

Rob Simpson
27126 Grandview Avenue
Hayward CA. 94542
rob@redwoodrob.com
510-909-1800

DOCKET 07-AFC-6
DATE _____
RECD. <u>OCT 11 2010</u>

STATE OF CALIFORNIA
State Energy Resources
Conservation and Development Commission

In the Matter of:
CARLSBAD ENERGY CENTER PROJECT)

DOCKET NO: 07-AFC-6
ROB SIMPSON'S
POST-EVIDENTIARY
HEARING REPLY BRIEF

The Commission should consider public comments received at the Evidentiary Hearing;

18 "My name is Stacey
19 Quartarone. It's spelled S-t-a-c-e-y, and my last
20 name is spelled Q-u-a-r-t-a-r-o-n-e. we have lost our 16-
24 year-old son, Chase, to non-Hodgkins lymphoma. He
25 had been ill for 14 months. And now, this year,
there have been three other boys in the same age
2 group, 14 and 15 years old, going into their
3 puberty who now have Hodgkins lymphoma.
4 My son just died seven weeks ago and the
5 power plant, I know in my heart and soul, has had
6 a major impact on my family's and every family
7 here in both Carlsbad, Oceanside, Encinitas,
8 Lucadia, Vistal, Ocean Hills, everybody that lives
9 in this area.
10 We live on one of the highest mountains
11 right, you know, the fumes come right up. And we
12 live about two miles away from the power plant
13 above Agua Hedionda Lagoon. Everything in our
14 yard is covered in soot, our tables, our chairs.
15 The fumes are putting out pollution at a high,

16 high level.
17 And if it was your children or you lived
18 in Carlsbad and all the people opposed here, would
19 you allow this power plant to be built if you lost
20 your own child?
21 My son's lymphoma was in his lungs and
22 his chest. And I know he breathed in this air
23 quality from this power plant. All the children
24 of Carlsbad go to Tamarack Beach right in front of
25 the power plant. They played in the sand and they
played in the water. And it was called warm
2 waters because the water was used to cool down the
3 power plant.
4 And now more and more children, and I
5 have statistics, are getting cancer and adults.
6 Our neighborhood, in our just one street, there
7 are over ten incidents of cancer on one street.
8 The next street there are over eight incidents. A
9 doctor who has lung cancer, never smoked, ever.
10 I can name every single cancer, and it
11 is rampant in all of the area we live in north
12 Carlsbad.
13 Our children are being exposed to severe
14 toxins from this power plant and all the people
that live here. I know of at least eight children
16 in north Carlsbad who have died of leukemia,
17 lymphoma and heart disease. And they are within
18 three blocks a radius of our home.
19 The power plant's fumes, toxins,
20 chemicals make their way to our neighborhoods in
21 seconds. The new proposed power plant cannot be
22 built on coastal land where there are over 110,000
23 people just alone in Carlsbad.
24 This plan is insane, and our children
25 are dying and becoming sick. There is a
1 elementary school right by this lagoon near the
2 power plant, Agua Hedionda Lagoon. And there have
3 been over five teachers with cancer at one
4 elementary school right next to Agua Hedionda
5 Lagoon, Kelly Elementary, where my children went.
6 And where one of these other boys also has
7 lymphoma right now, who's going in for stem cell.
8 This lagoon is right next to the power
9 plant. And there's so many people who go to the
10 beaches and go to this lagoon. And we're all
11 being affected.
12 And it's about the environment, it's
13 about our future, it's about our lives and the
14 quality of our lives. And I want you to think,

15 would you have this built where your children
16 live. "

page 328-

http://www.energy.ca.gov/sitingcases/carlsbad/documents/2010-02-01_Evidentiary_Hearing.PDF

Mrs. Quartarone's experience was not an isolated incident. Community member after community member extolled similar stories. The very minimum response from the Commission pursuant § 1212. Rules of Evidence should be to consider the comments and require local monitoring, consistent with the law, prior to considerations of air quality effects. Right now Commission staff and Air District staff do not even agree on which set of, made up, numbers to use for a baseline. One thing that is certain is that the people of Carlsbad are experiencing negative health effects.

