

William B. Rostov (State Bar No. 184528)
EARTHJUSTICE
426 17 St., 5th Floor
Oakland, California 94612
Tel: (510) 550-6725; Fax: 510-550-6749
wrostov@earthjustice.org

Attorney for Intervenor
Center for Biological Diversity

DOCKET 07-AFC-6
DATE _____
RECD. <u>AUG 18 2010</u>

STATE OF CALIFORNIA
State Energy Resources
Conservation and Development Commission

In the Matter of:)	
)	DOCKET NO: 07-AFC-6
CARLSBAD ENERGY CENTER PROJECT)	CENTER FOR BIOLOGICAL
)	DIVERSITY'S OPENING BRIEF
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INTRODUCTION

The California Energy Commission staff (“Staff”) proposes to license a new 558 MW natural gas power plant in Carlsbad, California. Staff estimates that the Carlsbad Energy Center Project (“CECP” or “Project”) will emit 846,000 tons CO₂-equivalent emissions.¹ Staff improperly finds that the Project’s greenhouse gas (“GHG”) emissions will not constitute a significant effect pursuant to the California Environmental Quality Act (“CEQA”). Rather than do the proper CEQA analysis, Staff relies on a flawed theory that the efficiency of the Project justifies finding that this new source of greenhouse gas emissions does not constitute a significant effect. Additionally, the environmental analysis does not consider the use of regasified liquefied natural gas (“LNG”) as part of the Project even though the use of LNG is reasonably foreseeable. Staff also does not consider an alternative to the Project that could significantly reduce the emissions of greenhouse gases.

The errors in the environmental analysis begin in the project description and continue throughout the Final Staff Assessment (“FSA”). Since the project description fails to include the use of LNG, the environmental analysis fails to identify and quantify the impacts of LNG use, which includes increased emissions of greenhouse gases.

When discussing greenhouse gases, Staff vociferously argues that it can satisfy the public information requirements of CEQA by simply averring that the Project will not have a significant impact on the environment. In addition to ignoring the increased greenhouse gas emissions from the use of LNG, Staff posits a theory that the Project would result in an unquantified net reduction of greenhouse gases, despite calculations that the Project will emit 846,000 tons CO₂E emissions. Staff

¹ Mass emissions of GHGs are converted into carbon dioxide equivalent (CO₂E) emissions to convey global warming potential – a relative measure, compared to CO₂, of a compound’s residence time in the atmosphere and ability to warm the planet. (Exh. 220 [Revised FSA, Air Quality Section] at 4.1-106.)

contends, with no irony, that building this new source of greenhouse gases will have a positive effect on the environment. Not surprisingly, the Applicant concurs.

By focusing on the entire electric system, Staff conveniently disregards the requirements of CEQA, and more generally, creates a framework where there is no need to analyze the global warming impacts of any new gas-fired power plants permitted in California. This method strains credulity. In this proceeding, Staff is responsible for permitting the particular power plant project, not the whole electric system. Staff fails to perform a legally adequate cumulative impacts analysis and refuses to do analysis to determine the amount of CO₂E emissions that would result in a cumulatively significant impact. Instead, Staff improperly skips making a significance determination by conflating its purported “net reduction” theory—that the Project’s emissions will be offset completely by a decrease in emissions from other plants in the Western Electric Grid—with the significance determination. As a result, Staff turns the requirements of CEQA upside down. The Project’s significant environmental impacts have not been properly disclosed, analyzed, or mitigated, and feasible alternatives to the Project have not been adequately explored. The environmental analysis fails to consider a reasonable range of alternatives by not including an alternative that takes into account the state’s statutory mandates and goals for the use of renewable energy and energy efficiency to reduce GHGs.

Although the FSA does not include any applicable state, local or regional standards, ordinance or laws (“LORS”) overrides, it is apparent from the hearings and from the Intervenors’ arguments (*see*, e.g., Opening Brief of City of Carlsbad) that to approve the Project the Commission will need to use its override power. However, the Commission cannot meet the override requirements of Public Resources Code section 25525. There is no evidence in the record that public convenience and necessity demand that the Project be built at the current site. In addition,

there are more prudent, feasible, equitable, and environmentally responsible ways to satisfy San Diego's electricity needs.

Denial of certification for this Project is not only required by law, but also moves California forward on the path to a low carbon future.²

STANDARD OF REVIEW AND BURDEN OF PROOF

The Commission has exclusive power to certify sites and related facilities for thermal power plants in California. (Pub. Res. Code § 25500.) A certificate issued by the Commission operates in lieu of any other permit and supersedes otherwise applicable ordinances, statutes, and regulations. (*Id.*) The Commission itself must determine whether the Project complies with public safety standards, air and water quality standards, and “other applicable local, regional, state, and federal standards, ordinances, or laws.” (Pub. Res. Code § 25523(d)(1); *see also* 20 Cal. Code Regs. § 1752(a).) The Commission may not certify any project that does not comply with applicable LORS unless the Commission finds both (1) that the project “is required for public convenience and necessity” and (2) that “there are no more prudent and feasible means of achieving public convenience and necessity.” (Pub. Res. Code § 25525; *see also* 20 Cal. Code Regs. § 1752(k).) The Applicant bears the burden of providing substantial evidence to support each of the findings and conclusions required for certification of the Project. (*see also* 20 Cal. Code Regs. § 1748(d).)

The Commission also serves as lead agency for purposes of CEQA. (Pub. Res. Code § 25519(c).) The Commission's power plant siting process is a certified regulatory program for purposes of CEQA. (*See* Pub. Res. Code § 21080.5; 14 Cal. Code § 15251(j) (“CEQA Guidelines”)³)

² The Center for Biological Diversity (the “Center”) focuses on a narrow set of issues. The other issues raised by the Commission are addressed by other Intervenors. The Center reserves the right on Reply to address any issues raised by the other Opening Briefs.

³ The Guidelines are characterized as “regulations . . . to be followed by all state and local agencies . . .” and are “binding on all public agencies in California.” (CEQA Guidelines § 15000 *et seq.*) Courts “afford great weight to the Guidelines except when a provision is clearly unauthorized or erroneous under CEQA.” (*Laurel Heights Improvement Ass'n v. Regents of the Univ. of California* (“*Laurel Heights*”) (1988) 47 Cal. 3d 376, 391 n.2.)

This certification permits the agency to submit a plan or other written document (“functional equivalent document”) in lieu of an environmental impact report. (Pub. Res. Code § 21080.5.) Although certification exempts the Commission from CEQA’s environmental impact report requirement, the Commission still must comply with CEQA’s substantive and procedural mandates. (Pub. Res. Code §§ 21000, 21002; *Mountain Lion Foundation v. Fish & Game Comm’n* (1997) 16 Cal.4th 105, 134; *Sierra Club v. State Bd. of Forestry* (1994) 7 Cal.4th 1215, 1236; *Joy Road Area Forest and Watershed Ass’n v. Cal. Dept. of Forestry and Fire Protection* (2006) 142 Cal.App.4th 656, 667-68.) Like an Environmental Impact Reports (“EIR”), a functional equivalent document *must* include a description of alternatives to the proposed activity as well as mitigation measures to minimize any significant adverse effect that the activity will have on the environment. (Pub. Res. Code § 21080.5(d)(3)(A).) Under CEQA, the Commission may not certify the Project unless it specifically finds either (1) that changes or alterations have been incorporated into the Project that “mitigate or avoid” any significant effect on the environment, or (2) that mitigation measures or alternatives to lessen these impacts are infeasible, and specific overriding benefits of the Project outweigh its significant environmental effects. (Pub. Res. Code § 21081(a); 20 Cal. Code Regs. § 1755(c).) These findings must be supported by substantial evidence in the record. (Pub. Res. Code § 21081.5; CEQA Guidelines §§ 15091(b), 15093; *Sierra Club v. Contra Costa County* (1992) 10 Cal.App.4th 1212, 1222-23.)

