

**Association of Irrigated Residents (AIR)**  
**Tom Frantz, President**  
**30100 Orange St**  
**Shafter, CA 93263**



**October 24, 2012**

**RE: CEC permit application 08-AFC-8A HECA**

**This is both a status report and data request from AIR.**

**Status report:** Although AIR is disappointed in the disrespect shown to our attempted question about water supply, towards the end of the last workshop in Sacramento, we will continue to participate in this process as intervenors. The impression we had at this meeting is that Robert Worl, representing the CEC, inappropriately interfered in the public discovery process by deciding personally whether a question could be asked. In essence, AIR was prevented from asking Occidental Petroleum representatives at this workshop a relevant question, based on an earlier response from HECA, by interruptions from both HECA and Robert Worl. At that point AIR decided it needed to leave the meeting and not waste any more time listening to this kind of disrespect.

It is becoming more and more obvious to AIR that the CEC is not interested in participation by the general public in this permit process. The way the public was treated at the last meeting in Tushman and now this most recent meeting in Sacramento is an example of a government agency saying public input is needed (because the law requires it) but not making it possible for the public to participate fully. The impression is that the CEC thinks the general public, local affected residents, and groups like AIR are not sophisticated enough to participate in this kind of process so there is no problem in minimizing their opportunities whenever possible.

Of course, there is no appeal to anyone but the CEC so we have a problem without a solution. It is like mice begging the cat for a chance to plead their case before the cat eats them.

### **Data Request #12**

Previous AIR data request number 6 and the response from HECA are as follows:

## DATA REQUEST

6. *The public needs to hear what the mitigation for the loss of prime farmland is going to be for HECA so it can comment on that proposed mitigation.*

## RESPONSE

As with all other aspects of the HECA Project, the Applicant will comply with all laws, ordinances, regulations, and standards. Of the approximately 1,100 acres of land used for the HECA Project, approximately 60 percent will remain in active agriculture. The 453 acres that will be removed from active agriculture represent approximately 0.07 percent of the Prime Farmland in the County. Loss of such a small percentage of prime farmland does not result in a significant impact, so the Applicant does not contemplate any further mitigation at this time.

This response is an insult to the farming industry of Kern County and to the farmers of the area next to the farmland HECA chooses to destroy with their intrusive power plant. The land in this area is arguably some of the best farmland in Kern County and any loss of this land to industrial development is significant.

The loss of prime farmland is cumulatively significant under CEQA. Mitigation is necessary and there is plenty of precedent such as housing developers putting funds into an existing San Joaquin Valley farmland trust program such as the one found in this link: <http://www.sequoiariverlands.org/agricultural-land-trust.html>

An appropriate mitigation is to pay for agricultural development easements on prime farmland that has development potential in the near future. Normally, this would be land located near to other commercial development. Preserving prime and endangered farm land at a 2:1 ratio of preserved land to removed land is also appropriate.

Given these facts, please discuss in greater detail why HECA feels mitigation of the loss of 450 acres of prime farmland is not necessary?

## Data Request #13

At the workshop in September AIR attempted to question Occidental Petroleum representatives about a potential water supply to the HECA project. AIR's question was rudely interrupted by both the applicant and Robert Worl of the CEC. Because of this interruption, AIR decided to treat the applicant and the CEC as the small child they were imitating and refused to participate in the meeting any further. AIR will now ask the question again for Occidental Petroleum representatives to answer.

Is there enough produced water in the area where Occidental will operate with the CO2 injection project to supply HECA with their process water needs? This question is asked without regard to the quality of this water. What would be the best quality of produced water available to the HECA project in terms of TDS. HECA has said they wish to use water that is marginally brackish in the 1000 to 2000 TDS range. Is there sufficient produced water available from Occidental that would be in the 2000 to 20,000 TDS range? This question is asked because clearly there is technology available that would

clean water, for example, from 10 or 20,000 TDS down to 2,000 TDS for a cost that may not be unreasonable given all the circumstances.

#### **Data Request #14**

The so-called “brackish water” that will be pumped out of the ground for the plant water is said to be between 1000 and 2000 TDS. Water of this quality is usable irrigation water for several crops grown in the area, specifically pistachios and pomegranates. The total water to be pumped is stated to be approximately 7,500 acre-ft per year. This is obviously enough water of good enough quality to irrigate at least 2,500 acres of pistachios. The applicant states that pumping this water is a benefit to farmers in the Buena Vista Water District.

AIR agrees that there is a potential for pumping this water to benefit a few farmers in the immediate vicinity of the pumps. It is possible that fresher, less brackish water may infiltrate the area of the pumps and benefit both HECA and local farmers with pumps nearby.

How near to the HECA pumps is there estimated to be a benefit of fresher water taking the place of brackish water such as described above?

If fresh water migrates into the pumping area, where does it come from ultimately? The choices are (1) ground water that has been there forever with no known source other than ancient percolation of rain water and Kern River flooding or (2) it is much more current water from the Kern River Drainage and is actually a draw on the Kern Water Bank which is a few miles east of the HECA project itself. This question is about how the ground water is replenished in this general area or part of the valley.

If the applicant admits that this water is ultimately from the Kern Water Bank then please discuss how HECA will replace this water to all the owners in the Kern Water Bank. Members of AIR use water on occasion that is stored in the Kern Water Bank. I personally used water from there this summer on my almond trees which was distributed through the Shafter-Wasco Irrigation District system. Please explain why you are proposing to take water from these other users so that ultimately, 2,500 acres will no longer be farmed in Kern County because of the loss of this water.

**Note:** The next several data requests will be made on behalf of residents, landowners, and employees who live and work nearby the proposed HECA project. They have asked these questions in writing and their questions have been posted on the CEC web pages. Some of them tried to ask these questions in person at the July meeting in Tushman where they were rebuffed with unfair time limits and interruptions. Unfortunately, the CEC does not seem to have a requirement that their questions be answered because they are not intervenors. With few exceptions, and at the discretion of CEC staff, their questions

are basically being ignored. Therefore, AIR will now ask on their behalf questions they seem to be asking so that at least some of their questions will be addressed. In each data request of this nature the original written letter or note is copied for better clarity.

### **Data Request #15**

July 16, 2012

To C.E.C.

08-AFC-8A

TN # 66250

JUL 16 2012

I write this letter on behalf of all members of the public who attended the July 12, 2012 Hydrogen Energy California (HECA) meeting in Tupman, Ca. The meeting was held in front of the California Energy Commission. The U.S. Department of Energy, Sierra Club, Central Valley Air Quality Coalition, and Center on Race, Poverty and the Environment were among those attending. HECA and other organizations represented on the panel were given ample time to present the proposed project and discuss its benefits and possible downfalls, the public was not. The public had performed research and brought evidence to the meeting substantiating claims to the project's negative impacts, yet each member was limited to three minutes of time and then told to wrap it up or finish statements when the three minutes were up. Much of the information that was being presented had not been previously discussed or considered and is vital to the viability of the project as well as the health and wellbeing of the community for which this project effects. Simply allowing the public to present the rest of its concerns, or elaborate on the ones presented, in writing is a disservice to other members of the public who attended this meeting to further their knowledge of the project's impact upon themselves and their communities. The public portion of this meeting was not what it was intended to be and therefore this meeting should be reheled and everybody involved should be given ample time to speak and listen.

Thank you

(sent by email: cliffy harding [woooooshka@gmail.com])

### **Please answer this concern from Mr. Harding:**

Mr. Harding describes above how the July 12 meeting in Tupman was insufficient for the public to give their input and learn the answers to their questions. How do both HECA and the CEC answer this concern?

### **Data Request #16**



HECA Project –  
Public Scoping Meeting for EIS

PUBLIC SCOPING MEETING COMMENT FORM

Must be received on or before July 27, 2012  
(Please print clearly)

California Energy Commission

DOCKETED  
08-AFC-8A

TN # 66248

JUL 16 2012

Questions for the applicant:

- ① What is the estimated S price currently available in the Elk Hills reservoir?
  - ② What data is the 3m tons of CO<sub>2</sub> P.Y. based on? such a round figure is too easy, is this based on startup quantities or lifetime estimates?
  - ③ Are there required offsets for coal transport?
  - ④ Are there required offsets for NO<sub>x</sub>, SO<sub>2</sub> etc.?
  - ⑤ Is there a gasification process tech that is not considered by the applicant, other than the B.E. & Mitsubishi retrofactors? Would this tech use less or more coal in the process?
- Thanks!

Name: Daniel Bell  
Mailing Address: 3414 Lakewood Dr.  
City: Bakersfield  
State: Ca.  
Zip: 93305  
Phone: (661) 322-4991  
Email: DBellLaw1@gmail.com

AIR requests detailed answers from HECA to all five of Daniel Bell's questions numbered and stated in the above comment form.

Data Request #17

To: CEC Regarding HECA  
Docket No, AFC-08A  
July 12, 2012

08-AFC-

TN # 6624

JUL 16 20

My name is Trudy Douglass. I was born and raised in Bakersfield. I am neither a political nor environmental activist. I am an outraged citizen of Kern County. I am here to object to the proposed Hydrogen Energy California (HECA) project.

SCS Energy is treating our county like a third-world nation by choosing to burn the dirtiest fuel possible to run their chemical factory. This company has participated in building three natural gas energy plants. (Astoria Energy, Marcus Hook, and Newington Energy) One of which, Astoria Energy, won the 2007 Pacesetter Plant Award. Why then are they proposing to transport coke and coal for hundreds of miles when they can get natural gas from just a few miles away? Why aren't we offered this cleaner alternative?

SCS Energy is trying to permit PurGen One, a coal gasification project in New Jersey. I am sure that they have been diligently offering gifts and promises to smooth its path as they have done here but, at this time New Jersey has had the wisdom to say "NO". The SCS project in New Jersey is in an industrial area, a Dupont chemical factory designated as a toxic waste site, with ocean breezes to disperse pollution and a thick sandstone formation to hold the CO<sub>2</sub>. Our site is farm land, at the closed end of a valley, with porous shale to hold the CO<sub>2</sub> until holes are drilled through our protective barrier for oil recovery.

SCS Energy represents capitalism at its worst, where government and private interests combine to overwhelm the people's health and safety. This company has the potential to reap enormous profits from our air, land and water by:

- Burning of oil refinery waste.
- Producing hazardous, chemical fertilizer. (See attached document.)
- Supplying Occidental Petroleum with CO<sub>2</sub> to loosen oil for recovery.
- Selling off extra electricity at peak prices.