After a real, local, baseline is established; the planned impacts could be reduced by Contemporaneous emission reductions, from the shutdown of part of the existing facility. A Public Notice indicating the projects effects on Air Quality, expressed consistent with the National Ambient Air Quality Standards in relationship to the baseline, should be published.

Instead of, workshops that purport to be to "receive public comment", where no record of comments is preserved and hearings where public comment cards include no place for members of the public to include their contact information for response to their comments, Comments should be considered and responded to. If mitigations are appropriate they should be local, current and verifiable.

The localized effects of Greenhouse gases should be considered pursuant The Jacobson Effect, which asserts that emissions of carbon dioxide (CO₂) impact health and life expectancy more negatively where it is emitted (locally) than in other areas

1. Jacobson, Mark. "On the Causal Link Between Carbon Dioxide and Air Pollution Mortality."

Mark Z. Jacobson. Stanford University, 12 Feb. 2008. Web.

<http://www.stanford.edu/group/efmh/jacobson/2007GL031101.pdf>.

2. Jacobson, Mark. "The Enhancement of Local Air Pollution by Urban CO2 Domes." Mark Z. Jacobson. Stanford University, 3 Oct. 2009. Web.

<http://www.stanford.edu/group/efmh/jacobson/CO2loc0709EST.pdf>.

BACT should be determined and required for Greenhouse gases.

Should the applicant wish to add information to the record or modify the project like the [One-hour NO2 National Air Quality Standard Modeling NO2 Analysis](#). Staff should analyze it and it should be subject to § 1212. Rules of Evidence, with an opportunity for discovery and cross examination or it should not become a part of the Hearing Record §1702. Also, agency comments should be requested pursuant;

§ 1714.5. Agency Comments on an Application; Purpose and Scope.

(a) Any agency requested, pursuant to Section 1714 of this article, to submit its comments and recommendations to the commission on any aspect of the application shall be requested to do each of the following:

(1) Update as necessary the information requested or submitted by the agency during the notice proceedings;

The potential Environmental effects of "shale gas" as a fuel source should be considered, consistent with the 2009 IEPR and ERRATA;

"There are also environmental issues associated with the water used in shale gas extraction. The hydraulic fracturing process used to extract natural gas from shale formations uses hundreds of thousands of gallons of water treated with chemicals. In the development of an entire field, the amount of water injected into a shale formation could reach into the hundreds of millions of gallons. The volume of water used in the development of natural gas from shale formations raises other environmental concerns, including the consumption of large water quantities and recovered water disposal. Although field operators retrieve most of the injected water once the hydraulic fracturing is completed, a significant quantity of water and

chemicals remain within the formation"

135 IEPR

"Investigation into the environmental issues raised by natural gas exploration and production is an ongoing effort that will continue to be addressed by Energy Commission staff. Shale gas is only the latest addition to a portfolio of natural gas extraction technologies that the Energy Commission staff monitors. Staff will continue to monitor and report on developments in all forms of natural gas exploration and production.

Another natural gas supply source with potential environmental issues is LNG , which tends to contain higher-Btu-content hydrocarbons that have not been processed out, as is typically done with domestically produced natural gas. This can cause increased particulate emissions and has raised some health and environmental concerns about the use of LNG" 138 IEPR

"The Energy Commission will continue to monitor the potential environmental impacts associated with shale gas extraction, including carbon footprint, volume of water use and risk of groundwater contamination, and potential chemical leakage. Specifically, the Energy Commission staff will coordinate and exchange information with energy agencies in states with shale gas development, such as New York, Texas, and other midcontinent states, and will report new findings in the *Integrated Energy Policy Report* and other Energy Commission forums."