“CEQA is a comprehensive scheme designed to provide long-term protection to the environment.” (*Mountain Lion Found. v. County of Kern* (1997) 16 Cal.4th 105, 112 [citing Pub. Res. Code § 21001].) At its most fundamental level, CEQA provides “public agencies and the general public with detailed information about the effects of a proposed project on the environment.” (*San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal.App.3d 61, 72.) CEQA is intended “to be interpreted in such manner as to afford the fullest possible

protection to the environment within the reasonable scope of the statutory language.” (*Laurel Heights* (1988) 47 Cal.3d 376, 390 [quoting *Friends of Mammoth v. Board of Supervisors* (1972) 8 Cal.3d 247, 259].)

The EIR is the “heart of CEQA;” it is an “environmental ‘alarm bell’ whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return.” (*Laurel Heights*, 47 Cal.3d at 392 [citations omitted].) “The EIR is also intended to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.” (*Id.*) The EIR, like the functional equivalent document, serves as an accountability document that “protects not only the environment but also informed self-government.” (*Id.*; *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal. 4th at 1229 [citing *Laurel Heights*, 47 Cal.3d at 392].)

ARGUMENT

I. The Project Description Is Inadequate Because It Fails to Consider the Use of Regasified Liquefied Natural Gas As Part of the Project.

By failing to consider the use of regasified liquefied natural gas (“LNG”) as part of the project description, the environmental analysis fails to inform the public about the whole of the project. “‘An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.’ ” (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 655 [quoting *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199, 197-98].) However, an EIR that fails to inform, confuses, or misleads the public and decisionmakers is fatally flawed. (*San Joaquin Raptor*, 149 Cal.App.4th at 672 [EIR fundamentally flawed when “public and decisionmakers were not adequately informed about the full scope and magnitude of the Project”].) “If a final EIR does not ‘adequately apprise all interested parties of the true scope of the project for intelligent weighing of the environmental consequences of the project,’ informed decisionmaking cannot occur under CEQA and the final EIR is inadequate as a matter of

law.” (*Riverwatch v. Olivehain Municipal Water Dist.* (2009) 170 Cal.App.4th 1186, 1201 [quoting *City of Santee v. County of San Diego* (1989) 214 Cal.App. 3d 1438, 1454-55].)

Fuel sources, including LNG, must be identified in the project description and evaluated in the EIR. When applicable, the project description must include the “[t]otal energy requirements of the project *by fuel type and end use*,” and the “[i]dentification of energy supplies that would serve the project.” (CEQA Guidelines Appendix F § II.A.3, 4.) A “project” is defined as “the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment” Thus, the project description and the environmental effects analysis will not be adequate and complete without a full description of near-term and long-term sources of fuel that can be relied on to operate the plant, as well as an analysis of any significant increase in fuel needs brought about by the project. (*See Vineyard Area Citizens for Responsible Growth, Inc., v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 421 [EIR held insufficient because it did not “clearly and coherently” explain how the project’s long-term water demand will likely be met with identified sources, the environmental impacts of using these sources, and how those impacts would be mitigated].)

A. The Use of Liquefied Natural Gas Is Reasonably Foreseeable.

The project description should have considered regasified LNG as a probable fuel source for the project. “[A]n EIR must address the impacts of ‘reasonably foreseeable’ future activities related to the proposed project.” (*Vineyard*, 40 Cal.4th at 428 [citing *Laurel Heights* at 398-99].) The CEQA Guidelines generally address the need to describe future events in an EIR, stating that “[w]hile foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can.” (CEQA Guidelines § 15144.)

The use of LNG at the Carlsbad plant is a reasonably foreseeable consequence of the project and an action that will be significant based on its environmental effects. The project will replace

three aging boilers, known as Units 1, 2, and 3, with two new natural gas-fired turbines. In 2008, Units 1, 2, and 3 used a combined total of 1.28 billion cubic feet of natural gas. (Exh. 83 at 15.) The two new turbines will require an estimated 8 billion cubic feet of natural gas per year *per turbine*. (Exh. 4 at 5.1-31.) This represents more than a 12-fold increase in natural gas consumption. CEC Staff's Final Staff Assessment fails to adequately assess this increased need for natural gas and does not even acknowledge that regasified LNG from Mexico is a reasonably foreseeable source of natural gas that could be used to meet some or all of this increased demand.

It is reasonably foreseeable that regasified LNG will be supplied to the Carlsbad plant due to its close proximity to Sempra's new LNG-receiving terminal in Baja California and the clear intent of Sempra, Southern California Gas Company's and San Diego Gas & Electric's ("SDG&E") parent company, to sell regasified LNG into the San Diego service territory.

The Costa Azul terminal is located in Northern Baja Mexico between Ensenada and Tijuana. (Exh. 607 at 4.) The terminal was built at a cost of more than 1 billion dollars and has a send-out capacity of 1 billion cubic feet per day, 100 percent of which is already under contract for the next twenty years. (Exh. 607 at 2-3 and Exh. 608 at 6, 25 & 35.) The terminal is connected to the San Diego area natural gas pipeline. (Exh. 607 at 4-5.) As expert witness Rory Cox explained in his February 3, 2010 testimony to the Commission, "There is a natural gas pipeline network connecting that terminal to southern California at a couple of different receipt points. One of those receipt points is called Otay Mesa, near Tijuana. And at that receipt point it transfers from the gas grid that's in Mexico into the gas grid that's in the SDG&E service territory." (Transcript, Evidentiary Hearing, Feb. 3, 2010 ("Tr."⁴) at 128.)

Furthermore, Sempra has made it clear that it intends to sell regasified LNG from its Costa Azul terminal into California, and in fact, has already begun receiving shipments of LNG. (Exh. 609

⁴ All Transcript cites refer to the February 3rd Evidentiary Hearing unless otherwise noted.

at 1.) In his written testimony, Mr. Cox explained the efforts Sempra and SDG&E have undertaken to date (beyond the \$1 billion plus investment in the terminal itself) to secure a place in the San Diego marketplace for regasified LNG delivery. Mr. Cox stated that:

In 2004, SDG&E made the case at the California Public Utilities Commission that new receipt points on the California/Mexico border were needed. In particular, the company proposed the “Interstate Pipeline Capacity Acquisition Procedure” as a means to “maximize capacity acquisition opportunities with regulatory certainty.” (quoting from Exh. 606.) One of the receipt points specified was Otay Mesa, which provides a direct gateway to the same SDG&E service territory that will be served by Carlsbad Energy Center Project.

Bringing natural gas from Mexico into the SDG&E service territory was one of SDG&E’s main objectives in that proceeding. SDG&E also asked the CPUC to allow for the authority to renegotiate reduced amounts of natural gas from pre-existing contracts and to terminate the expiring contracts with El Paso Natural Gas Company (El Paso), Transwestern Pipeline Company (Transwestern), and Gas Transmission Northwest Corporation (GTNC) in conjunction with preserving the utilities’ rights of first refusal for firm capacity on these interstate pipelines. On September 2, 2004, the CPUC granted these requests.

SDG&E would be interested in such an arrangement in order to supply natural gas from Costa Azul to the customers in their service territory, largely for electricity generation. They were granted that authority by the CPUC. Once natural gas crosses the Otay Mesa receipt point, it enters into the SDG&E natural gas grid.

(Exh. 647 at 2-3.)

Mr. Cox also explained that Sempra successfully worked to have the PUC weaken the Wobbe Index standards for gas quality coming into California to ensure that regasified LNG (which has a higher Wobbe index than domestic natural gas) could be delivered to California markets. (Tr. at 129-30.)