In return for what SCS is taking from us we receive the permanent #1 spot for the worst air in the United States, the really good chance that the CO<sub>2</sub> will come up with the oil (making our air even worse), the real possibility that this chemical factory will leave us with a toxic waste site and a park for Tupman. There are people in Sacramento and Kern County who have put short-term, short-sighted gain above public welfare. They have been lulled into disregarding the long-term dangers of coal gasification in our valley.

If this project goes forth as proposed we will have higher medical costs from pollution based diseases: asthma, emphysema, cancer and heart disease, reduced longevity, lower productivity of the people and the land,

and higher fees and fines for our failure to meet EPA particulate standards. Although HECA is the polluter they avoid censure by buying those “magical” Air Credits with our own tax money to offset their offense against us. This is legal but is it right?

Building this facility in Kern County goes beyond foolish to criminal. If the Energy Commission feels that California desperately needs a new resource for electricity, they should permit SCS for a natural gas facility. If it is to be a chemical factory, let the County of Kern decide and let them put the facility in an area zoned for the manufacture of hazardous materials. Please act at least as wisely as New Jersey.

In conclusion, please schedule some of the other meetings in Bakersfield and Arvin so that people with disabilities or transportation problems can attend to share how this chemical, coal gasification factory will effect them. As you have experienced, the drive to Elk Hills is lonely and a little dangerous at night.

Trudy Douglass  
5408 Inverrary Crt.  
Bakersfield, CA  
93309

**AIR requests answers to Ms. Douglas’s direct and implied questions restated below.**

- (1) Why is SCS proposing to transport dirty Coal and Coke to the area when cleaner natural gas is available locally?
- (2) Why did New Jersey say no to a similar coal gasification plant proposed by SCS even though the environmental damage there would be less than in the San Joaquin Valley?
- (3) What does HECA have to say about charges that they will make the air in the #1 worst spot for air quality in the nation even worse?
- (4) What does HECA have to say about making our air quality worse and causing us to pay more fines like the \$29 million annual fine we are currently paying for failure to meet the one-hour ozone standard?
- (5) What does HECA have to say about shortening the life span of residents in the San Joaquin Valley and also making them sick because of the pollution they will put into the air?
- (6) How is farmland an appropriate place to put a facility that manufactures hazardous chemicals?
- (7) Will HECA soon go to Bakersfield with CEC staff and commissioners to answer all questions from local residents?

**Data Request #18**



July 19, 2012



Attention Of:  
Jennifer Jennings

HECA Project -

Public Scoping Meeting for EIS Commission

Mr. Pozzuto,

## PUBLIC SCOPING MEETING COMMENT FORM

Must be received on or before July 27, 2012  
(Please print clearly)

DOCKETED

08-AFC-8A

JN # 100351  
JUL 26 2012

I believe I have a feasible, workable solution to the problem that concerns the (HECA PROJECT) at the Buttonwillow-Tupman-Palm Farm site! Most of the residents of Tupman are not wealthy, they are good people that mostly never had much.

So, why don't you (HECA) come up with a equitable figure to pay each property owner; that would be a tax free monetary agreement! I have read the documents using the "IMPACT" structure for the financial forecast of the (HECA) project. It stands to make "BILLIONS", so, why can't you spend a few million to obtain the land in Tupman?

There are only about 80 or so property owners in TUPMAN. Then you bulldoze the area and you are right on RIK HILLS OIL reserve and "OXY". Plus, you don't have to cross over the Aquaduct or burrow under it. Etc.

Continued or reverse

Name: Sarah E. Goatcher - Resident Since 1976

Mailing Address: PO Box 37

City: TUPMAN, CALIFORNIA

State: CALIF.

Zip: 93276-0037

Phone:

Email:

NONE

## Comment forms may be mailed to:

Mr. Fred Pozzuto  
U.S. Department of Energy  
National Energy Technology Laboratory  
3610 Collins Ferry Road  
P.O. Box 880  
Morgantown, WV 26507-0880

## Comment forms may be sent by e-mail to:

fred.pozzuto@netl.doe.gov

P.S.  
This is Copies of a letter  
I sent to Mr. Pozzuto!

I wanted you to have them too!  
I truly feel that "HECA-PLANT" is going to kill people!



No people to worry about, possible accidents or survivors suing the company. You own it all.

The farmer's get to keep their land, and it is beautiful farm land; and they continue farming for the food we all need.

And we move on to greener pastures and hopefully never have to meet this type of situation again.

Granted we are somewhat rough around the edges; but we are not totally stupid.

In case you are laughing or cussing at me right now, I want you to know that I am very serious pertaining to the contents of this letter.

Thank you,

Sarah E. Goatcher

PO Box 37

TUPMAN, CA. 93276-0037

Please fold here and tape before sending.

Return Address:



Sarah Goatcher  
PO Box 37  
Tupman CA 93276-0037

P.S. Also, if this plant "HECA" does come into reality, I consider everyone in TUPMAN, as an endangered SPECIES. The fumes from ANHYDROUS AMMONIA ARE DEADLY!

Our prevailing Wind Comes From That Direction of the HECA-SITE!

Please answer the following direct and implied questions from Ms. Goatcher of Tupman:

- (1) What would it cost to buy the town of Tupman for the HECA project? What cost savings would there be?
- (2) What are the potential ways that accidents at HECA could kill either nearby workers or nearby residents or people who live in Tupman? Please use your imagination and present the worst possible accidents that are possible.
- (3) Are the fumes from Anhydrous Ammonia deadly?
- (4) Does prevailing wind in Tupman come from the direction of the HECA site?

Data Request # 19

**DOCKETED  
08-AFC-8A**

TN # 66385

JUL 30 2012

**From:** Kathleen Parsa [<mailto:kathparsa@gmail.com>]  
**Sent:** Monday, July 23, 2012 9:23 PM  
**To:** [opinion@bakersfield.com](mailto:opinion@bakersfield.com)  
**Cc:** Worl, Robert@Energy; [PublicAdvisor@energy.state.ca.us](mailto:PublicAdvisor@energy.state.ca.us); [fred.pozzuto@netl.doe.gov](mailto:fred.pozzuto@netl.doe.gov)  
**Subject:** docket # 08-AFC-8A

Bakersfield is my hometown where I still have close family ties. It breaks my heart to read about the proposed Hydrogen Energy CA plant that will certainly increase air pollution.

**Hello!** It has already been determined that Bakersfield has the worst air quality in the nation! Who wants to make it worse?

Another major concern is their proposed plan to bury 2.5 million tons of carbon dioxide a year in the nearby Elk Hills oil field. USA TODAY reported a study by The National Research Council (June 16, 2012) that burying carbon dioxide may pose a higher risk of seismic activity.

**Hello!** This is ALREADY earthquake country! Moreover, the San Andreas Fault is nearby.

**Hello!** Is anyone paying attention?

Kathleen Fanucchi Parsa

1790 Monita Drive  
Ventura, CA 93001  
805-653-1624

cc: CEC, DOE

**Please answer the direct and implied questions of Ms. Parsa restated below:**

- (1) Will HECA add to the air pollution in the Bakersfield area? Does the Bakersfield area already have the worst air quality in the nation?
- (2) Can the injection of CO2 pose a higher risk of seismic activity? How close is the San Andreas Fault? How near is the closest known fault line or area of recorded seismic activity?

**Data Request #20**

To CEC Regarding HECA  
Docket 08 AFC 8A  
July 12, 2012

California Energy Commis
<b>DOCKETED</b>
<b>08-AFC-8A</b>
TN # 66249
JUL 16 2012

Parts were read at the Tupman meeting July 12, 2012

My name is Chris Romanini and our family is the 4th generation to farm in the Buttonwillow area. We have been stewards of the land for over 100 years and want to pass to the 5th generation a healthy, viable future in farming. As neighbors of HECA's proposed plant, we have concerns.

Permitting process: In attempting to collect data, I have had a difficult time locating agencies and people permitting this plant. Please make it easier for us to be involved. I'm requesting a flow chart of permits needed, agencies processing the permits, contact people with phone numbers, and a time line.

Rail: Where will it be? It is impossible to comment on how it will affect our ranch if we don't know where it is planned. When will they present their rail route for the Buttonwillow area?

Eminent domain: HECA states they do not have the power of eminent domain. Will the CEC promise that eminent domain will not be forced on us for this project by any government or public entity or by HECA?

Traffic: I can't imagine the huge volume of vehicles. They will be passing our farms, competing on the road with our slow moving farm equipment, flocks of walking sheep, and school buses, sometimes in dense Tule fog. If rail brings the coal, the roads will still be clogged with employees, coke trucks, waste removal, and fertilizer business. Will you require that they specify a route? Who will enforce them keeping to the route?

Health: Kern County has the worst air in the nation. And once HECA cranks up, our air will decline further. Some of our employees and my family members have asthma, cardiovascular disease, or cancer. The closer you get to the facility, the more concentrated the toxics and particulate matter will be, and thus the higher our health risks. I am requesting that HECA show they are a good neighbor. Require them to construct an independently monitored air monitoring station on the exterior perimeter of their plant so we know the degree of concentration we in the neighborhood are exposed to. (CEC pg 5 Issues Identification Report [IIR] says NO major health issue. I challenge that)

Fertilizer: It is scary to be a neighbor of huge amounts of hazardous, unstable, toxic chemicals stored under pressure. What happens when there is a leak or an explosion? Accidents happen. Contact is deadly. How safe is my family and our employees if a concentrated volume is released? (CEC pg 5 IIR says no issue with hazardous material I challenge this))

Production: We know pollution decrease crop production. As neighbors, their "stuff" will effect my production. ...so I lose income. There is also my potential loss from accidents. I'll also lose production from low level emissions of toxics that can accumulation on our crops... dangerous things like mercury and other heavy metals. (pg 5 CEC IIR says NO socioeconomic issue I challenge)

Jobs: What if the consumer learns that HECA's contaminates got onto our crops, and the consumer does not want to buy it any more? HECA talks about creating jobs. I'm requesting a study on how many jobs we will LOSE if words gets out that Buttonwillow's crops are contaminated? Local crops include almonds, pistachios, grapes, tomatoes, onions, and alfalfa. (pg 5 IIR says NO socioeconomic issue. I challenge that)

Ground Water: What if the unforeseen happens.... a problem with their pipes, an earthquake, an accident, or an unknown that has not been regulated yet, or something else. Our ground water will be contaminated. Contaminated water is impossible to correct.

Land Use This is permanent loss of prime farm land. What will replace it?? Not only is HECA's prime farm land lost forever, but the value of neighboring prime farm land is affected. And zoning. When does the CEC get the authority to permit a chemical factory on ag zoned land? They need a zone change. That needs to be handled by the county. (pg 5 CEC IIR say no issue with land use. I challenge that)

As the proponents return to their homes in far corners of the state and the east coast, we Buttonwillow families are left to breath and deal with the consequences of their stimulous funded dream. Please consider our risks.