243 IEPR

IEPR ERRATA

"Page 13, second bullet under "Recommendations":

The Energy Commission will continue to monitor the potential environmental impacts associated with shale gas extraction, including carbon footprint, volume of water use and risk of groundwater contamination, air pollution, and potential chemical leakage. Specifically, the Energy Commission staff will coordinate and exchange information with energy agencies in states with shale gas development, such as New York, Texas, and other midcontinent states, and will report new findings in the *Integrated Energy Policy Report* and other Energy Commission forums"

"Page 134, under "Natural Gas and the Environment," first paragraph:

The shift to a greater reliance on horizontal, rather than vertical, wells in shale formations elevates the issue of potential environmental impacts. While regulatory agencies and environmental groups highlighted these issues in the past, in the last 10 years the increased activities in shale formations brought greater focus on the potential environmental impacts, which can occur in any of five areas: surface preparation, drilling and completion, production and cleanup, transmission and distribution, and consumption. As a result, the increased development and production of natural gas in shale formations has raised three four primary environmental concerns: surface disturbance, GHG emissions, other air contamination, and potential leakage of chemicals into the groundwater"

http://www.energy.ca.gov/2009_energypolicy/documents/2009-12-16_business_meeting/CEC-100-2009-003-CTF_Errata.PDF

The reality that the project requires a PSD permit should be acknowledged.

The fact that, according to the EPA, the facility was in violation of its NPDES permit during 11 of the last 12 quarters should be considered prior to increasing the Brine concentration of the projects seawater outfall or other potential water quality effects for the permit which is set to expire on 10/01/2011 .

Carlsbad encina
Statute:Source ID

CWA CA0001350 Major; NPDES Individual Permit Effective 10/01/2011
CWA CA-N00004017 Letter of Violation/ Warning Letter State 06/07/2006
CWA CA-N00003952 Notice of Violation State 06/08/2006

CWA:CA0001350

QTR1

Jul-Sep07 QTR2

Oct-Dec07 QTR3

Jan-Mar08 QTR4

Apr-Jun08 QTR5

Jul-Sep08 QTR6

Oct-Dec08 QTR7

Jan-Mar09 QTR8

Apr-Jun09 QTR9

Jul-Sep09 QTR10

Oct-Dec09 QTR11

Jan-Mar10 QTR12

Apr-Jun10 Non-compliance in Quarter No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes

N-HEXANE 2000, 64,000 pounds

AMMONIA 2004, 100,000 pounds 2005 96,000 pounds 2006, 75,000 pounds 2007

18,000 pounds 2008 63,000 pounds

<http://www.epa-echo.gov/cgi-bin/get1cReport.cgi?tool=echo&IDNumber=0607300033>

EL SEGUNDO GENERATING STATION

The applicants operation of other facilities should be considered; According to the EPA The NPDES permit for the Applicants El Segundo facility expired in 2005. The project was also in violation for 10 out of the last 12 Quarters. An Notice Of Violation of the Clean Air Act was issued on 5/19/2009. On 08/04/2009 the applicant was fined for violation of the Clean Air Act. On 12/09/2008 Case Number: CA-2009-1189 was filed for violation(s) of the Clean Water Act <http://www.epa-echo.gov/cgi-bin/get1cReport.cgi?tool=echo&IDNumber=110000520213>

LONG BEACH GENERATING STATION 4 quarters in non compliance in the last 3 years
2 informal enforcement actions/NOVs in 5 yrs penalty assessed

TITLE V COMPLIANCE CERTIFICATION REVIEW State 08/29/2007 Result=IN VIOLATION

CAA 06037CJ514 STATE NOV ISSUED State 07/22/2008

CAA 06037CJ514 STATE NOV ISSUED State 10/31/2009

CAA 06037CJ514 STATE ADMINISTRATIVE ORDER ISSUED State 10/02/2008 \$5,000

CAA 06037CJ514 STATE ADMINISTRATIVE ORDER ISSUED State 04/14/2010 \$1,000

The Commission should require an adequate study of the effects of the projects air quality effects including Nitrogen Deposition effects on water quality, light, noise and avian impacts in the adjacent "Areas of critical concern" and "Species of special concern"