The Energy Commission’s 2009 Integrated Energy Policy Report (Exh. 602) also identifies the Costa Azul terminal as a foreseeable source of natural gas for California. The 2009 IEPR states:

A potential additional source of natural gas supply is LNG. In the near future, California could receive natural gas from an LNG facility located at Costa Azul, Mexico. The construction of the Costa Azul LNG Terminal was completed last year and still awaits the first of its commercial deliveries. LNG is available, but suppliers at the moment are reluctant to enter the lower-priced Pacific Coast market. When supply does start to flow, North Baja Mexico will have first choice to

receive up to 300 MMcf/d to meet its industrial and power plant needs. Any excess in supply [up to 700 MMcf/d] would add to California's supply mix.

(Exh. 602 at 131.)

Finally, in the report titled San Diego Smart Energy 2020, cited by Mr. Cox in his written and oral testimonies (Exh. 647 at 5-6 and Tr. at 134-5 and 288) and included as Exh. 632, Bill Powers explains that “SDG&E’s parent company Sempra Energy will begin operation of its 1,000 million cubic feet per day (mmcf/d) Costa Azul LNG import terminal in 2008. Sempra has preliminary approval from the CPUC to reverse flow on the SDG&E natural gas pipeline system to move this LNG from the Costa Azul LNG terminal directly into the San Diego market. The CEC forecasts that this flow reversal will occur in 2009.” (Exh. 632, Attachment C, at 99.) In his report, Mr. Powers cites the CEC’s 2007 Natural Gas Market Assessment, which makes the following major finding regarding natural gas: “Importation of LNG is expected from Mexico into San Diego through the Transportadora De Gas Natural De Baja California (TGN) pipeline beginning in 2009.” (Exh. 632, Attachment C, at 103.) Powers’ report also cites the CEC’s 2007 IEPR Natural Gas Forecast – Revised Reference Case as forecasting LNG imports rising to more than 400 mmcf/d through Otay Mesa in 2016. (Exh. 632, Attachment C, at 103.) Powers points out that “[t]his flowrate [from the Costa Azul terminal into San Diego] is greater than the average daily natural gas demand forecast by SDG&E for 2010 of 333 mmcf/d.” (Exh. 632 Attachment C, at 103.)

Although the delivery of LNG may be delayed due to market forces (Tr. At 132:2-21.), the likelihood of the CECP running exclusively on regasified LNG from Costa Azul is reasonably foreseeable. The CEC has itself forecast that in the near future all natural gas supplied to the SDG&E service territory could be regasified LNG from Costa Azul. The CEC should, therefore, consider just such a scenario in its analysis of the greenhouse gas emissions from the CECP. This is analogous to the facts of *Vineyard*, where the Supreme Court required the analysis of short-term and long-term water supplies. (*Vineyard*, 40 Cal. at 431.) In *Vineyard*, the Court invalidated a final EIR

for a large, mixed-use development project because it neglected to present a plan for long-term provision of water supplies to the development, therefore failing to disclose the impacts of providing water supplies long-term. (*Id.* at 421.) Despite the general identification of intended water sources, the final EIR was insufficient because it did not “clearly and coherently” explain how the project’s long-term demand would likely be met with identified sources, the environmental impacts of using these sources, and how those impacts would be mitigated. (*Id.*) If the future availability of water sources is uncertain, CEQA requires a “discussion of possible replacement sources” and an analysis of the environmental effects associated with using these sources. (*Id.* at 432.) Here, there is even less analysis than that rejected by the Court in *Vineyard*. The FSA discusses the natural gas in general terms but fails to differentiate between the different types of natural gas that may be supplied to CECP.

Staff’s argument that the use of LNG at CECP is speculative is not supported by the record. Regasified LNG has already flowed from the \$1 billion Costa Azul terminal into Southern California and, as established above, both the CEC and the PUC anticipate that up to 700 mmcf of regasified LNG could flow into the SDG&E service territory in the near future – far more than San Diego’s expected demand for natural gas. (*See* Exh. 632, Attachment C, at 103.) It is not, therefore, speculative that over the estimated thirty years of CECP operation regasified LNG will be used. An agency may only validly conclude impacts are too speculative “*after thorough investigation.*” (CEQA Guidelines § 15145 [emphasis added].) Were it otherwise, the public would be forced to rely on an agency’s bare conclusion, thereby precluding informed self-government. (*See* Guidelines § 15003.) Here, Staff made no attempt to thoroughly investigate the possibility of increased greenhouse gas emissions from the Project. Instead, Staff improperly relies on the mantra of “speculation” to avoid the necessary analysis of the impacts of using LNG during the lifetime of the Project.

B. The Use of LNG Increases Greenhouse Gas Emissions from the Project.

The environmental analysis for CECP should evaluate all emissions, including additional greenhouse gases emitted from the use of LNG as a fuel source for the Project. CEQA requires that the environmental effects analysis include measurement of “all project-related pollution emissions.” (*Kings County Farm Bureau v. City of Hanford*, (1990) 221 Cal. App. 3d 692, 716.) The environmental effects analysis should include both short-term and long-term effects as well as both direct and indirect effects. (CEQA Guidelines § 15126.2(a).) Mr. Cox testified that the use of regasified LNG could add up to a twenty-five percent increase in greenhouse gas emissions from the project. (Tr. at 131, 135.) Mr. Cox cited studies that compared the greenhouse gas emissions from using regasified LNG to the use of a domestic supply of natural gas. (Exh. 647 at 5-6 [citing Exh. 632; Exh. 619, *LNG Supply Chain Greenhouse Gas Emissions from the Cabrillo Deepwater Port: Natural Gas from Australia to California*; and Exh. 620, *Comparative Life Cycle Air Emissions of Coal, Domestic Natural Gas, LNG, and SNG for Electricity Generation*].) For example, Mr. Cox cites the San Diego Smart Energy 2020 report which found that:

Approximately 50 percent of the natural gas sold by SDG&E is used in electric generation plants. The remaining 50 percent is used primarily by commercial and residential customers for space heating, water heating, and cooking and related uses. All of this consumption will convert to natural gas derived from imported LNG when flow is permanently reversed on the SDG&E pipeline system in 2009. . . .The lifecycle GHG emissions from natural gas fired power plants in SDG&E service territory, and those served by the Baja California natural gas pipeline system which is interconnected with the Costa Azul LNG terminal, will increase by approximately 25 percent in 2009.

(Exh. 632, Attachment C, at 99.)

Both Mr. Walters and Mr. Rubenstein offer their opinions that there is disagreement about the emissions of GHGs from LNG being greater than that of domestic natural gas (Tr. at 333, 364-367), but these opinions are without support in the record. Neither of the documents referred to by Mr. Walters or Mr. Rubenstein are part of the record. Expert testimony must have adequate

foundation and not rely on speculation and conjecture. (*Citizen’s Committee to Save our Village v. City of Claremont* (1995) 37 Cal.App.4th 1157, 1171.) Here, Mr. Rubenstein testified about a report that he claims to have prepared allegedly showing only a small increase in emissions due to LNG use but he refused to name the report or even disclose who hired him to prepare it. (Tr. at 380 [Mr. Rubenstein is misidentified as Mr. Vidaver].) In *Berkeley Keep Jets Over the Bay Comm. v. Bd. of Port Comm’rs* (2001) 91 Ca.1.App.4th 1344, 1355, the court noted that a “reviewing court is not to ‘uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference.’” (Here, the Applicant did not even put forth a study. The Applicant’s witness merely referred to a report that no party had a chance to evaluate.⁵ Similarly, Mr. Walters mentioned a Sempra energy report that he claimed discounted the emissions of GHGs, but this was not placed in the record either. Neither the opinion of Mr. Rubenstein nor that of Mr. Walters constitutes substantial evidence, because neither relies on information in the record that could be reviewed and analyzed by the parties.

In sum, the Project Description improperly fails to include the use of LNG and as a consequence fails to inform the public and decisionmakers about the potential increase in greenhouse gas emissions from the Project.