Sincerely

Chris Romanini  
John Romanini and Sons  
PO Box 786  
Buttonwillow, CA 93206

**Please answer the direct and implied questions from Ms. Romanini which are restated below:**

- (1) What is the exact role of each of the following in processing this permit application: the CEC, Kern County, the San Joaquin Valley Air District, the DOE, the Buena Vista Water District, DOGGR, the EPA, CARB, and any other government entities not mentioned above? What is the projected timeline for each of the above government agencies to complete their analysis and give their stamp of approval for the project to proceed?
- (2) Where will the railroad spur be located? Please provide a map with details of the exact right of way needed so that each affected land owner will know exactly what is proposed on their respective properties.
- (3) Will the CEC and HECA guarantee that they will not approve or proceed with the HECA project if eminent domain is used by Kern County or any other government agency to take land needed for the project or the rail spur?
- (4) What is the exact route employees and trucks will take to the site? Please include all trucks of any nature. Will any special procedures for this traffic be formally

- followed when there is heavy Tule fog in the area? How will the quantities of dust from the shoulders of roads used by HECA affect the adjacent crops and what will be done to decrease this dust?
- (5) Will people working on nearby farms be affected by particulate emissions and higher ozone levels because of HECA? This should be addressed assuming some of these people will already have asthma or heart and lung problems. Will HECA agree to put an air monitor on their perimeter so that local residents can understand what their air quality is every day throughout the year? Could this monitor be hooked into the San Joaquin Valley real time advisory network so that readings would be available within an hour or two of when they were taken?
  - (6) How safe is a nearby person living or working in a field if there is a release of CO<sub>2</sub> or ammonia in significant quantities from HECA? What other gases which are hazardous in concentrated conditions could be released and what harm might they do to someone enveloped in a cloud of these gases? What types of explosions are theoretically possible given the types of materials in gaseous, liquid, or solid form that will be present at the HECA site? How big of an explosion is theoretically possible and what kind of damage could be expected at various distances from such a worst case scenario?
  - (7) Will measurable mercury ever be released onto nearby cropland, soils, trees, or crops from normal operations? Is any type of accidental release of mercury possible from either the facility or from a truck or rail car hauling it away? What other contaminants or chemicals or substances not currently found in the area could possibly escape from HECA and end up in nearby soils or crops? Will HECA compensate local farmers for any decrease in their property values if this happens because HECA is built nearby? Will HECA compensate farmers for any loss of crop production or crop value because of HECA operations?
  - (8) What are the potential routes for groundwater contamination from the HECA project? What are the potential routes for groundwater contamination from the CO<sub>2</sub> injection just up the hill? What are the odds of groundwater contamination from each possible source?
  - (9) How is a chemical factory going to be justified in the middle of prime farmland? Is Kern County agreement with this land use enough or must the commissioners of the CEC also agree this is appropriate?
  - (10) What other risks are there to local farmers and residents, plus their crops, soil, and water, from this project that have not been mentioned in this data request?

## **Data Request #21**

Dear Sir;

I am a resident of Bakersfield CA and I am opposed to the proposed Hydrogen Energy California Plant based on the fact that we already have the worst air pollution in the country, our air basin has no outlet in the southern valley. The concept of "trapping" CO2 in ground formations is also unproven and I believe with the leaks we've suffered locally from high pressure injection wells that were supposed to "trap" drilling fluids but instead wound up polluting our local aquifer resulting in the City of Bakersfield having to abandon local wells. Once again I am opposed to the plant.

Thanks for your time.  
Dean Clason  
Bakersfield CA



Please answer Mr. Clason's questions restated below:

- (1) Have high pressure injection wells in Kern County developed leaks which ended up polluting local aquifers? If this has happened elsewhere what is different about HECA? Is this a valid concern?
- (2) Is there an outlet at the Southern end of the San Joaquin valley for the pollutants emitted by facilities such as HECA?

**Data Request #22**



Dear Mr. Pozzuto:

TN # 66347

JUL 26 2011

When I attended the HECA hearing in Tupman (about 45 minutes from my home in Bakersfield), I was undecided about the proposed hydrogen plant in Tupman. Since the hearing I have become convinced that this plant is a bad idea for Kern County.

My chief reason is that the plant will add to the already bad air quality we experience in Kern County. There is no earthly reason (other than financial gain) for this company to be transporting thousands of tons of coal daily into Kern County. There is no argument that the coal will add pollutants to our air and worsen an already bad situation. The area of the plant is zoned for agriculture, and contaminants will obviously be landing on crops in the fields near the plant. Daily truckloads of coal (powered by diesel, of course) will also add fuel contaminants to the air. Our kids already have high rates of asthma and respiratory ailments because of poor air quality. Our college graduates often leave Kern County, citing the chief reason as poor air quality.

The HECA plant will add to our problems. This plant is not a "clean energy" solution to our nation's energy problems; it is complicating our already terrible air quality problems.

In addition, the HECA plant will use "brackish" water (huge quantities of it) as a coolant on the theory that there are huge quantities to be had in this valley. As one farmer said at the hearing, slightly brackish water can be used on certain crops, especially when mixed with fresh water. This isn't necessarily waste water we are talking about. It is water already being used successfully for crops. And what will happen when the brackish water is gone? The plant will then begin to use fresh water, which is currently in diminished supply because of a drought that may well continue into the next century.

The HECA plant in Tupman is a bad idea for Kern County. Federal funding to support such a project is absolutely ridiculous in this place at this time. Environmental groups such as Sierra Club have it right when they maintain that this project will be damaging to the health of citizens as well as to the farming community in this area. The taxpayers' \$400 million investment could be much better spent funding solar panels on businesses and houses in Kern County. This is an energy solution my family and I could support with enthusiasm.

Sincerely,

Marjorie Bell  
(Retired teacher)

### **Please answer these implied or stated questions from Ms. Bell**

- (1) Is there any reason other than financial gain for HECA to bring massive quantities of coal into Kern County and make what is the worst air quality in the nation even worse?
- (2) Will pollutants from the trucks and trains coming to and leaving the HECA facility add direct contaminants to nearby crops and soils along the routes of movement?
- (3) Why is this plant called "clean energy" when it is adding so many hundreds of tons of criteria air pollutants to the already unhealthy air in this part of the valley?
- (4) Does HECA believe the "brackish" water they are proposing to take is not usable to others in the valley? Please explain your answer. When the brackish water becomes fresh (below 1000 TDS) what is the plan for water? How long will it take the brackish water to become fresh?
- (5) How much non-fossil fuel based energy (wind, solar, wave) could be funded, at current rates of subsidy and stimulus, for the \$400 million the federal government may possibly give to HECA?

- (6) Which members of Congress have said, on the record, that the DOE subsidy for the HECA project is wrong (for various reasons) and should not happen? John McCain is at least one we know of already.

## Data Request #23

### Energy - Docket Optical System

From: Arthur Unger [artunger@att.net]  
Sent: Thursday, July 26, 2012 3:34 PM  
To: Energy - Docket Optical System  
Subject: code 08-AFC-8A

Categories: Ready to Docket

DOCKETED  
08-AFC-8A

TN # 66357

JUL 26 2012

Here are some of my concerns that the HECA DEIS must respond to.

The DEIS should quantify the plant's impacts on local air quality. How much PM 10, PM 2.5 and ozone from trains and trucks transporting coal from New Mexico, with and without a railroad spur to the plant? How much air pollution from employees driving to the plant, trucks carrying supplies to the plant and trucks taking urea and coal ash from the plant? How much NOx from burning hydrogen? How much premature death do EPA and other scientists think now occurs in Tupman, Lamont and Arvin due to air pollution? Would that change if the plant is built? Note that Lamont and Arvin have the worst air in this area of severe non-compliance with NAAQS.

How much of what quality (salt content) water are needed as a source of hydrogen and for other purposes? Will we ever be able to reuse some of that water?

How much of what quality farm land would the plant and the approach roads occupy? Is that land only able to produce alfalfa and cotton or could it produce food for people?

The DEIS should compare the jobs and energy provided by spending \$408 million on this project with spending \$408 million placing solar PV panels on homes, parking lots and businesses. Include consideration of no interest loans for roof-top solar, to be repaid by house owners who pay two-thirds of their pre solar panel monthly electric bill to the government; the government would use that money to pay the owner's current electric bill and to pay off the loan. A more complex plan would require the home owners who were given free solar panels to pay their current, post solar installation bill at twice the current rate per watt; half of that payment would go to pay the loan and half to pay the current bill. The military of the USA is going to place solar PV panels on 850 homes - <http://cleantechnica.com/2012/07/17/u-s-air-force-gets-solar-power-from-solarcity-continues-clean-energy-push/>; this experience should make it easier to do the paper work my suggestion would require.

How much GHG will the cars, trucks and trains that bring employees, fuel, equipment and waste to and from the plant during construction and operation make? How much GHG will the oil recovered from Elk Hills make? I think the world's economy can be managed so folks will not suffer if the amount of oil the world recovers decreases sooner rather than when it actually runs out.

Will the plant make any ammonium nitrate? What are the chances of ammonium nitrate exploding by accident or from terrorism? Remember Texas City, Texas in 1947.

What impact will mining this coal have in New Mexico? Will NM be mitigated in the HECA EIS or is there a separate EIS for the New Mexico coal mines?

How much air pollution and greenhouse gas will the oil recovered in the course of the HECA project emit?

The dinner HECA (SCS Energy) hosted for so many people on 7 12 12 was excellent. I had two large portions of potatoes and string beans, so I had a vegan meal; that is how I conserve water, farm land and reduce my carbon foot print. One way to say thank you to SCS would be to contribute money to a charity designated by HECA. Another way is to give to a charity I designate, but in HECA's name. I would have responded to a sign or collection box.

Please provide me with all follow up documents and announcements, via web sites and e-mail, concerning this project. No paper documents please. Please acknowledge receipt of these comments to [artunger@att.net](mailto:artunger@att.net).

Thank you for the opportunity to comment,

Arthur Unger

2815 La Cresta Drive

Bakersfield, CA 93305-1719

(661) 323 5569

[artunger@att.net](mailto:artunger@att.net) preferred

**Please answer the following direct and implied questions from Mr. Unger:**

- (1) Will premature death rates increase, even slightly, in places like Tupman, Lamont, and Arvin, because of the added air pollution from the HECA proposal? This analysis should include all aspects of the proposal.
- (2) What is the exact range of TDS in the water needed for this project? How much water is recycled by the project and how much per day is actually used and not recycled or recovered?
- (3) Is the farmland to be occupied by the HECA site currently capable of growing good quality food for direct human consumption?
- (4) Please compare the quantity of solar based energy the \$408 million from the DOE could provide, using the method proposed by Mr. Unger, with the energy this power plant will provide with maximum proposed electric production.