§ 1702.(6)(q) "Areas of critical concern" means special or unique habitats or biological communities that need protection from potential adverse effects resulting from project development and which may be identified by local, state, or federal agencies with resource responsibility within the project area, or by educational institutions, museums, biological societies, or special interest groups with specific knowledge of resources within the project area. This category includes, but is not limited to, wildlife refuges, wetlands, thermal springs, endangered species habitats, and areas recognized by the California Natural Area Coordinating Council and the Governor's Office of Planning and Research.

§ 1702. "Species of special concern" means candidate rare, threatened, or endangered species that may need protection from potential adverse effects resulting from project development and which may be identified by local, state, or federal agencies with resource responsibility within the project area or by educational institutions, museums, biological societies, and special interest groups with specific knowledge of resources within the project area. In addition to species designated pursuant to state or federal law, this category includes, but is not limited to, those rare and endangered plant species recognized by the Smithsonian Institution or the California Native Plant Society.

While the Commission may not ordinarily consider the need for a facility, if it is to rely on the Avenal "Gas is good" theory then need must be considered. As Associate Member Douglas posed in the Avenal proceeding;

ASSOCIATE MEMBER DOUGLAS:

9 In your view is there a numerical
10 quantitative limit, regardless of whether you can
11 identify it at the moment, to this analysis? For
12 example, if we were to permit a large combined
13 cycle power plant on every street corner in
14 California with the last having the same
15 greenhouse gas benefits as the first, or at some
16 point do you reach the stage of too much, in order
17 to meet our reliability needs and build towards
18 our greenhouse gas goals. 187

http://www.energy.ca.gov/sitingcases/avenal/documents/2009-07-07_Transcript_Prehearing_Conference+Evidentiary_Hearing.PDF

The Commission should also consider how the Avenal effect would hold true if Cap And Trade is adopted. Would licensing more plants raise the Cap? if so is the Avenal determination still true?

CECP does not Comply With All Applicable Air Quality LORS and Will Have Significant Direct or Cumulative Impact

Staff's brief claims that the CECP will employ Best Available Control Technology (i.e., the lowest emitting feasible technology available for the described purpose) but the evidentiary record does not support this claim. The proposed BACT limit for PM-2.5 for the Carlsbad Energy Center of 9 pounds per hour per turbines does not represent the current BACT limit for PM 2.5. For PM-2.5 BACT is 7.5 pounds per hour per turbine as established in the Russell City Energy Center by the BAAQMD.¹ This limit was supported by the Commission Staff and just approved by the Energy Commission on August 11, 2010.²

The project is proposing to use the Siemens SGT6-5000F combustion turbine generators (CTGs). The project is proposing a 1.5 ppm emission limit for VOC's. The Marsh Landing Generating station which also utilizes the SGT6-5000 F turbine has an emission limit of 1ppm

¹ Russell City Energy Center PSD Permit Page 10 Condition 19 (h)
http://www.baaqmd.gov/~media/Files/Engineering/Public%20Notices/2010/15487/PSD%20Permit/B3161_nsr_15487_psd-permit_020410.ashx

² http://www.energy.ca.gov/sitingcases/russellcity_amendment/amendment_two/2010-08-16_Order_Amending_Decision_10-0811-5.pdf Page 7

for VOC's or 2.9 lbs/hr. That limit was established by the BAAQMD in the FDOC for the Marsh landing Facility.³ The limit was supported by Energy Commission Staff and approved on August 31, 2010 by the full Commission.

The fuel sulfur limit of 0.75 grains/100 scf is much higher than recent projects have been permitted. Average fuel sulfur content is about 0.25 grains /100 scf.