II. Staff’s Analysis of the Greenhouse Gas Emissions from the Project Fails to Meet the Requirements of CEQA.

Staff’s environmental analysis failed to comply with the basic requirements of CEQA, because the Staff fails to find that the emission of hundreds of thousands of tons of greenhouse gases from the Project is a significant impact. “The fundamental purpose of an EIR is “to provide public

⁵ Moreover, neither Staff nor Applicant even mentioned these reports when Mr. Cox was testifying. They did not cross examine Mr. Cox on these findings or provide him with an opportunity to respond to the testimony. In fact, when asked if he was going to cross examine Mr. Cox or redirect his staff on the LNG issue, Mr. Ratliff explicitly said no. (Tr. at 287:24-25; 288:1-2.) As a result, this information was raised for the first time on an unexpected redirect after Mr. Cox had been dismissed to accommodate his travel schedule.

agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment.”” (*Vineyard*, 40 Cal.4th at 428 [quoting Pub. Res. Code § 21061].) “[A]n EIR must adequately identify and analyze the significant environmental effects of the proposed project.” (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 660 [citing Pub. Res. Code § 21100(b) and CEQA Guidelines § 15126.2(a)].) The term “project” refers to the “activity” for which approval is being sought. (CEQA Guidelines § 15378(c).) Here, the Project is the combined cycle power plant that NRG proposes to build in Carlsbad.

The Commission must quantify the GHG emissions from the Project, measure them against a defensible and quantitative baseline, determine their significance, and propose feasible mitigation measures or alternatives. As with any potentially significant environmental impact, CEQA requires the Commission to first “meaningfully attempt” to quantify the Project’s greenhouse gas emissions and then determine whether the impact of these emissions is significant. (*Berkeley Keep Jets* 91 Cal.App.4th at 1370-71 [abuse of discretion where Port did not “meaningfully attempt to quantify the amount of mobile-source emissions that would be emitted from normal operations” and then determine “whether these emissions will result in any significant health effects”].) The Governor’s Office of Planning and Research (“OPR”) issued a Technical Advisory articulating the method for analyzing greenhouse gases; it called for lead agencies to first “make a good-faith effort, based on available information, to calculate, model, or estimate the amount of CO₂ and other GHG emissions from a project” and then determine whether these emissions “constitute[] a significant impact.” (OPR, Technical Advisory, *CEQA & Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review* (June 17, 2008) at 5-6, Exh. 626.) This determination of significance

was not done here. Staff quantified some of the emissions from the Project and then improperly stopped the CEQA analysis. Staff's own analysis shows the Project may emit 846,076 tons of CO₂E annually and the construction of the project will result in an additional 4,686 tons of CO₂E. (Exh. 220 at 4.1-107.) After estimating the emissions from the Project, Staff should have analyzed the significance of these emissions. (*Berkeley Keep Jets*, 91 Cal.App.4th at 1370-71.) Rather than doing the required analysis, Staff chose to substitute its "net reduction" theory for an actual significance determination.

A. Increasing Man-Made Emissions of Greenhouse Gases Contribute to the Ever Worsening Global Warming Problem.

Global warming is already occurring, and it is caused by human activity that causes emissions of greenhouse gases. (Exh. 621 at 2.) With each passing day, the urgency of making immediate greenhouse gas reductions becomes greater. The scientific evidence and projections continue to reveal that the effects of global warming are occurring at rates faster than previously predicted, and the global climate is on the verge of catastrophic tipping points that could irreversibly affect our planet. (Exh. 615 & 616.) The U.S. EPA recently made an official finding that emissions of greenhouse gases are endangering people's health. (Exh. 613; *see also* Cal. Health and Safety Code § 38501(a) ["Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems"].) A report from the California Climate Change Center states "[b]ecause most global warming emissions remain in the atmosphere for decades or centuries, the choices we make today greatly influence the climate our children and grandchildren inherit. The quality of life

they experience will depend on if and how rapidly California and the rest of the world reduce these emissions.” (Exh. 621 at 2.)

Scientists, including NASA’s James Hansen, believe that we have already exceeded a sustainable level of greenhouse gases in our atmosphere and that stabilization requires a reduction from current levels. (Exh. 614.) A paper by Matthews and Caldeira argues that in order to stabilize atmospheric levels of greenhouse gases, CO₂ emissions must be reduced to “nearly zero” by mid-century. (Exh. 617 at 1.) Certainly these conclusions should come as no surprise given the accelerating impacts of global warming that we are already seeing.

B. The Environmental Assessment of the Significance of the Greenhouse Gas Emissions from the Project Is Fatally Flawed.

By failing to analyze the significance of the GHG emissions, the environmental analysis “omits material necessary to informed decision making and informed public participation” in direct contravention of CEQA. (*Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1106; CEQA Guidelines § 15144 [a lead agency must “find out and disclose all that it reasonably can”].) The recent amendments to the CEQA guidelines set out the factors that a lead agency should consider when assessing the significance of impacts from greenhouse gas emissions on the environment:

- (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
- (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
- (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

(CEQA Guidelines § 15064.4(b).)

1. The Building of a New Power Plant Increases Greenhouse Gas Emissions.

a. The Proper Baseline Is Project Specific.

Staff demonstrates that the Project will emit greenhouse gases (Exh. 220 at 4.1-100). In

addition, as discussed above, the AFC shows that the Project will dramatically increase the demand for natural gas—increased demand that very likely will be met through LNG imports from Mexico. The significance of a project’s impacts can be ascertained only if the agency first establishes an accurate description of the existing physical conditions against which those impacts are to be measured. (*San Joaquin Raptor*, 149 Cal. App. 4th at 655.) “An EIR ‘must include a description of the physical environmental conditions in the vicinity of the project.’” (*Friends of Eel River v. Sonoma County Water Agency* (2003) 108 Cal. App. 4th 859, 874 [quoting CEQA Guidelines § 15125(a)].) The absence of an accurate description of the environmental baseline precludes the adequate investigation and discussion of the environmental impacts of the project. (*San Joaquin Raptor*, 149 Cal. App. 4th at 657-58.) Staff improperly discounts its own quantitative analysis of the Project’s projected emissions and argues that the relative efficiency of the Project in relation to the Western Electric Grid should be the baseline from which to analyze the increase in greenhouse gas emissions from the Project. (Exh. 220 at 4.1-100, Tr. 242:9-14.)

Staff’s approach ignores the increase in emissions directly caused by the Project - the very thing that must be analyzed in a functionally equivalent document. (CEQA Guidelines § 15064.4(b)(1).) The discussion of baseline needs to describe the physical environmental conditions of this specific project for an accurate assessment of the environmental impacts of CECP to be fully understood. (*See Kings County*, 221 Cal. App. 3d at 718 [citing CEQA Guidelines 15064(b)] [“The significance of an activity depends upon the setting”].) The efficiency rate of the Project (Exh. 220 at 4.1-112 and 5.3-1), on which Staff and Applicant rely, provides an incomplete picture of the Project’s impacts. In fact, Staff even admits that the Project will operate at times in conjunction with less efficient units both on the same site as CECP and at other locations in the load pocket. (Exh. 220 at 4.1-112 and Tr. at 244:16-245:6.) Moreover, both the efficiency of the plant and the total output of the greenhouse gases are factors in determining the Project’s impact. Staff provides no legal justification for choosing efficiency

over total emissions.

Simply arguing that global warming is a global problem does not give Staff license to redefine the CEQA baseline, yet that is exactly what Staff did. (Tr. at 244:6-11.) In fact, Staff made the same mistake as the agency in *Kings County*. In an analogous situation related to ozone pollution, the court in that case found that:

[t]he relevant question to be addressed in the EIR is not the relative amount of precursors emitted by the project when compared with preexisting emissions, but whether any additional amount of precursor emissions should be considered significant in light of the serious nature of the ozone problems in this air basin.