- (5) How much GHG will the oil recovered by the CO2 injection produce when it is consumed? This is important because the applicant states this oil would not be recoverable without this CO2 enhanced oil recovery process.
- (6) Will the chemical factory produce any ammonium nitrate and in what quantities?
- (7) What is the environmental damage, including GHG, criteria air pollutants, and toxic emissions from the mining of the coal which will fuel HECA?

**Data Request #24**

DOCKETED  
08-AFC-8A

TN # 66348

JUL 26 2012

To Whom It May Concern,

My name is Brad Bittleston a resident of Buttonwillow, CA. I am writing you in opposition to the purposed Coal energy plant that is being built by HECA. My Family and I are truly concerned that the proposed Coal Plant will end our dreams as we have built and lived them. Before I-5 was I-5, Stockdale Ranch was started with the beginnings of having lofty dreams. Today those dreams are a reality. I fear that with the new addition of a Coal energy plant being built practically in our front yard that those dreams that we have had for so many years will be crushed. Stockdale Ranch was started from a dirt field and with a lot of hard work it has grown into the dream that my Family and I enjoy today. My Wife's Family began building Stockdale Horse ranch from a wheat field. When they started there were no roads, no utilities and no home to live in. Today, many decades later, they don't know another life. The horse breeding operation is in full swing and very successful—they are the Leading Breeders of Appaloosa Show Horses in the World.

We've watched the air quality go from simple Tule fog to brown skies requiring the kids to stay indoors some days. We understand with the Coal Plant, not only our lives will change from the commotion, the visible changes across the countryside and the increased traffic on our highway, but the quality of life that we have been blessed with may cease to exist.

The air quality in this valley is a very serious matter, which contributes to certain illnesses such as Asthma. The type of Asthma that I am referring to is a chronic respiratory disease characterized by temporary coughing, wheezing, shortness of breath and chest tightness. Childhood asthma is widespread in the Central Valley and is often linked to the Valley's poor air quality, heavy trucking corridors, and physical geography. Results from the 2009 California Health Interview Survey estimate that 13 percent of children (ages 1-17 years) in Kern County have been diagnosed with asthma during their lifetime. These are real facts so how can you possibly believe that the 'Not in My Back Yard' syndrome works for us and NOT your families? I am sure you have children that you would be scared to subject them to this type of air! Can't a more remote location somewhere else that can tolerate the changes and negative impacts be a more



viable option? '

I would like to take this time to personally invite you to our paradise, our home and our ranches and see our lives and look across the fields at what you are proposing and see if any of YOU would like your lives changed or stopped? Where would you like us to go to start again building our dreams and our business and our lives again? We would be ruined. We obviously can't stay here. The affects of the coal plant would be injurious to the health of our valuable show horses and breeding stock as well. And what about our guests that come to visit and search for their new dream horse? You don't think that unsightly monstrous set of smoke stacks you propose and the busy trucks en-route wouldn't affect their decisions and enjoyment we provide and have since the late 1960's? Before your committee makes any decision please ask yourself this (do the needs of the one out way the needs of the many). Just because this project may be a good financial benefit for a few people doesn't give them the right to destroy the health and lively hoods of the whole County. Our air is bad enough and we don't need any more pollutants like the 1000 trucks that are going to be servicing this plant if the rail road doesn't go through.

What happened to the idea of clean energy projects, like solar? Even though this project is labeled to be clean there are many facets that are not. Such as the 1000 trucks that will be passing in front of my home every day out of the year. If by some chance you ignore our pleas and decide not to listen to reason and approve this project can I ask one thing and that is please put a stipulation that all trucks that service this plant must be LNG certified.

I have said what I am going to say and I hope that you know that our lives are held in the balance of your decision/hands. Please make the right one and listen to the people.

X

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Brad Bittleston

**Please answer the following direct and implied questions from Mr. Bittleston:**

- (1) Stockdale Horse Ranch is breeding special horses and entertaining guests near the proposed HECA project. How will HECA operations affect this operation? Would it be wise for a visitor with asthma to stay at this ranch for more than an hour during a time when atmospheric conditions lead to the buildup of pollutants in the area?



- (2) Are horses any less or any more sensitive to the air pollutants that HECA will be adding to the area?
- (3) Would a horse ranch with many visitors benefit or be harmed by a sudden increase in hundreds of coal, coke, fertilizer and waste trucks traveling on the two-lane roads leading up to and past the ranch? Will a train blocking the roads in the area on an almost daily basis help or hinder such a business?

**Data Request #26**

To: DOC and CEC  
DOC 08-AFC-8A  
From: Douglass

08-AFC-8A

TN # 66427

AUG 02 2012

The American Lung Association's, State of the Air 2012, is a summation of many long-term studies on the quality of the air and the effect of polluted air on the population in the United States. They looked at ozone levels and particle levels from official monitoring sites across our nation for the years 2008, 2009, and 2010.

Pollution information by cities in the United States:

1. Bakersfield and Delano, California are tied for worst in "Cities Most Polluted by Short-term Particle Pollution". A total of 7 San Joaquin Valley cities are mentioned in ranks 1-5. (p.1)
2. Bakersfield is ranked worst in "Cities Most Polluted by Year-round Particle Pollution". A total of 4 San Joaquin Valley cities are mentioned in ranks 1-5. (p.2)
3. Bakersfield and Delano are in third place for worst "Most Ozone-Polluted Cities". A total of 8 San Joaquin Valley cities are mentioned in ranks 1-5. (p.3)

Pollution information by counties in California:

1. Kern County is ranked worst for "Counties Most Polluted by Short-term Particle Pollution". 3 San Joaquin Counties are in ranks 1-5. (p.4)
2. Kern County is ranked worst for "Counties Most Polluted by Year-round Particle Pollution". 3 San Joaquin Counties are in ranks 1-5. (p.5)
3. Kern County is in third place for worst "Most Ozone-Polluted County". 3 San Joaquin Counties are in ranks 1-6. (p.6)

High ozone days in Kern County 2008-2010:

1. 209 Orange-Unhealthy for Sensitive Groups
2. 48 Red-Unhealthy
3. 2 Purple-Hazardous (p.7)

High particle days in Kern County 2008-2010:

1. 126 Orange-Unhealthy for Sensitive Groups
2. 21 Red-Unhealthy
3. 2 Purple-Very Unhealthy (p.8)

Unhealthy air quality is harmful for the whole population but, the Lung Association says that children birth-18 and adults 65 and older are the most at risk. Lung diseases are the first to be listed: pediatric and adult asthma, chronic bronchitis, and emphysema. (p8-19) People living in areas with high ozone and particle pollution and who have cardiovascular disease and/or diabetes risk premature death. One study is finding that fine particle levels are associated with lung cancer in people who have never smoked. (p.11) New EPA guidelines will look at even smaller particles than what is now measured.

According to the San Joaquin Air Pollution Control Board's 2011 report the people of the San Joaquin Valley are working to comply with the EPA regulations. Our air quality

is better than it has been in 10 years. Our efforts are achieving cleaner air. A coal/coke gasification factory will erase what progress we have made. We have complied with EPA recommended no burn days. You must mandate that HECA follow the same rules we do. If you approve this proposal our families will have to endure the loss of many more loved ones and deal with lung diseases that rob vitality and joy from life. The coke and coal will be combusted 24 hours a day, 7 days a week, 365 days a year, adding 520 million tons of pollution to the air, raising even higher our levels of ozone and particles.

The Lung Association has written a report Toxic Air: The Case for Cleaning Up Coal-fired Power Plants. Coal-fired plants are among the largest contributors to particulate pollution, ozone, mercury, and global warming. You cannot tell me that gasification and sequestration are a clean solution for air quality. The Tupman facility will not even sequester the greenhouse gas, CO<sub>2</sub>. HECA will turn it over to Occidental Petroleum to play with. This plant will add more than 520 million tons of pollution a year for 30 years. The only clean solution is not to build this factory. The whole of Kern County is to be the test for this technology. Our lives are too high a price to pay for a science experiment that can only increase pollution of our bodies, air, land, water, and vegetation. 84 known hazardous pollutants are released from coal some of those are: arsenic, mercury, dioxins, formaldehyde, and hydrogen chloride. HECA will use an "old-school" fuel with a technology "face lift" but, coke and coal will still leave a poisonous and deadly residue.(p.10) Why isn't this project powered by natural gas?

You must be familiar with the topography of our valley and the unhealthy air that is trapped here. To permit SCS Energy to build this chemical factory fueled by coke and coal would be both irresponsible and criminal. The 520 million tons of pollution projected (not including the CO<sub>2</sub>) for each year is just the tip of the ice berg. No one really knows how well this process will work. This figure does not even include the cars, trucks, and trains transporting people and materials in and out of the site or the CO<sub>2</sub> that will not be sequestered.

To protect the lives of our children and our Senior Citizens please say no to SCS Energy. To protect our agricultural business, please say no to HECA. To protect the whole San Joaquin Valley, please say no to this chemical factory.

Trudy Douglass  
5408 Inverrary Ct.  
Bakersfield, CA  
93309

**Please answer the following direct and implied questions from Ms. Douglas:**

- (1) In the San Joaquin Valley, Farmers cannot burn agricultural waste and homeowners cannot burn their fireplaces when the air is bad. Will HECA agree to not produce criteria air pollutants such as NO<sub>x</sub> and particulate emissions when the air is bad and these other restrictions are in place for many valley residents?
- (2) In what ways will this coal project pollute the air in ways similar to other coal power plants in the USA? Even if the levels are less than other coal plants please note the similarities in type of pollution released including toxic emissions. Please include transportation related pollution in the answer. How would the pollution emissions from HECA change if the fuel used was natural gas instead of coal?

**Data Request #27**

I would like the following concerns to be considered by the U.S. Department of Energy before allocating money to the H.E.C.A. project:

DOCKETE  
08-AFC-8

TN # 66397

JUL 30 2011

The major pollution problem in our county is not CO<sub>2</sub>. In fact, CO<sub>2</sub> is the best fertilizer for the crops we grow. CO<sub>2</sub> is plant food and is necessary for the survival of anyone who eats plants or animals. On any given year the southern San Joaquin Valley has the worst air in the nation. PM 10, PM 2.5, Black Carbon, SO<sub>2</sub>, VOC, NO<sub>x</sub>, and other particulate matter are some of the pollutants that help contribute to this ranking. This project adds to the amount of these pollutants that are in our valley on any given day; increasing the likelihood that our children will suffer from asthma or other diseases and that our crops will have yield reductions. The fact that HECA will be using emission credits to offset these pollutants does not actually change the amount of these pollutants in the air if the credits come from facilities that are already effectively shut down, idled, or are operating outside of the southern valley.