Staff's brief further opines that the project will not have a significant effect on the environment but the evidentiary record does not support this finding. First of all there is no demonstration of compliance with the 1 hour NO₂ standard contained in the evidentiary record. Secondly the Staff and air districts proposal to allow a three hour averaging period for NO_x emissions during transient periods would make such a demonstration impossible. A three hour averaging period for NO_x emissions for transient periods is not protective of the Federal 1 hour NO₂ standard. The standard became law on April 12, 2010 and the project must be conditioned to comply with the standard otherwise the project threatens an ambient air quality standard and does not comply with all Air Quality LORS. EPA has issued guidance for modeling the standard on March 10, 2010. The design value for San Diego County is very high according to EPA it is listed at 68 PPM.⁴ EPA is particularly concerned about areas that have heavy vehicle traffic and the project area with I-5 located next to it would require NO₂ monitoring to determine whether this project in conjunction with vehicle traffic and other sources would violate the standard.

The second environmental impact that would be significant is the projects ammonia slip.

Even at the suggested 5ppm ammonia slip level the projects ammonia emissions will be over

³ The District has determined that the Marsh Landing gas turbines will be able to meet a POC emissions limit corresponding to 1 ppmvd @ 15% O₂ averaged over one hour. This is the most stringent BACT permit limit applied to a simple-cycle gas turbine. The simple-cycle gas turbines will be limited to 2.9 lb/hour or 0.00132 lb/MMBtu

in the permit conditions; these values correspond to 1 ppmvd @ 15% O₂.

http://www.energy.ca.gov/sitingcases/marshlanding/documents/other/2010-06-29_BAAQMD_FDOC.pdf Page 39

⁴ US EPA Design Values (Average 1-Hour 99th Percentiles over 3 Years) by County for Nitrogen Dioxide <http://www.epa.gov/air/nitrogenoxides/pdfs/2005-2007NO2levels.pdf>

60 tons. Staff analysis has determined that any additional contribution of the projects emissions to PM 2.5 levels is significant. Staff believes all precursor emissions should be mitigated.

Despite this determination staff has not provided any mitigation for the potential 60 tons of ammonia emissions which can lead to significant PM 2.5 formation. Unreacted ammonia creates secondary PM emissions downwind in the atmosphere where the unreacted ammonia reacts with ambient NOx and SOx compounds produced from other combustion sources such as mobile and stationary sources located in the air basin. Staff's approach to merely limit ammonia slip to 5 ppm does not prevent significant secondary particulate formation from ammonia emissions.

Under CEQA the staff has the "burden of presenting substantial evidence to support" its conclusions that the proposed 60 tons per year of ammonia slip will not contribute significantly to the existing significant cumulative impact of the District's non-attainment status for PM10 and PM2.5 Standard. State law requires that the "substantial evidence" used to support Staff's conclusion "include facts, reasonable assumption predicated upon facts, and expert opinion supported by fact." (CEQA Guidelines, Cal. Code Regs., title 14, § 15384(b)) Staff's supporting facts cannot be based upon speculation or unsubstantiated opinion. (Pub. Res. Code § 21080(e)(2)). Neither Staff nor the applicant has provided any facts or analysis which would quantify the amount of secondary particulate formation from ammonia slip.

Staff's analysis consist of one statement in the FSA," Additionally, there would certainly be some secondary particulate conversion from the ammonia emitted from the CECF project; however, there is currently no regulatory model that can predict the conversion rate."⁵ This does not meet the burden of proof that the projects ammonia emission would not form adverse impacts in the form of secondary particulate.

⁵ FSA Page 4.1-40

I incorporate my opening brief into this reply brief in its entirety.

Conclusion

The Commission is doing great work on other issues. It should focus its efforts on projects that actually benefit the public. Our Natural Gas fleet is fully built out. We have no need or desire to continue, as ratepayers, to pay for projects that do not serve our needs. The era of Fossil fuel fired mega-facilities should be over. The Commission has the authority and duty to send this message. I apologize if my presentation of these issues does not meet the standard of those that are trained and paid to participate. Dated October 11, 2010.