(*Kings County*, 221 Cal. App. 3d at 718.) Here, Staff should have analyzed whether the Project's emissions are significant in light of the serious nature of global warming and the over-saturation of the atmosphere with greenhouse gases. Instead, Staff did exactly what the court in *Kings County* cautioned against, *i.e.* it examined the relative amount of greenhouse gases emitted by the project when compared with preexisting emissions in the Western Electrical Grid. (Exh. 220 at 4.1-108.)

b. Using the Western Electric Grid as the Greenhouse Gas Emissions Baseline Fails to Inform the Public and Decisionmakers of the Significant Impact of the Project.

Staff's "Western Electric Grid" baseline provides an illusory basis for a finding of no significant adverse impact and masks the actual increased emissions that will occur from this Project. By describing the environmental baseline as the Western Electric Grid, the public and decisionmakers are not given all of the information needed to partake in a meaningful analysis of the environmental impacts of CECP. As the California Supreme Court recently noted, "An approach using hypothetical allowable conditions as the baseline results in 'illusory' comparisons that 'can only mislead the public as to the reality of the impacts and subvert full consideration of the actual environmental impacts,' a result at direct odds with CEQA's intent." (*Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 2010 WL 890960 No. S161190 at *5 [quoting *Environmental Planning & Information Council v. County of El Dorado* (1982) 131 Cal. App. 3d 350, 358].)

The FSA does not clearly identify the assumptions upon which it relies for the environmental baseline that it does use. “The decisionmakers and general public should not be forced to sift through obscure minutiae or appendices in order to ferret out the fundamental baseline assumptions that are being used for purposes of the environmental analysis.” (*San Joaquin Raptor*, 149 Cal. App. 4th at 659.) For example, the FSA contains tables that discuss the efficiency of the Project compared to other units on the Grid, but nowhere in the FSA does Staff provide a formula to convert the gains in efficiency to a corresponding amount of greenhouse gas reductions. (Exh. 220, Table 7 & 11, 4.1-114, 4.1-120.) To be adequate, information in an EIR must inform the public. (*See Vineyard*, 40 Cal.4th at 442 & n.12 [finding “unexplained” groundwater figures inadequate]; *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 953-54 [holding inadequate EIR’s “recitation of month-end lake levels” without “explain[ing] how those lake levels were derived or maintained”]; *San Joaquin Raptor*, 149 Cal.App.4th at 663 [holding that estimate of Project’s groundwater use inadequately informed the public]. *Cf. Napa Citizens for Honest Government v. Napa Cty. Bd. of Supervisors* (2001) 91 Cal. App.4th 342, 363 [holding that the EIR “fulfilled its informational purpose” because its drafters “explained in detail their calculations of the impact the Project would have on traffic”].) Here, Staff fails to proceed in a manner required by law, because the EIR does not include the data and calculations underlying the GHG emission reduction assumptions. (*See Vineyard*, 40 Cal.4th at 442.)

Rather than using a quantified analysis that would provide actual data for the public and decisionmakers to evaluate, Staff expands the baseline to consist of the entire electric system and dismisses the projected emission of greenhouse gases as a less than significant impact by relying on economic assumptions about the operation of the Project within the Grid. Moreover, the Grid baseline analysis is so vague that it could be applied to nearly any new proposed gas-fired power plant. Mr. Hunt, an expert for the Center, testified that, while there has been a qualitative analysis of

the general characteristics of natural-gas generation plants, Staff has not shown any quantitative data about the impact of this specific project. (Tr. at 186:18-187:3.) He testified that “to make a decision on this plant [...] you need to have a quantitative framework that allows you to say in a given situation, yes or no based on this analysis.” (Tr. at 187:3-6.) Staff’s analysis would allow the siting of any number of additional gas-fired plants with no regard for whether those plants are crowding out renewables and certainly does not guarantee that the alleged GHG benefits are not negated by the continued addition of similar fossil-fuel plants approved under the same vague guise of “increased efficiency,” “local capacity requirements,” and “integration of renewables.” (Exh. 220 at 4.1-101-02.) As explained below, the record shows that there is insufficient evidence to support the conclusion that siting this Project at the existing power plant location will reduce emissions of greenhouse gases either through the dedicated shutdown of specific plants or by optimizing the integration of renewables.

c. Applicant’s and Staff’s Conclusion that the Project Will Cause a Net Reduction in GHG’s Is Not Supported by Substantial Evidence.

The Staff’s claim that the Project will reduce emissions is not only absurd on its face, but is grossly misleading to decisionmakers and the public. The entire significance analysis, including the description of the baseline, is based on fundamental assumptions that are not identified, explained, or supported by any evidence. Substantial evidence “includes fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact. Substantial evidence is not argument, speculation, unsubstantiated opinion or narrative, evidence that is clearly inaccurate or erroneous, or evidence of social or economic impacts that do not contribute to, or are not caused by, physical impacts on the environment.” (Pub. Resources Code, § 21080(e)(1)-(2).)

Here, both Staff and Applicant conclude that the Project will result in a net reduction of greenhouse gases. (Exh. 220 at 4.1-101 and Exh. 4 at 5.1-60.) However, neither Staff nor Applicant can demonstrate how or where such reductions will occur because there was no specific

quantification of the greenhouse gas reductions that will supposedly occur. For example, while the FSA claims that the CECP will replace aging and inefficient units and once-through cooling units for local reliability purposes (Exh. 220 at 4.1-111-115), Staff did not identify any units other than Units 1, 2, and 3 at the existing Encina plant that would actually retire as a direct result of the project. So the CECP will not, in and of itself, lead to the retirement of these other plants, and the CEC will need to approve other new plants to facilitate these retirements. (Exh. 220 at 4.1-114 and Tr. at 276:12-18.)

Without showing its math or from where exactly the purported greenhouse gas reductions will come, Staff urges the public to trust that more greenhouse gases will be reduced throughout the greater electric systems than will be added as a result of the Project. Mr. Walters made clear at the evidentiary hearing that Staff did not calculate, nor even identify, the GHG reductions that could be expected from any of the sources alleged to be affected by the Project. When asked by Mr. Rostov “did you net out that the reductions from Units 1 to 3 out of your analysis to get like 600,000 emissions?” (Tr. at 241:2-4.) Mr. Walters responded “No. Our analysis was broader than that. It included more than just the Encina plant [...] we look at this in a system-wide basis, we are not looking at this as a point source.” (Tr. at 241:5-11.) Mr. Rostov then asked, “But some of the net reductions will come from the Units 1 to 3, right, and you counted those - - you counted a baseline of 240,000, correct?” (Tr. at 241:14-17.) To which Mr. Walters replied:

No, not exactly. As I indicated, we’re doing it system-wide. There will be reductions from various sources, including Units 1 through 3; there will be reductions from Units 4 and 5, which would need to operate less; there would be reductions from other units across the area, the peaking units, **but we do not quantify any specific unit.**

(Tr. at 241:18-24.) [Emphasis added]. He explained that “[t]here's no specific quantification because there's no specific knowledge of which plants would go off at any particular time” (Tr. at 242:3-5.) Mr. Walters explains that “[i]t is quantitative to the point of us being able to identify it as being a reduction, that there is a negative value. It's not -- that is quantitative. It's not specific, but it

is quantitative.” (Tr. at 254:4-7.) Similarly, the Applicant came to the same unsupported conclusion; Mr. Rubenstein stated that “once we’ve concluded that there’s a net reduction, the quantification of reduction is not necessary.” (Tr. at 306:3-4.) Mr. Layton reports that Staff “found that it’s negative emissions, it is a decrease in emissions. That seems to be an appropriate level of quantification to allow a decision to be made.” (Tr. at 316:15-18.) Yet at no point does Staff reveal to the public how, exactly, Staff determined this net GHG reduction, because Staff simply relies on its unsupported conclusion that operation of the CECF would displace some unknown number of other, less efficient plants somewhere in the system to avoid any further analysis.