HECA says that they will be producing 1,000,000 tons of nitrogen fertilizer per year and have stated to me and other members of the community that they will have a 45 day supply of this fertilizer on the site at all times. They have told me and other members of the community that roughly 50% of this fertilizer will be ammonium nitrate and 50% will be liquid Urea. Ammonium nitrate is an explosive material. It is the same material used by Timothy McVeigh in the 1995 Oklahoma City bombing. McVeigh used 5,400 lbs. of ammonium nitrate to blow up the Federal building in Oklahoma City. This plant will have 123,287,671 lbs. of ammonium nitrate on site; roughly 22,800 times the potential explosive energy as the 1995 Oklahoma City bombing. The ammonium nitrate will be sitting next to another explosive, compressed hydrogen. Remember that despite all safety precautions accidents still happen. This poses an enormous danger to the surrounding area. HECA will also have to truck off 52 loads of ammonium nitrate a day at 52,000 lbs. a piece. That means that every day for the life span of the plant, 52 trucks will be hitting the open roads with 9.6 times the potential explosive energy as the 1995 Oklahoma City bombing. This poses a serious national security threat, especially with the Midway substation roughly seven miles from the facility. The U.S. Department of Energy does not need blood on its hands if an accident or terrorist act occurs as a result of this project.

We will be taking some of the "greenest" farmland in the state out of production to build this plant. One of the attributes making this farm land so "green" is that the farmland the plant will sit on is irrigated by water that is largely gravity fed. The amount of California Aqueduct water that is used to irrigate this land is minimal. This means less carbon fuel emissions from lift pumps, less impact on threatened fish species, and less impact on endangered species dispersed by the footprint of the Aqueduct. If "going green" is the goal, shouldn't these things be considered?

According to multiple ground contour and elevation maps, the footprint for the HECA project sits lower in elevation than land deemed "Swamp" and "Overflowed Land" by the 1888 Miller-Haggin Agreement. This agreement also establishes a plan to drain and isolate land and then states that "it is expressly understood and agreed, that no party to this contract will claim any damage resulting from the breaking of such reservoir, levees or other works." In the early 1900's the United States Department of the

Interior Bureau of Reclamation entered into the "CONTRACT AMONG THE UNITED STATES OF AMERICA AND NORTH KERN WATER STORAGE DISTRICT, BUENA VISTA WATER STORAGE DISTRICT, TULARE LAKE BASIN WATER STORAGE DISTRICT, AND HACIENDA WATER DISTRICT," this contract states that "All rights of the Districts... under the above-mentioned Miller-Haggin Agreement...are hereby recognized by the United States." In 2007 the U.S. Army Corps of Engineers released the Isabella Dam Consensus Report. The report ranked the Isabella dam among the 6 highest risk and highest priority dams in America. The dam was later raised to the highest priority. There should be no federal funding for a project that is in a federally established flood plain/lakebed below a dam that is federally recognized as the highest risk in the United States. It has been brought to my attention that the U.S. Army Corps of Engineers estimated the cost of fixing the dam at roughly \$500,000,000. If this administration wishes to rebuild America's infrastructure it would be much better served spending its \$400,000,000 repairing the dam. The Kern River is the fastest falling river of its size in the United States. This means that it has more potential energy per mile than any other river of its size in the United States. The U.S. Department of Energy could re-allocate these funds to rebuild our dam, or a series of dams and improve on our hydro-electric production creating truly "green" energy while re-establishing our water storage capacity.

All forms of nitrogen stored at the facility add to the damage caused by a flooding event. A flood would disperse the nitrogen (a known ground water pollutant in the southern San Joaquin Valley) throughout the lakebed and contaminate our ground water supply.

The "Brackish" water used at the plant is not brackish by local farming standards. From the Buena Vista Water Storage District supplied reports that I have seen, the water that is to be used is almost entirely under the 5 dS/m threshold needed to irrigate a fully productive pistachio orchard. These numbers come from peer reviewed studies performed by the University of California. Even if this water was actually brackish, it has not been quantified. We do not know if there is enough "Brackish" water for the life of the project. What we do know, is that this project will increase the use of water in our area causing an unnecessary burden on our already depleting ground water supplies.

What will happen if the users of the CO<sub>2</sub> decide not to or are unable to use it for some reason? A list of possible reasons include: depletion of the oil as a resource in the nearby fields, lower oil prices that cause production shut downs, natural disasters, and miss calculations in the ability to sequester the CO<sub>2</sub>.

Our county already produces more electricity and fossil fuels than it consumes. Most scientists who look at the economic viability of a "green" or "organic" world agree that in order to achieve such goals local production of natural resources is necessary. It is generally agreed that this is achieved by producing a community's necessary inputs within a 90 mile radius. We have achieved this as related to energy production in Kern County. While most communities do not want projects like this in their back yard in Kern County we cannot afford the burden of another project like this on our backs.

HECA has told me and other members of the community they will be borrowing money from Japan to build this project. Why is it that the Japanese government is loaning money to this project that will be



repaid with interest while the U.S. will be granting money that will never be repaid? Our national debt is a huge concern and this project will only add to it.

HECA has told members of our community that they intend to build and then “flip” this project. As soon as they are done building the project, they are going to seek a buyer for it. If HECA truly believes in the viability of this project they should stand by it and see it through its productive lifespan. The community that has been here in many cases for four or more generations will be dealing with the consequences of this project for its indefinite future.

HECA has told me and other members of the community that they were approached by the U.S. Department of Energy and asked to use the \$400,000,000 previously proposed for use by B.P. and Rio Tinto; who abandoned the project over profitability concerns. They said that this money could be accurately characterized as “use it or lose it money.” Taking into account the above mentioned concerns, this is an egregious example of government spending of tax payer dollars gone bad. In the wake of Solendra and other botched “green energy” ventures, I do not think that the U.S. Department of Energy needs another black-eye from a project like this.

Thank you for considering these concerns

Beau Antongiovanni

**Please answer the following direct and implied questions from Mr. Antongiovanni:**

- (1) Is CO<sub>2</sub> considered an air pollutant by HECA? Why does HECA call their project “clean energy”?
- (2) Does the type of air pollution (NO<sub>x</sub>, particulates, etc) that HECA will emit lead to lowered crop production in the San Joaquin Valley?
- (3) Please detail where all of HECA’s emission reduction credits are from and what year they were produced.
- (4) What security will HECA provide for the storage and shipping of ammonium nitrate?
- (5) Please compare the brackishness of the water HECA will pump to the brackishness of water suitable for growing pistachios. It would be appropriate to use information on this from local studies done by the UC extension agents in the valley who have studied this exact topic.
- (6) What happens if Occidental is unable, for any reason, to purchase or use all of the CO<sub>2</sub> that HECA “captures”?
- (7) How does this project provide Kern County with needed electricity?
- (8) Will foreign investors likely put money into this HECA project that will have to be paid by consumers in the USA? How does that aspect of the project lead to increased national security?
- (9) Is the HECA project site in a flood zone? What will happen if the area floods while the project is in operation? What considerations have been made for a potential failure of the Lake Isabella dam or a 100 year storm where Isabella Dam must overflow and all water percolation ponds are full?
- (10) Considering the farmland that is being removed by the HECA site and the farmland that will no longer have water due to the pumping of groundwater by



HECA, what is the loss in farm production and related economic activity by replacing this farming with HECA over the life of the project?

- (11) Are the current owners of the HECA project intending to sell the project as soon as the CEC approves the project? Alternatively, are the current owners going to build the project and then sell it? Or, will the current owners build and operate the project?

## Data Request #28

>>> "Bonnie Kempner" <[bhkartist@aol.com](mailto:bhkartist@aol.com)> 7/26/2012 2:11 AM >>>

I have lived in Bakersfield for 20 years. Over time I have lost 3 of my best friends to lung problems caused by the poor air here. My best friends were dogs.

I was driving by the dairy cows the other day, and wondered how does our already bad air affect things like the milk we drink from them. And this plant will WILL, make things worse!

This project is a no win situation for everyone. There will be ramifications no law suit will be able to fix, and no comfort to those who suffer from the outcome of future unknowns.

Bonnie Kempner  
2705 McKaye Ct  
Bakersfield, CA 93311  
661 703 8331  
[BHKartist@aol.com](mailto:BHKartist@aol.com)

California Energy Commi
<b>DOCKETE</b>
<b>08-AFC-8A</b>
TN # 66388
JUL 30 2012

To:  
U.S. Department of Energy

Sent from my iPad

**Please answer the following questions implied by these statements from Ms. Kempner:**

- (1) Are animals like dogs and cows affected by poor air quality?
- (2) Will milk production go down if our air is made even worse by projects like HECA?

## Data Request #29

**DOCKETED  
08-AFC-8A**

TN # 66382

JUL 30 2012

To Doe Fred Pozzuto  
[Fred.pozzuto@netl.doe.gov](mailto:Fred.pozzuto@netl.doe.gov)

Comments on SCS Energy's HECA project in Tupman, CA  
From land owners near the proposed project

Docket 08-AFC-8A

July 26, 2012

**Brackish Water** What is HECA's definition of brackish water? Let's see figures. At what point is brackish water no longer brackish and is now better water? If the water is no longer brackish, will HECA have to STOP draining our precious ground water? At a thirsty 4600 to 5150 gal/minute for 20 or 30 years, will our ground water suffer? What studies are being done to predict how underground water will move to fill the void from the brackish pumping? What are the safe guards to compensate well owners whose water declines in quality and/or depth? What studies are being done to identify how blending of water can improve it to a point that it is useable? Are studies being done to show which crops can be productive on saltier water? If it is usable for crops, should HECA be allowed to use it for industrial purposes? Show your figures on what level the water must be before no local crops can use it.

**Contaminated Ground water.** What if the unforeseen happens...a problem with their pipes, an unknown fault, a spill, and explosion or accident? Will our ground water be contaminated? Is it possible to correct contaminated groundwater? Wells supply homes very near HECA. What is the protection?

**Onsite wells.** What is HECA doing with the water wells that are within their 1000 acres? Will they cap them off and seal them so no chemical spills or accidents can leak through them to our ground water? What is your knowledge of their abandoned domestic or irrigation wells and how they were capped? Old wells could be unrecorded.

**Risk to Prime Farm Land.** Justify the reason to risk our livelihoods with a sequestration plan on a scale that has never been conducted in the US before? The CEC states in their July 12, 2012 Issues Identification that they do "not have the necessary technical expertise in house to develop and implement this program and will largely rely on consultants" to do the job. That is scary. What is the procedure for selecting and monitoring the consultants? Who would they be?? Justify the risk we must endure at the hands of consultants who would be developing a program ... maybe to refine it after they see the errors they made at this first attempt?

