From: Trudy Douglass [mailto:trudydouglass@att.net]

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To: fred.pozzuto@netl.doe.gov; loreleio@co.kern.ca.us
Cc: Worl, Robert@Energy; Energy - Public Adviser's Office

Subject: HECA concerns July 27, 2012

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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 sequestrated 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 "sequestrated" 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 <u>permanent</u> 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, 108,000gallons 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.**

If all of HECA's gasification, storage, sequestration, and transfer processes work perfectly they will add "only" 520 tons of pollution and particulates a year to Kern County air. (NOX-270 tons, VOC-92 tons, SO2-31 tons, PM10-96tons, and PM2,5-83tons [not including transportation]) But, nothing works perfectly. This number does not include the millions of tons of CO2 (greenhouse gas) it is supposed to permanently sequester. Standards for the feedstock must be established. Coke and coal are graded on a sliding scale; can we trust the HECA operators to check for quality? There are a many junctures in HECA procedures where toxic waste levels of coke and coal could be added to their feedstock. This would add many more heavy metals to their emissions. This kind of manipulation could save a lot of money for some, make a lot of money for others and add significantly to the pollution levels of our air, land, water and vegetation. An off-site air-monitoring station, at HECA expense, must be setup down-wind from the factory, pollution levels must be established and there must be immediate, preestablished, consequences for violations. Readings must be monitored daily by an outside consultant and the condition of the equipment checked often, all at HECA's expense. Current levels of pollution and toxics in our air, land, water and vegetation, in a 20 mile radius of HECA, should be established, regular tests on pollution levels must be performed for comparison and there must also be pre-established consequences for these violations. This should also be done by outside consultants, at HECA's expense.

SCS Energy is **trying to pull a fast one** by using pollution monitoring numbers from Shafter. It is the closest station to the site and has the lowest readings in our district but, it does not reveal a valid image of our air quality. **The most appropriate baseline for air pollution and particulate measurements in the district comes from the Arvin/Bear Mountain monitoring station at the end of the valley.**

In return for HECA taking our air, land, water and peace of mind, we receive:

Permanent placement in the #1 spot for the worst air in the United States.

A rise in greenhouse gases because of inadequate diligence in the carbon sequestration process.

The real possibility that this chemical factory will leave us with a toxic waste site.

Higher medical costs from pollution based diseases: asthma, emphysema, cancer and heart disease.

Reduced longevity.

Lowered productivity of the people and the land.

Higher fees and fines for our failure to meet EPA particulate standards. We already have \$29 million fine to pay off at an extra \$14 in fees on each vehicle registered. Although HECA will add to our pollution and thereby increase our penalties, they will avoid fines by buying those "magical" Air Credits with our own tax money. This might be legal but is it right?

SCS Energy represents capitalism at its worst, where government and private interests combine to overwhelm the peoples' health and safety. Will the government care more about Occidental Petroleum's and SCS Energy's corporate interests than the health and quality of life of its individual citizens?

Does the California Energy Commission have jurisdiction to permit this facility when it would be operating more as a chemical factory than an energy plant? If this were only an

energy plant, yes. But, it will also be producing millions of tons of dangerous and volatile chemical fertilizers and other unnamed chemical compounds a year. Ammonium nitrate fertilizer is an oxidizing agent in explosives. Anhydrous ammonia fertilizer is very hazardous and must be shipped under high pressure. Its vapors alone cause injury and death; they burn eyes, noses, throats and lungs. Contact with it freeze-dries the skin.

Do you remember Bhopal, India? 3,000 people died immediately from chemical exposure and 5,000 more died lingering deaths. The gasification process will break the coal into deadly gases that will be stored on the site: hydrogen, sulfur, and ammonia to mention a few. HECA must do everything possible to protect those living and working near this chemical factory. Every person in the town of Tupman (2 miles away) and in a ten or more mile radius of this plant should be supplied with hazmat suits and respirators. Every house, classroom, car and workplace should be equipped for the worse case scenario. There should be a hazmat drill 2 times a year at schools and workplaces. The equipment should be maintained by HECA and replaced as recommended by the manufacturers. When gas leaks are detected an automatic warning alarm should be sounded from stations set-up in a 20 or more mile radius of the plant. The alarms should be tested and maintained by HECA on a regular schedule.

If this poisonous monstrosity is allowed to be built, HECA must have an exit procedure for returning the site back to its original condition when they close the plant. \$500,000,000 should be put into a special untouchable account at the start of construction that will grow in interest for 30 years. This will prevent the future HECA operators from declaring bankruptcy and walking away and leaving us with a toxic waste site.

Don't let Kern County to be the world's lab rat! Nobody knows what to say about sequestration safety at this massive a volume. Because it is so new a procedure, there are no rules for it. A lot of people are sitting back to watch what happens to us. An added problem for the Tupman factory is that we aren't even being given a valid form of sequestration. SCS said the CO2 will crystallize but, how long will that take? Will the gas be in the ground long enough for it to happen or just come right up through the perforated sandstone? At the present time, CO2 itself is not a problem in our valley. Most of the CO2 we have is consumed through photosynthesis in our healthy, vital farms and orchards. The density of HECA's 520 tons of pollution and particulates each year for 30 years will make our crops and orchards less able to covert the CO2 to oxygen, will injure our whole eco-system and may be the death of it.(Jane Hall, "Dirty Air Costs California's Economy \$28 Billion Annually")

Why is Kern County being treated like a third-world nation? SCS Energy 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 and hundreds of miles when they can get natural gas from just a few miles away via pipeline? Why aren't we offered this cleaner alternative?

Is SCS Energy trying to pull a fast one again? In looking over the Energy Commission's concerns about SCS's proposal and compliance, there are numerous areas of default. What I see is that SCS Energy and Occidental Petroleum are asking DOE to pay for the feasibility studies of their project. Say "no" to this. Make them come to you for money after they have complied with the CEC's requests for information on: air quality, sequestration, transportation(method and pollution generated), biological and cultural impact, soil, water, hazardous material and waste management.

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 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