/

Rob Simpson



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

APPLICATION FOR CERTIFICATION
FOR THE **CARLSBAD ENERGY
CENTER PROJECT**

**Docket No. 07-AFC-6
PROOF OF SERVICE**
(Revised 6/14/2010)

APPLICANT

David Lloyd
George Piantka, PE.
Carlsbad Energy Center, LLC
1817 Aston Avenue, Suite 104
Carlsbad, CA 92008
david.lloyd@nrgenergy.com
george.piantka@nrgenergy.com

APPLICANT'S CONSULTANTS

Robert Mason, Project Manager
CH2M Hill, Inc.
6 Hutton Centre Drive, Ste. 700
Santa Ana, CA 92707
Robert.Mason@ch2m.com

Megan Sebra
CH2M Hill, Inc.
2485 Natomas Park Drive, Ste. 600
Sacramento, CA 95833
Megan.Sebra@ch2m.com

COUNSEL FOR APPLICANT

John A. McKinsey
Stoel Rives LLP
500 Capitol Mall, Suite 1600
Sacramento, CA 95814
jamckinsey@stoel.com

INTERESTED AGENCIES

California ISO
E-mail Preferred
e-recipient@caiso.com

INTERVENORS

Terramar Association
Kerry Siekmann & Catherine Miller
5239 El Arbol
Carlsbad, CA 92008
siekmann1@att.net

City of Carlsbad
South Carlsbad Coastal
Redevelopment Agency
Allan J. Thompson
21 "C" Orinda Way #314
Orinda, CA 94563
allanori@comcast.net

City of Carlsbad
South Carlsbad Coastal
Redevelopment Agency
Joseph Garuba,
Municipals Project Manager
Ronald R. Ball, Esq., City Attorney
1200 Carlsbad Village Drive
Carlsbad, CA 92008
E-mail preferred
Joe.Garuba@carlsbadca.gov
ron.ball@carlsbadca.gov

California Unions for Reliable Energy
("CURE")
Gloria D. Smith & Marc D. Joseph
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
gsmith@adamsbroadwell.com
mdjoseph@adamsbroadwell.com

Center for Biological Diversity
c/o William B. Rostov
EARTHJUSTICE
426 17th St., 5th Floor
Oakland, CA 94612
wrostov@earthjustice.org

Power of Vision
Julie Baker & Arnold Roe, Ph.D.
4213 Sunnyhill Drive
Carlsbad, California 92013
powerofvision@roadrunner.com

Rob Simpson
Environmental Consultant
27126 Grandview Avenue
Hayward, CA 94542
rob@redwoodrob.com

ENERGY COMMISSION

JAMES D. BOYD
Vice Chair and Presiding Member
jboyd@energy.state.ca.us

ANTHONY EGGERT
Commissioner and Associate Member
aeggert@energy.state.ca.us

Paul Kramer
Hearing Officer
pkramer@energy.state.ca.us

Mike Monasmith
Siting Project Manager
mmonasmii@energy.state.ca.us

Dick Ratliff
Staff Counsel
dratliff@energy.state.ca.us

*Lorraine White
Adviser to Commissioner Eggert
lwhite@energy.state.ca.us

Jennifer Jennings
Public Adviser's Office
publicadviser@energy.state.ca.us

DECLARATION OF SERVICE

I, Robert Simpson, declare that on Oct 11, 2010, I served and filed copies of the attached ROB SIMPSON'S POST-EVIDENTIARY HEARING REPLY BRIEF dated 10/11/10. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: **[<http://www.energy.ca.gov/sitingcases/carlsbad/index.html>]**. The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

For service to all other parties:

sent electronically to all email addresses on the Proof of Service list;

_____ by personal delivery;

Via Email

AND

For filing with the Energy Commission:

sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (preferred method);

CALIFORNIA ENERGY COMMISSION

Attn: Docket No. 07-AFC-6
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury 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.

/
Robert Simpson