The lack of substantial evidence is analogous to the facts in *Apartment Ass’n of Greater L. A. v. City of L. A.* (2001) 90 Cal.App.4th 1162. In that case, the court found that the petitioners, a residential landlords association, failed to produce substantial evidence because the expert’s opinion was speculative in nature. (*Id.* at 1175, 1176.) At issue was a housing code enforcement program adopted by the city, and the petitioners were arguing that this program would have significant impacts on the environment. (*Id.* at 1175.) The petitioner’s expert testified that the program could *potentially* have an effect on the environment, and that *it was reasonable to assume* that many units would need repair throughout the city. (*Id.* at 1175-76.) The court said such “expert testimony” did not amount to substantial evidence:

We do not believe an expert’s opinion which says nothing more than “it is reasonable to assume” that something “potentially...may occur” constitutes...substantial evidence... “Substantial evidence” is defined in the CEQA guidelines to include “expert opinion supported by facts.” It does not include “argument, speculation, unsubstantiated opinion or narrative.”

(*Id.* at 1176; *see also* *Citizen’s Comm. to Save our Vill. v. City of Claremont* (1995) 37 Cal.App.4th 1157, 1170-71 [court stressed that “speculation and conjecture” regarding a project’s potential environmental impacts do not amount to substantial evidence, even when the speculation and conjecture is posed by an expert].)

Here, the conclusions of Staff and Applicant are not supported by substantial evidence. The blanket assertion that the project will reduce emissions in comparison with the existing baseline

(Exh. 220 at 4.1-101) is exactly the type of “unsubstantiated opinion” and “clearly inaccurate” claim CEQA rejects. (Pub. Res. Code § 21082.2(c); *Laurel Heights*, 47 Cal. 3d at 409 n.12 [“[a] clearly inadequate or unsupported study is entitled to no judicial deference”]; *Californians for Alternatives to Toxics v. Dept. of Food & Agric.* (2005) 136 Cal.App.4th 1, 17 [“conclusory statements do not fit the CEQA bill”].)

2. Since Staff Did Not Adopt a Threshold of Significance, the Environmental Analysis Should Have Analyzed and Discussed the Amount of GHG Emissions That Would Constitute a Significant Impact.

Staff ignores the threshold of significance for GHGs from other agencies and refuses to independently analyze the science of climate change to determine what amount of emissions of GHGs from the Project would be significant. The projected emissions of more than 846,000 tons of CO₂E is much greater than the South Coast Air Quality Management District’s (“SCAQMD”) threshold of 10,000 tons for industrial projects and Air Resource Board (“ARB”) staff’s preliminary draft recommendation of 7,000 tons for industrial projects. (Exh. 628 at 3-13, Exh. 627 at 10.) Staff dismisses the ARB’s proposed threshold as not applicable to power plants and concludes that there are no thresholds of significance that apply to the Project. (Exh. 220 at 4.1-142.) Although Staff need not adopt a threshold of significance (CEQA Guidelines § 15064.4(b)(2)), the lack of established thresholds of significance to evaluate greenhouse gas impacts does not absolve a lead agency from its duty to evaluate a project’s potential impacts; CEQA routinely calls for an agency to evaluate impacts in the absence of thresholds or to exercise its individual discretion in determining the significance of an impact. (*Amador*, 116 Cal.App.4th at 1111 [impacts having “an effect on the environment” are analyzed even where significance criteria are not provided by CEQA Guidelines].) In this case, however, ARB’s and SCAQMD’s thresholds show that the annual emissions from CECP should be considered significant because the emissions are many orders of magnitude higher than these thresholds.

Compounding its error, Staff improperly made a *de minimis* finding for construction impacts without any analysis of how many tons of greenhouse gas emissions are significant. Courts have flatly rejected the notion that the incremental impact of a project is not cumulatively considerable because it is so small that it would make only a *de minimis* contribution to the problem as a whole. (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 117; *see also Kings County*, 221 Cal.App.3d at 720 [“[p]erhaps the best example [of a cumulative impact] is air pollution, where thousands of relatively small sources of pollution cause a serious environmental health problem”].) Yet, Mr. Walters testified that the construction impacts are “orders of magnitude different. It’s a real assessment to make when it’s two orders of magnitude difference.” (Tr. at 236:5-7.) As noted by the Ninth Circuit:

[W]e cannot afford to ignore even modest contributions to global warming. If global warming is the result of the cumulative contributions of myriad sources, any one modest in itself, is there not a danger of losing the forest by closing our eyes to the felling of the individual trees?

(*Center for Biological Diversity v. National Highway Traffic Safety Admin.*, 508 F.3d 508, 550 (9th Cir. 2007) [quoting *City of Los Angeles v NHTSA*, 912 F.3d 478, 501 (D.C. Cir. 1990)].) This logic applies with equal force in the CEQA context. By first making the facially flawed assertion that the Project would reduce greenhouse gases and then conversely claiming Project impacts were too speculative for analysis, Staff avoids the required consideration of the Project’s cumulative contribution to global warming in direct contravention of CEQA. (*See Concerned Citizens of Costa Mesa v. 32d Dist. Ag. Assoc.* (1986) 42 Cal.3d 929, 935 [agency may not sweep “stubborn problems . . . under the rug”].)

3. The Project Does Not Comply with Regulations or Requirements Adopted to Implement a Statewide, Regional, or Local Plan for the Reduction or Mitigation of Greenhouse Gas Emissions.

Staff should have compared the Project’s projected impacts to the existing state of the physical environment in the vicinity of CECP, which does not include the entire Western Grid. Staff, in essence, treats the Grid as an existing plan, and then evaluates the environmental impacts of

CECP based on its impact on the Grid generally. Similar efforts have been rejected in a case in which the agency compared a proposed project to an existing plan, rather than the existing environmental setting. (See, e.g., *Communities for a Better Environment v. South Coast Air Quality Management District* 2010 WL 890960 No. S161190; *Woodward Park Homeowners Assoc., Inc. v. City of Fresno* (2007) 150 Cal. App. 4th 683, 707-711 [quoting EPIC, 131 Cal.App.3d at 354] [“CEQA nowhere calls for evaluation of the impacts of a proposed project on an existing general plan; it concerns itself with the impacts of the project on the environment, defined as the existing physical conditions in the affected area.”].)

A comprehensive statewide energy plan for the siting of new natural gas plants, the integration of thirty-three percent renewables, and the retirement of old plants would be very good public policy. Such a policy could evaluate whether the energy system is on track to achieve greenhouse gas reductions. However, no such plan exists. Mr. Hunt testified that:

[t]he analysis provided so far by the FSA and CAISO, I think, would fail in almost every case to give you a no answer on a proposed natural gas plant. How you say no to a plant that has modern features under the analysis to date, you couldn't, because you can say truthfully, well, yes, it will help with renewables as a backstop resource, yes, it will help with LCR, et cetera et cetera; but the question is how much, where and when. Those are the answers you should be seeking in the analysis.

(Tr. at 187:3-16.) These questions were not answered even though Mr. McInstosh, the ISO representative testifying on behalf of Staff, explicitly concurred with Mr. Hunt, stating that more quantitative analysis “is the correct thing to do.” (Tr. at 218:16-18.) Mr. McIntosh stated that the studies had not been completed to identify the locations and amount of natural gas backup needed to provide backup for achieving thirty-three percent renewables by 2020. (Tr. at 225:10-26:12.) Staff could not identify how, where, or what type of renewable sources the CECP would specifically help to integrate into the electricity system, but instead claimed that the CECP has many of the characteristics of a plant that may help with such integration. (See, e.g., Tr. at 162-163 and Tr. at 303-309.) Also, Staff asserts that the CECP will allow the displacement of high-GHG-emitting coal imports into California, but then admits that not only will the displacement of coal imports not deter

continued operation of the coal plants (Tr. at 267-8:24-3), but that the displaced capacity must still be replaced in the California utilities' portfolios with additional generation. (Tr. at 269:15-25.) Thus, Staff conceded that the displacement of coal contracts was “not an element in the conclusion that we reached that the construction and operation of the CECP would result in a net reduction in GHG emissions.” (Tr. at 269:17-20.) There is no comprehensive plan to integrate this Project with new renewables and no CEQA document evaluating that plan. Without such a plan, Staff's arguments and conclusions about the integration of renewables and compliance with AB 32 make no sense.