**Williamson Act.** This land is under contract. Where is the justification for cancelling this contract for a chemical plant or even a power plant? Where is the offset for the replacement of prime farm land? And where will you find replacement prime land

4. Public Health (Polluted air causes major health problems. The addition of HECA's pollutants will further compromise our health. )
5. Worker Safety and Fire Protection (No way could Buttonwillow's fire department handle an explosion or fire. Is HECA planning worker safety training for farm workers with emergency evacuation training and procedure?)
6. Efficiency and Reliability: (Isn't this a demonstration project?? A test? On this scale does anyone know how reliable it will be? Do you already know the efficiency? Please determine how expensive it is to make their power, chemicals, and fertilizer. Could HECA be profitable without government help? )
7. Alternatives (How about NO coal gasification as an alternative, or change to natural gas?)

The point...The CEC is an expert in ENERGY. But they may be out of touch with our local issues. If they have missed what is obvious to those with boots on the ground, could they miss issues in the technical areas we don't understand? The Kern County Planning Dept. has extensive experience in oil related issues, farming issues, water, hazardous waste, and chemicals. Shouldn't Kern County be permitting the land use, zoning, chemical plant, and all that is not the ENERGY portion of this process?

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Conclusion: Don't invest the DOE's money in this location. Certainly there is a suitable site to "test" and perfect their ideas, closer to the coal source.

Chris and John Romanini  
12107 Hurst Park Dr  
Bakersfield, CA 93311

Joe Kosaref  
Buttonwillow, CA 93206

Brian Romanini  
bromanini@bak.rr.com

Larry Antongiovanni  
Buttonwillow, CA 93206

Mark Romanini  
markromanini@gmail.com

Mark Lambooy

Brad Bittleston  
Buttonwillow, CA 93206

LaRee Snow  
Bakersfield, CA 93314

Wendell Heck  
Buttonwillow, CA 93206

Beau Antongiovanni

Aldo Antongiovanni  
Buttonwillow, CA 93206

Justin Bone  
Buttonwillow, 93206

**Please answer the following questions put forth by the thirteen people who have signed this letter:**

- (1) What is the HECA definition of brackish water as they use the term?
- (2) What mitigation does HECA propose for the taking of groundwater that is already being used by local agriculture?
- (3) Have old and abandoned wells been looked for on the HECA site? Have any old wells been found?

- (4) Which chemicals, elements, or substances that will be found at the HECA project site are considered potential ground water contaminants in the worst possible case of these things getting into the local ground water?
- (5) Where has a project of this scale been done before where there is a situation of critical agricultural ground water above the injected CO<sub>2</sub> such as exists in Kern County and near the Elk Hills? How experimental is this project in the sense of technology and operations that have never been tried before at this large of a scale?
- (6) What will offset the loss of prime farmland forced by this project? How can cancellation of the Williamson Act be justified by either a power plant or a chemical plant?
- (7) What fire department will respond to an explosion or fire at the HECA facility? What kind of training will local fire fighters receive before HECA begins operations?
- (8) Would HECA be profitable without government help? Is the cost of the fertilizer to be produced by HECA less than the current cost of imported fertilizer such as UAN32 or anhydrous ammonia?
- (9) Why is using natural gas as the only fuel not considered as an alternative?
- (10) Why is using land south of the aqueduct not considered as an alternative?
- (11) Does the CEC understand local farming issues well enough to judge this project objectively? Why should Kern County not be permitting the fertilizer/chemical plant?

**Data Request #30**

**DOCKETED**  
**08-AFC-8A**

TN # 66386

JUL 30 2012

To whom it may concern:

We are concerned individuals about living very close to the new coal plant. The things that we are concerned about are:

1. Excessive traffic – Additional 300+ trucks daily 24 hours a day.
2. Excessive noise – From the additional 300+ trucks driving by our house everyday.
3. Air pollution – We are the worst in the nation for air pollution. We don't need to build more air polluting plants.
4. Water usage – Usage of our ground water and causing our water table to lower.
5. Road damage – Who's going to be responsible for repairing the roads from all the heavy traffic caused by the 300+ trucks driving on the road 24 hours a day.

Our home is set on the north side of Stockdale Hwy. just west of Dairy Road. We already have to deal with the noise from road traffic going to and from the nearby oilfields, Monday thru Friday between 6:00 a.m. and 5:00 p.m. If the plant is built, and 300+ trucks a day are hauling material to and from the plant, this will change our way of life drastically.

We have lived here for over 50 years. We moved to the country because it was quiet. We thought it would be a great place to raise our family. Not with a coal plant being built nearby!!

We also have drilled our own water well. The new plant will also be pulling from the same water table. If this causes the water table to lower too much, we may have to re-drill our water well deeper. Who's gonna pay for that? We sure can't afford it!

We do not need more traffic to drive in front of our house. We don't need some plant to pull more water out of our water table. So we vote NO! NO on any type of processing plant near our home!

Richard and Jan Wolfe  
36400 Stockdale Hwy.  
Buttonwillow, CA 93206  
661-332-0778  
rjhomerpr@gmail.com

**Please answer the following questions stated and implied by Mr. and Ms. Wolfe:**

- (1) Will the 300 trucks run 24 hours per day on the local country roads around the site?
- (2) How will the noise from 300 trucks per day affect local residents and their quality of life?
- (3) Will the water table lower in any area within 15 miles of the HECA project because of the groundwater pumping? Will HECA compensate local well owners if their groundwater is affected in any way by the project?
- (4) The trucks will damage local roads in their present condition and structure? Will the roads be rebuilt at HECA expense to a higher quality to withstand all of this additional traffic?

**Data Request #31**



**DOCKETED**  
**08-AFC-8A**

TN # 66389

JUL 30 2012

**From:** Trudy Douglass [<mailto:trudydouglass@att.net>]  
**Sent:** Thursday, July 26, 2012 9:23 PM  
**To:** [fred.pozzuto@netl.doe.gov](mailto:fred.pozzuto@netl.doe.gov); [loreleio@co.kern.ca.us](mailto:loreleio@co.kern.ca.us)  
**Cc:** Worl, Robert@Energy; Energy - Public Adviser's Office  
**Subject:** HECA concerns July 27, 2012

Here are my concerns in regards to the proposed Hydrogen Energy California (HECA) project, please take them into consideration when you are making your decision:

At the July 12 meeting, Bakersfield's Mayor Hall spoke with pride of the generous "gifts" and promises that SCS Energy has judiciously sown in our area. This largess has caused people in Sacramento and Kern County to put short-term, short-sighted gain ahead of the long-term dangers of coal gasification in the San Joaquin Valley. Is bribery to be an acceptable step in the permit process?

SCS Energy has been trying to permit PurGen One, a chemical/energy/ sequestration coal gasification factory in New Jersey. The SCS proposal in New Jersey is in an industrial area, a Dupont chemical factory designated as a toxic waste site. This property is on the Atlantic Coast so it has ocean breezes that could dispel the pollution and particulates created by the gasification process. Their CO2 was to be sequestered in a thick and solid sandstone formation off the Atlantic Coast. New Jersey has had the wisdom to say "NO" to this project.

Our SCS Energy site is on and surrounded by prime farm land. It sits at the closed end of the San Joaquin Valley; there is no outlet for the 520 tons of pollutants a year the factory will manufacture. This valley is world renowned for the quality, quantity, and diversity of its agricultural products. 30 years of this level of pollution and particulates may kill this valley. The CO2 to be "sequestered" is going into oil shale and the sandstone barrier expected to "hold" it has been drilled for oil exploration for more than 100 years. If these aren't reasons enough for not permitting this disaster, the site is within miles of the San Andreas Fault. An earthquake would put all the pipes and tanks in great danger. It is also on the floodplain of the Kern River. Water from our crumbling Isabella Dam would cover the site if we were to get an earthquake and/or dam failure. Last, the site backs up to the California Aqueduct, can you take a chance on endangering Southern California's water supply?

The defined purpose of sequestration is the permanent removal of greenhouse gases. SCS's proposal gives millions of tons of CO2 to Occidental Petroleum to use without restrictions. This proposal does not meet DOE guidelines for the permanent removal of greenhouse gases. You must say "no" to it.

The Southern San Joaquin Valley is a desert. Our average rain fall is 6.49 inches, last year we got 4.49 inches of rain. It is projected that the HECA factory will consume 75 gallons of fresh water per minute, 108,000 gallons a day for workers. And an additional 4,600 to 5,100 gallons of water per minute or 6.6 million gallons of a day for manufacturing chemicals. Our water resources cannot sustain 30 years of such an enormous demand without dire consequences to our farms and orchards and towns.

Our roads carry school buses and slow farm machinery. Animals, large and small, also move across them. Our valley can have dense Tule-fog in the winter with 0 visibility. The HECA project will put 350 trucks and 200 employees on the road everyday, in and out of this factory. That equals 1100 vehicles a day. (The pollution from these sources are not included with the other pollution totals.) The existing roads will quickly be broken and demolished by such a huge volume of heavy loads. HECA should pay for building new roads to the most rigorous specifications possible.



Building this facility in Kern County goes beyond foolish to criminal. If the Energy Commission feels that California desperately needs a new resource for electricity, they should permit SCS for a natural gas facility. As the HECA project stands now, it is a chemical factory during most of its operating time. Let the County of Kern decide its fate and let them put the facility in an area already zoned for the manufacture of hazardous materials. **Please act at least as wisely as New Jersey. They said “no” to endangering the Atlantic Ocean. You can say “NO” to endangering the San Joaquin Valley.**

Trudy Douglass, 5408 Inverrary Ct., Bakersfield, CA, 93309

I agree with these concerns:

Trinity Hicks, 2137 Sacramento St., Bakersfield CA, 93305

Andrew & Elizabeth Watts, 2949 Crest Dr., Bakersfield, CA, 93306

Thomas C. Douglass, 2846 Summit Cir, Bakersfield, CA, 93306

Joan Douglass, 2846 Summit Cir, Bakersfield, CA, 93306

Cindy Stiles, 8800 St. Cloud Lane, Bakersfield, CA, 93311

Marjorie Bill, 3419 La Cresta Dr. Bakersfield, CA, 93306

Marguerite Adams, 2459 Spruce Ave., Bakersfield, CA, 93301

Claire Frisch, 7401-26 Hilton Head, Bakersfield, CA, 93309

Dr. Gary Knerr, 6504 Mt. Hood, Bakersfield, CA, 93309

Verna Jackson, 525 G St, Bakersfield, CA, 93304

Mary Moss, 525 G St, Bakersfield, CA, 93304

Dr. Thomas P. & Mary Middleton, 9508 Meadow Leaf Ct., Bakersfield, CA, 93311

**Please answer the questions posed directly and indirectly by this letter signed by 15 residents of Kern County:**

- (1) What gifts or donations has HECA made so far to the residents or other entities of Kern County?
- (2) Is there any possible danger, however small, to the water in the California Aqueduct or to the aqueduct itself from the HECA project?
- (3) What restrictions, if any, will be placed on Occidental's use of the CO2 delivered by HECA?
- (4) What is the impact of removing the projected volume of pumped water from agricultural water tables for the next 30 years if the area receives less than normal rainfall and snow melt runoff for most of that time?
- (5) Will HECA pay for building of new roads in the area to the highest standards possible?
- (6) Does Kern County or even the State of California need the electricity from this project? Does the project come close to meeting the GHG emission goals from power production in 2050?