C. The Cumulative Impacts Analysis for Greenhouse Gas Emissions Is Inadequate Because It Fails to Account for All Past, Present, and Probable Future Projects.

The FSA's cumulative impact analysis of greenhouse gases violates CEQA, making any conclusion based on that analysis arbitrary and capricious. Rather than properly analyze the impacts of the Project's greenhouse gas emissions, Staff asserts the erroneous conclusion that the Project will miraculously provide potential greenhouse gas benefits. (Exh. 220 at 4.1-124.) What Staff was required to do – but did not – was to evaluate the cumulative significance of these impacts. (*See* Pub. Res. Code § 21083(b)(2).) CEQA requires a cumulative impacts analysis of a proposed project where its possible environmental effects are “individually limited but cumulatively considerable.” (Pub. Res. Code § 21083(b)(2).) “[A]n agency may not...[treat] a project as an isolated ‘single shot’ venture in the face of persuasive evidence that it is but one of several substantially similar operations.... To ignore the prospective cumulative harm under such circumstances could be to risk ecological disaster.” (*Whitman v. Board of Supervisors* (1979) 88 Cal. App. 3d 397, 408 (quoting *NRDC v. Callaway*, 524 F.2d 79, 88 (2d Cir. 1975) [referring to NEPA].)

As the Commission is well aware, CECP is part of a much larger system in which many other fossil fuel plants have already been built and licensed. The cumulative impacts analysis must address the incremental effects of an individual project in connection with effects of “past, present, and probable future projects producing related or cumulative impacts.” (CEQA Guidelines §

15130(b)(1)(4).) This information must be presented as either: 1) “[a] list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or...,” 2) “[a] summary of projections contained in an adopted general plan or related planning document.” (CEQA Guidelines § 15130(1)(A),(B); *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 739-40.) Since there is no applicable adopted general plan or related planning document, the list method must be used in the instant case. (*See* Sec.I.A.3 *supra*.) However, the FSA contains no such list, and the omission of both past and probable future projects from the cumulative impacts analysis hides the true significance and severity of the impacts of CECP.

With its cumulative impacts analysis Staff treats CECP as the only project that the Commission has been asked to license. In contrast, for the purposes of its baseline analysis, Staff argues that the power plants in the Western Electric Grid must be analyzed. Staff cannot have it both ways. The California Supreme Court explained that “an EIS/EIR must reasonably include information about past projects to the extent such information is relevant to the understanding of the environmental impacts of the present project considered cumulatively with other pending and possible future projects.” (*Environmental Protection Information Center v. California Dept. of Forestry and Fire Protection* (“*EPIC*) (2008) 44 Cal. 4th 459, 525.) Including relevant past projects in the cumulative impacts analysis “signifies an obligation to consider the present project in the context of a realistic historical account of relevant prior activities that have had significant environmental impacts. Such historical accounting assists, for example, in understanding development trends.” (*EPIC*, 44 Cal. 4th at 524.) Probable future projects include “not only approved projects under construction and approved related projects not yet under construction, but also unapproved projects currently under environmental review with related impacts or which result in significant cumulative impacts.” (CEQA Guidelines, Discussion Following §15130 available at

<http://ceres.ca.gov/ceqa/guidelines/art9.html>; see *Gray v. County of Madera* (2008) 167 Cal. App. 4th 1099, 1127-1128 [“probable future project” consists of “any future project where the applicant has devoted significant time and financial resources to prepare for any regulatory review”].)

Without the inclusion of the past, present, and probable future projects in the cumulative impact analysis of GHG emissions, the cumulative impacts analysis is wholly deficient. (CEQA Guidelines § 15130(b).) At the February Evidentiary Hearing, Mr. Layton admitted that the cumulative impacts analysis does not calculate the effect of GHG emissions from all past, present, and future projects. Specifically, he stated that the analysis did not include the GHG emissions from any of the power plants that have already been licensed by the CEC, the nearly 7,000 megawatts of proposed power plant projects that are currently in licensing proceedings, nor any of the fossil fuel power projects that came online between 2001 and 2009. (Tr. at 259:11-261:16.) The following question and answer summarize his response: “Mr. Rostov: [D]id the cumulative impacts analysis calculate the GHG emissions from all these past, present, and future projects we just described in addition to the CECP total amount of carbon equivalent emissions and determine how that would affect climate? Mr. Layton: We did not.” (Tr. at 261:10-16.)

Completely ignoring the effects of greenhouse gas emissions from all of the other fossil fuel-generated power in California and the Western Grid understates the significance of the cumulative impacts of a growing electric system and impedes meaningful consideration by the public and decisionmakers. Although Staff recognizes that there is “general scientific consensus that climate change is occurring and that human activity contributes in some measure (perhaps substantially) to that change” (Exh. 220 at 4.1-103), Staff fails to analyze or even acknowledge how the Project’s greenhouse gas emissions impact global warming. In contrast, ARB staff unequivocally states that

[t]here is a scientific consensus that human activities, chief among them the burning of fossil fuels, profoundly affect the world’s climate by increasing the atmospheric concentration of GHG beyond natural levels. Contributing additional GHG pollution to the atmosphere leads

to higher global average temperatures, changes to climate, and adverse environmental impacts here in California and around the world.

(Exh. 627 at 3; *see also* Exh. 622, California Climate Change Center, *Our Changing Climate: Assessing the Risks to California* (July 2006) [summary of global warming impacts California is expected to experience under a range of greenhouse gas emission scenarios]; *see supra* I.A.) Staff's testimony further illustrates the lack of analysis that occurred. Mr. Layton emphasized "as I've said several times, we did not do an analysis of climate change, we did an analysis of project emissions and its effect on greenhouse gas emissions." (Tr. at 261:16-21.)⁶

Here, the FSA not only fails to *analyze* the cumulative effects of related past, present, and reasonable foreseeable future projects, it does not even *disclose* that such other projects exist. This is a fatal mistake given that climate change is the classic example of a cumulative problem. (*CBD v. NHTSA*, 538 F.3d at 1217 [the impact of greenhouse gas emissions on climate change must be studied in a cumulative impacts analysis].) "One of the most important environmental lessons that has been learned is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact."

(*Communities for a Better Env't v. California Resources Agency* (2002) 103 Cal.App.4th 98, 114.) Emissions from numerous sources combine to create the most pressing environmental and societal problem of our time. (*See Mass. v. EPA*, 549 U.S. 497, 521 (2007) ["harms associated with climate change are serious and well recognized"]; Health & Safety Code § 38501(a) [California Legislature declaring that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California."].)

The FSA's GHG section does not describe the GHG emissions already occurring from existing power generation in the Western Grid. It also does not include a discussion of the GHG

⁶ Contrary to the requirements of CEQA, Applicant also argues that the climate science should not be considered in the context of a particular siting case. (Tr. at 238:18-22.)

emissions already occurring from other sources, such as vehicle emissions. Instead, Staff relies on the efficiency of CECP and the economic dispatch order as substitutes for the required cumulative impacts analysis. Much of the argument the FSA makes is that a minimal amount of efficient natural gas plants will likely be needed to support a high renewable energy grid. While this theory may be true, without knowing how many other natural gas and other fossil fuel plants are already built or licensed or where these plants should be located to provide this support, the public and decisionmakers cannot accurately balance the need for the CECP against the harms that will come from the addition of 846,000 tons of greenhouse gases to the already overburdened atmosphere. To conclude that CECP will result in no significant cumulative impact without analysis of past, present, and future projects and their cumulative effect on global warming is arbitrary and capricious.

D. Permitting New Power Plants on the Assumption That Those Plants Are More Efficient than the Fleet Average is Fatally Flawed.