- (7) Is it a criminal act to knowingly endanger the health and quality of life for an area like Buttonwillow or Kern County?
- (8) Where in Kern County is there currently zoning for a chemical plant of the type proposed for HECA?

**Data Request #32**



**HECA Project -  
Public Scoping Meeting for EIS**

**PUBLIC SCOPING MEETING COMMENT FORM**

Must be received on or before July 27, 2012  
(Please print clearly)

California Energy Commission

**DOCKETED  
08-AFC-8A**

TN # 66501  
AUG 06 2012

I am afraid to work near HECA  
Bad air  
Bad chemicals

miniel Ramis Ramis  
Y. Ramis Ramis  
David Fuentes Fuentes  
Samir Sandoval Sandoval  
Paul Lopez Lopez  
Marti Rocha Rocha  
Pedro Ramis Ramis

Name: Albino Cervantes Cervantes  
Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_  
Zip: \_\_\_\_\_  
Phone: ( ) \_\_\_\_\_  
Email: \_\_\_\_\_

**Please answer the implied questions below in this letter from 8 people who work in the area of this HECA proposal:**

- (1) Will HECA produce any chemicals or toxic substances that could be considered dangerous if nearby workers were exposed to them?

- (2) Will HECA potentially make the air in the area surrounding the site worse than it is currently?
- (3) Should people be afraid to work day after day for years in fields across the street from the HECA site once it is operating?

### Data Request #33

DOCKETED  
08-AFC-8A

TN # 66497

AUG 03 2012

Mr. Pozzuto,

As a life-long resident of Kern County, I am strongly opposed to the proposed HECA project that is to be built in southwest Kern County. I believe the promise of jobs for our county has blinded the local officials to the negative impact this factory will have: more-brackish ground water to irrigate our crops (this will negatively impact crop yield); deteriorating air quality in a locale that is often the worst in the nation; more truck traffic on narrow country roads; airborne mercury that will drift over cultivated farm land and nearby schools; as well as the inefficient transportation of an undesirable, dirty fuel (coal) to an area rich in clean natural gas. These things *will* happen and that is enough for me. But other things *may* happen: sequestering large volumes of CO2 may very well stimulate seismic activity and this plant is very near to the San Andreas Fault as well as the California Aqueduct, the water lifeline for much of Southern California.

I believe the the investors/owners of the HECA plant have done their utmost to under-inform and misinform the residents of Kern County what is at stake in this project. I urge you and the Department of Energy to kill this initiative or at least extend the comment period with a requirement that additional information meetings be held in Bakersfield, California where the overwhelming proportion of people who will be affected by the HECA plant can listen and speak out. Thank you very much.

[REDACTED]

[REDACTED]

**Please answer the following questions implied by this letter from an unknown resident of Kern County:**

- (1) Is the promise of jobs and tax money blinding officials in Kern County like supporters of the project, such as Supervisor Ray Watson and Mayor Harvey Hall and Michael Turnipseed, to the negative effects of this project? Which negative effects from HECA are they saying are worth the added economic activity?
- (2) Will any mercury in any amount and at any time drift over nearby farmland or towards local schools while this project is operating?
- (3) In what ways have HECA officials and staff misinformed and under-informed the public?

### Data Request #34



California Energy Commission

**DOCKETED**  
**08-AFC-8A**

TN # 66498

AUG 03 2012

**HECA Project –  
Public Scoping Meeting for EIS**

**PUBLIC SCOPING MEETING COMMENT FORM**

Must be received on or before July 27, 2012  
(Please print clearly)

No infrastructure in place out here for this. Why not in  
Bakersfield at old PG&E plant where labor force is.  
Air Pollution, why can't they burn natural gas instead of  
a coal. Water define blackish water and is it going  
to be long term. What impact is this going to  
have on water table. Who or what is going  
to control how much water plant uses?  
Really does it matter what anyone in  
this area says? It is not wanted at  
this location.

Name:

Debbie  
~~Debbie~~ Shepherd

Mailing Address:

[REDACTED]

**Please address these questions from Ms. Shepherd:**

- (1) How is farmland in a remote area far from major roads suitable for a project like HECA?
- (2) Can HECA use more water than it is currently proposing? What steps would it have to go through to start using more water?
- (3) Does the CEC really have to listen to the concerns of local residents who are neither intervenors nor public officials? What evidence is there that the CEC listens to these concerns?

**Data Request #35**



*08 AFC 08A*

*HECA Project --  
Public Scoping Meeting for EIS*

PUBLIC SCOPING MEETING COMMENT FORM

Must be received on or before July 27, 2012  
(Please print clearly)

California Energy Commission

**DOCKETED**  
**08-AFC-8A**

TN # 66496

AUG 03 2012

*I live right down the road from HECA. I'm  
afraid for my air, water, traffic. And those  
TALL smoke stacks are terrible.*

Name:

Mailing Address:

*Kindell Hech*

**Please answer these implied questions from local resident Mr. Hech:**

- (1) How will the tall smoke stacks impact the view and ambience of this farming area?
- (2) If someone is afraid that a project is impacting their air and water and they know the traffic will impact their daily lives, what can you tell them to ease their concerns?

**Data Request #36**

**DOCKETED**  
**08-AFC-8A**

TN # 66503

AUG 06 2012

To DOE

7-19-12

I've lived in Turman 40 years  
My children, grandchildren, &  
great grand children live here, too  
I am afraid of the gases,  
chemicals, ammonia, and toxics  
associated with HECA.

They will be lethal for  
my family and for everyone  
living around it. Our  
lives are at risk if there is  
an accident.

Please don't permit HECA

Linda Wilson

Linda Wilson  
402 Grace

**Please answer these implied questions from Ms. Wilson, a local resident:**

- (1) If there was a slight chance that either gases like CO<sub>2</sub>, or chemicals like mercury, ammonia, and other toxics, were in an area and might someday escape that area, is a person living nearby justified in being afraid or is there really no danger at all from these things?
- (2) If there is an accident where some of these things mentioned above do escape, is there the potential they might kill someone like a small child?

**Data Request # 37**




**DOCKETED**  
**08-AFC-8A**TN # 66500  
AUG 06 2012

7-19-12


I live in Bakersfield.  
and I'm very afraid of  
that plant in Tupman - HECA.  
Most of my people live there  
and they tell me it is  
deadly.

Please don't permit it.

Maggie Mincher



maggie mincher



**Please answer this question for Ms. Mincher:**

- (1) How do you assure her that despite the presence of many dangerous and deadly chemicals and substances at the HECA project and in the trucks traveling to and from the project, that her relatives in Tupman are totally safe and have nothing to worry about?

**Data Request #38**



**From:** Richard O'Reilly [<mailto:rreilly@gmail.com>]  
**Sent:** Thursday, July 26, 2012 8:56 PM  
**To:** [blwillow@netzero.com](mailto:blwillow@netzero.com); Worl, Robert@Energy; Jennings, Jennifer@Energy  
**Subject:** Re: California Energy Commission Committee site Visit and Informal Hearing

Please Docket and post my comments to the public comment board for the HECA project.  
Regards Richard O'Reilly

On Mon, Jul 16, 2012 at 6:21 PM, Richard O'Reilly <[rreilly@gmail.com](mailto:rreilly@gmail.com)> wrote:

----- Forwarded message -----

**From:** Richard O'Reilly <[rreilly@gmail.com](mailto:rreilly@gmail.com)>  
**Date:** Mon, Jul 16, 2012 at 6:18 PM  
**Subject:** California Energy Commission Committee site Visit and Informal Hearing  
**To:** [Robert.worl@energy.ca.gov](mailto:Robert.worl@energy.ca.gov)

To Robert Worl.

My name is Richard O'Reilly. I attended the July 12 2012 public informal meeting of SCS Energy's newest quest they are calling Hydrogen Energy California ( HECA). I have to admit I was surprised how rude and unprofessional the committee was towards the public during there open forum to express their concerns over this project. All those who attended the hearing paid full attention to HECAs , Calif Energy Commission and even the Federal Dept. of Energy presentations, questions and any information they needed for their agenda. However, when it came to the public to speak in a planed set open forum, the Calif. Energy Commission set down a time limit, cut off speakers, and even so much as abruptly interrupted folks while making strong points in their obvious researched material they wanted to present to the energy committee. To say the least, I was taken a back how rude this came across to the general public. I hope in future meetings , they make it clear from the beginning if they are going to have an open forum, the committee should by all means be prepared to pay full attention to everything the concerned people have to present . This in my opinion is only fair to the public, since the California Energy Commission depends on the public. Regards, Richard O'Reilly

**Please answer this message from Mr. O'Reilly:**

- (1) The CEC was very rude to the public at the July 12 meeting in Tupman and did not allow the public to fully express their concerns and ask all of their questions. Does HECA agree with this assessment? What does HECA propose as a remedy for this incident?

**Data Request #39**

**From:** mark romanini [mailto:markromanini@gmail.com]  
**Sent:** Wednesday, August 15, 2012 3:15 PM  
**To:** Jennings, Jennifer@Energy  
**Subject:** HECA Comments

Dear Mr. Pozzuto

Thank you for the opportunity to voice our concerns regarding the proposed HECA plant.

As we know, the San Joaquin Valley's bowl shaped topography and consistently stagnant weather patterns exacerbate the formation and retention levels of air pollution, primarily in the form of ozone and PM2.5. The prevailing air patterns shove these pollutants to the southern end of the valley making Bakersfield the most challenging city in the country to reduce these toxins within. As new studies and research continue confirming the negative health impacts from these pollutants, the EPA has proposed making the National Ambient Air Quality Standards for ozone and PM2.5 even more stringent.

The San Joaquin Valley Air Pollution Control District documented in its 2011 annual report that: Bakersfield exceeded the 8 hour ozone standard 69 times and the PM2.5 standard 28 times for a total of 97 unhealthy air days or essentially 25% of the entire year. Under the EPA's newly proposed guidelines, these numbers would have been 94 and 61 respectively for a total of 155 unhealthy air days or 42% of the entire year.

The primary toxic pollutant responsible for the ozone and PM2.5 deterioration levels in the valley is NOx and the primary source creation is from vehicle emissions. HECA's proposed project and site location will contribute substantially more NOx in an area that can't handle today's levels. The DOE's financial support of this "green" technology seems to overlook the true footprint of this project. Sequestering 3 million tons of greenhouse gas emissions in an area that has the worst concentration of ozone and PM2.5 in the entire country seems like a blatant disregard of the true air quality conditions the citizens of Kern County struggle with daily.

This project not only sits upon prime farmland but is also surrounded by it. It also will consume over 7,000 acre feet of brackish water a year that could be used to grow salt tolerant crops such as pistachios or cleaned up and provide water to over 17,000 households (one acre foot of water will provide enough water for 2-3 families for an entire year).

Why not employ the best available technology that maximizes the strength of an area and minimizes its negative impacts? Adding hundreds of tons of toxic pollutants into our compromised air basin doesn't accomplish that goal nor does losing prime farmland and the most precious resource in the state today, water. Marginal land and abundant sunshine are attributes of the county that are underutilized today. Where is the consideration for solar to meet California's energy goals and needs? It appears to be a much better fit.

How many trucks will be arriving and departing from this facility daily at full operation?

Please show the total tons of emissions the plant will generate at full operation.

Please show from the point of origination, total truck and rail emissions during full operation.

All of these seem to be ambiguous and moving numbers.

Finally, who is the neutral oversight party in regards to emissions and what enforcement powers will they possess?

Thank you again for your consideration of our concerns.

Sincerely,

Mark Romanini

### **Please answer the following questions for Mr. Romanini:**

- (1) If air quality standards are tightened further as proposed by the EPA and many health scientists, how could HECA be justified in such a polluted place as the southern end of the San Joaquin Valley?
- (2) Is it fair to do a GHG reduction project at the expense of making the air quality worse in what is already the most polluted place in the nation?
- (3) Is the loss of farmland and usable irrigation water a responsible action given the lack of food and usable water in the world?
- (4) Please answer the four questions asked by Mr. Romanini at the end of his letter.

### **Data Request #40**

Below is an earlier data request by AIR and the answer supplied by HECA.

## DATA REQUEST

7. *HECA needs to quantify all potential CO<sub>2</sub> emissions related to this project. Maximum possible leakage of the CO<sub>2</sub> which comes back to the surface with the enhanced oil recovery operations has not been quantified to our knowledge. That CO<sub>2</sub> must be added to the total for the power plant to see if California's emission performance standard is being met. The CO<sub>2</sub> or equivalent emissions from the massive fuel transportation, water pumping, waste removal, CO<sub>2</sub> injection operations, recapture of CO<sub>2</sub> operations, and product transportation related to this project must be quantified and totaled. Since N<sub>2</sub>O is 310 times the value of CO<sub>2</sub> in terms of GHG emissions, what are the N<sub>2</sub>O emissions associated with the manufacture of the fertilizer products and with the packaging and transportation of the fertilizer products? This too must be quantified. It would also help the public to understand this project if the N<sub>2</sub>O from agricultural use of the fertilizer products were quantified and the CO<sub>2</sub> from burning the oil recovered by this CO<sub>2</sub> injection were quantified. Since it has been stated that the oil is not recoverable by any other means then it is important to know how much oil will most likely be recovered because of this project. If oil is recovered which would not otherwise be recovered because of HECA (and similar projects if HECA is successful), how will this affect the relative price of oil vs renewable energy? Will the effect be negative or positive on the effect of pricing for renewable energy?*

## RESPONSE

Potential GHG emissions associated with all aspects of the HECA Project have been calculated, and were presented in the Application for Certification (AFC) Amendment (URS, 2012). Emissions related to construction (AFC Amendment Table 5.1-10), operation (AFC Amendment Table 5.1-22), and transportation (AFC Amendment Table 5.1-24) were presented in the AFC Amendment, and are included herein as Table 7-1, Table 7-2, and Table 7-3, respectively. Methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and sulfur hexafluoride (SF<sub>6</sub>) are included in the total carbon dioxide equivalent (CO<sub>2</sub>e) emissions, and have been multiplied by their respective global warming potentials.

GHG emissions from the Enhanced Oil Recovery (EOR) activities of the OEHI Project in the Elk Hills Oil Field (EHOF) have been calculated and presented by OEHI in the 2012 Supplemental Environmental Information (SEI) document, which was included in Appendix A of the HECA AFC Amendment (URS, 2012). These emissions are part of the OEHI Project, which is separate and distinct from the power generation associated with the HECA Project, and thus not included for purposes of determining compliance with the Emission Performance Standard (EPS) with which HECA must comply. A summary of these emissions is presented in Table 7-4.

AIR has a follow-up question: So HECA could give the captured CO<sub>2</sub> to me and I could release it into the air and it would not affect the calculation for the Emission Performance Standard?

## Data Request # 41



**Here is another earlier data request from AIR together with the HECA response:**

**DATA REQUEST**

10. *Since the Avenal project agrees to use turbine air cooling instead of massive amounts of water, why is that not the best alternative for HECA given that water is always short in the valley and the water proposed for HECA is only relatively contaminated on the brackish side compared to other groundwater in the region and compared to the billions of gallons of produced water available in the nearby oil fields?*

**RESPONSE**

The Applicant evaluated the suitability of air cooling for heat rejection. The project uses heat integration and/or air cooling to reduce process stream temperatures down to 140 degrees Fahrenheit where it is effective to do so. Extensive process heat integration has been incorporated into the plant design to conserve water. Air cooling was not selected for the steam turbine surface condenser because it results in a substantial increase in parasitic electrical demand and a dramatic decrease in power output. These effects result in a markedly negative impact on the cost and availability of electricity.

Furthermore, Buena Vista Water Storage District (BVWSD) considers the use of its brackish water as a beneficial part of BVWSD's Brackish Groundwater Remediation Project. As such, BVWSD has encouraged the Project to use the brackish water.

Although produced water is available from the oilfields within 10 miles of the Project Site, and the producers of these waters indicated they were willing to provide this water to the Project, they are reluctant to guarantee specific quantities of future water supply. The business purpose of these organizations is oil production, and not water production, and they are unwilling to complicate the former for the sake of the latter. Commercial discussions determined that a reliable supply of produced water with respect to quantity and quality is not readily available.

**Here is a follow-up question from AIR:**

This is a different excuse than what was provided earlier when the applicant said the produced water was too brackish. Why will this produced water not be used first (as available) and well water used as a backup?

Data Request #42

Another earlier data request by AIR with response from HECA:

8. *AIR wishes to see a comparison of burning hydrogen as a fuel in this project with burning natural gas in terms of the amount of NO<sub>x</sub> emitted by the power plant. A comparison should be made with a modern natural gas plant such as the Avenal power plant recently approved by the CEC and also in the San Joaquin Valley. What are the respective rates of NO<sub>x</sub> emissions per unit of electricity produced for the two projects?*

#### RESPONSE

A comparison of emissions per unit of electricity produced from the natural-gas-fired Avenal power plant to the HECA Project is provided below in Table 8-1. NO<sub>x</sub> emissions, as well as emissions of volatile organic compounds (VOC) and particulate matter (PM), are lower on a per-megawatt-hour basis from the HECA Project turbine than from the natural-gas-fired Avenal power plant turbines.

The turbines were analyzed because this is the only way to compare, on equal footing, emissions related to electricity production from the two inherently different projects. Facility-wide emissions are not comparable, because the HECA Project includes a manufacturing complex, to create a saleable product in addition to electricity.

**Table 8-1  
Turbine Emission Comparison  
Annual Basis**

	<b>Avenal<sup>1,2</sup></b>	<b>HECA<sup>3</sup></b>
Gross Megawatt-hours (MW-hr)	3,393,600	3,382,776
NO <sub>x</sub> emissions (tpy)	144.0	127.2
NO <sub>x</sub> emissions per MW-hr (lb/MW-hr)	0.085	0.075
VOC emissions (tpy)	34.5	17.7
VOC emissions per MW-hr (lb/MW-hr)	0.020	0.010
PM <sub>10</sub> /PM <sub>2.5</sub> emissions (tpy)	80.7	60.2
PM <sub>10</sub> /PM <sub>2.5</sub> emissions per MW-hr (lb/MW-hr)	0.048	0.036
<b>Notes:</b> 1. Avenal annual turbine emissions are from the CEC Final Staff Assessment (June 2009) and include startup and shutdown emissions. 2. Avenal gross megawatt-hours are calculated from the power production (MW) with and without duct firing and hours based on the maximum operation scenario #3 from the SJVAPCD Final Determination of Compliance (November 2008). 3. HECA annual emissions include turbine and coal dryer emissions with hydrogen-rich fuel and natural gas including startup and shutdown emissions. NO <sub>x</sub> = oxides of nitrogen PM <sub>10</sub> = particulate matter 10 microns in diameter or less PM <sub>2.5</sub> = particulate matter 2.5 microns in diameter or less tpy = tons per year VOCs = volatile organic compounds		

#### Here is AIR's follow-up question and comments:

The total NO<sub>x</sub> emissions and PM emissions for HECA in the table do not include all such emissions from the project. The intent of the question is to look at all emissions from HECA compared to all emissions from Avenal and prorate these emissions per MW-hr produced. Please do the comparison again with these comments in mind.

#### End of Current Data Requests





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](http://WWW.ENERGY.CA.GOV)

**AMENDED APPLICATION FOR CERTIFICATION FOR THE  
HYDROGEN ENERGY CALIFORNIA PROJECT**

**Docket No. 08-AFC-08A**  
(Revised 10/9/12)

**APPLICANT**

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### DECLARATION OF SERVICE

I, Tom Frantz, declare that on October 24, 2012, I served and filed a copy of the attached document dated October 24, 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/hydrogen\\_energy/index.html](http://www.energy.ca.gov/sitingcases/hydrogen_energy/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:**

- x   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:**

- x   by sending one signed copy, mailed with the U.S. Postal Service with first class postage thereon fully prepaid and e-mailed respectively, to the 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. 08-AFC-8  
1516 Ninth Street, MS-4  
Sacramento, CA 95814-5512  
[docket@energy.state.ca.us](mailto:docket@energy.state.ca.us)

**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  
[mlevy@energy.state.ca.us](mailto:mlevy@energy.state.ca.us)

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.

Original signed by Tom Frantz