Staff improperly bases its CEQA analysis on the fact that the Project will be more efficient than the current average heat rate of power plants in the Western United States and assumes that the Project will always displace less efficient energy production. (Exh. 220 at 4.1-110, 112, and 118.) Staff's environmental analysis relies on the improper assumption that Staff can analyze the projected actual use of the Project rather than its capacity. (*See* Tr. at 257:13 – 258:9 [Staff explicitly states that its analysis is based on the projected energy use rather than the capacity of the plant].) This is directly contrary to CEQA, which requires the full potential to emit of a project to be studied. (*San Joaquin Raptor* 149 Cal. App. 4th at 660 [Court rejected EIR's traffic analysis based on estimated average annual production of 260,000 tons, because the project had been approved to mine up to 550,000 tons per year].) For example, in *San Joaquin Raptor*, petitioners objected to the approval of a proposed mining expansion operation, arguing, *inter alia*, that the EIR was inadequate because it had failed to adequately analyze the maximum production potential of the Project. The court agreed with Petitioners and held that even though the EIR properly included analysis of traffic given

an estimated average annual production of 260,000 tons, the EIR's analysis was not complete, because the Project included production levels as high as 550,000 tons per year. (*Id.* at 665 [“long-term impacts on road physical structures based on the reasonable potential of greater frequency or regularity of annual mine operations at or near the maximum production level of 550,000 tons per year”].) Similarly, here, the environmental analysis must study the full capacity of the Project, in addition to Staff's analysis of the projected energy use.

Staff claims that the Project will displace existing energy sources, but the record shows that at most, the Project will be responsible for explicitly displacing, i.e. closing, Units 1-3 of Encina (337 MW). (Exh. 220 at 4.1-112.) Staff's claim that CECP will displace energy from old once through cooling plants, other than existing Encina Units 1, 2, and 3, is misplaced and in any case is unquantified and not guaranteed. The California ISO will still require the capacity of every other once through cooling unit shut down to be replaced. (Exh. 220 at 4.1-111.) While Staff alleges that the CECP will help integrate renewable resources into the California supply mix, it cannot identify how much, what type, or where these renewable resources will be integrated, and Staff witnesses admitted in oral testimony that no analysis was actually done as to whether the CECP is in fact critical for integration of renewables. (Tr. at 303-4 and 311:15-18.) Staff also asserts that CECP will allow the displacement of high-GHG coal imports into California, but then admits that not only will the displacement of coal imports not deter continued operation of the coal plants (Tr. at 267:24-268:3), but that the displaced capacity must still be replaced in the California utilities' portfolios with additional generation. (Tr. at 269:15-25.) So these coal plants can keep running and emitting GHGs while CECP and other new plants are also running.

The proposition that the new fossil fuel commitments resulting from CECP displace on a one-for-one basis existing higher carbon-intensive energy supply has already been rejected under analogous circumstances. In *Center for Biological Diversity v. City of Desert Hot Springs*, RIC

464585, Riv. Sup. Ct. (Aug. 8, 2008), the trial court rejected an EIR's assertion that a residential and commercial development would have a "beneficial impact on CO₂ emissions" because California homes are more efficient than those elsewhere in the country absent any showing that existing homes would be demolished or remain unoccupied. Similarly, absent any showing that aging power plants are actually decommissioned as a direct consequence of the Project and that additional fossil fuel generation is not built to replace it, there is no basis for Staff's conclusion. In fact, here the Applicant admitted that it has made no commitment even to ensure that the greenhouse gas emissions from the Project will be offset. (Tr. at 357:10-17.)

Alternatively, even if we were to accept the Staff's claim that CECP is more efficient than the statewide average heat rate, the Project is designed to meet future growth. The FSA states "[t]his project would enhance power supply reliability in the California electricity market by **meeting the state's growing energy demand**, contributing to electricity reserves in the region, and providing operating flexibility (that is, the ability to start up, shut down, turn down, and provide load following and spinning reserve)." (Exh. 200 at 5.4-7 [emphasis added].) In contrast, the purported Western Grid baseline assumes that there will not be an increase in energy demand, which would require CECP to operate in addition to other less efficient plants, rather than in place of those plants. Indeed, if new growth did not contribute to global warming, atmospheric concentrations of greenhouse gases would be stable and not projected to rapidly increase. (*See CBD v. NHTSA*, 508 F.3d at 549, 556 [finding that new efficiency standards only decrease the rate of emissions growth but do not result in a net reduction in total emissions].)

Moreover, there is no analysis of how the project will affect the energy system over the thirty-year lifetime of the project. CEQA requires analysis of impacts over the life of the project, not one particular instant. "Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term

effects.” (CEQA Guidelines § 15126.2(a).) Even if the Project operates at an average efficiency greater than the plants on the current grid, there is no analysis of whether building this new source of greenhouse gases will comply with AB 32 and the state of California’s goal of eighty percent reduction of GHGs by 2050. (Tr. at. 190:11-20.) Permitting this plant creates additional fossil fuel infrastructure for decades.

E. Alternatively, Even Assuming Staff Used the Proper Baseline, the Lack of Significance Finding Still Fails to Conform with the Requirements of CEQA.

Staff turns CEQA requirements on their head by using the baseline to skip over the entire first step of determining the significance of the project’s environmental effects, because the environmental analysis improperly combines the mitigation analysis into significance determination. CEQA requires Staff to first assess the significance of the Project’s greenhouse gas emissions and then assess how that effect can be lessened or avoided through mitigation. (Pub. Res. Code § 21061.) The EIR must provide “detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project.” (*Id.*; Compare CEQA Guidelines § 15126.2 [consideration and discussion of significant environmental impacts] with CEQA Guidelines § 15126.4 [consideration and discussion of mitigation measures proposed to minimize significant effects].)

Staff in effect argues that any greenhouse gas emissions from the project will be mitigated to less than significant through the “economic dispatch theory” since CECP will be connected to the Western Grid, and thus no significance assessment is needed. This argument is illogical, and violates CEQA’s procedural requirements. CEQA requires an evaluation of the significance of the environmental effect of CECP, not of the entire Western Grid. (*See* Sec. II.B.1(a) and (b).) Staff improperly combines the speculative potential reductions of other plants reducing production through the economic dispatch theory into the environmental significance assessment. Because of

this, there is no commitment by the Applicant that the result of the Project's operation will be a net reduction of greenhouse gases as the Staff claims, and no guarantee that the Project will not have a significant impact on the environment. (Tr. at 357:10-17; *See, e.g., Woodward Park*, 150 Cal.App.4th at 707 [where EIR addresses only a portion of a project's environmental impacts, the EIR "would necessarily lack consideration of mitigation measures for the omitted portion of the project's impact"].)

By failing to analyze the significance of greenhouse gas emissions from the Project, Staff fails to consider feasible mitigation and alternatives to the greenhouse gas emissions. The Commission may not certify the Project unless it specifically finds either (1) that changes or alterations have been incorporated into the Project that "mitigate or avoid" any significant effect on the environment, or (2) that mitigation measures or alternatives to lessen these impacts are infeasible, and specific overriding benefits of the Project outweigh its significant environmental effects. (Pub. Res. Code § 21081(a); 20 Cal. Code Regs. § 1755.) Where a project's greenhouse gas impacts are significant, "[t]he lead agency must impose all [feasible] mitigation measures that are necessary to reduce GHG emissions to a less than significant level," according to OPR. (Exh. 626 at 7.) The environmental analysis is inadequate because it fails to require any mitigations or alternatives that would lessen the Project's greenhouse gas emissions. If Staff is so convinced that the Project will result in an overall decrease in greenhouse gases in the Western United States, it should have made this mitigation mandatory.

III. The Alternatives Analysis Does Not Comply with CEQA, Because Staff Fails to Adequately Consider a Renewable Generation Alternative.

Staff performed an insufficient alternatives analysis in violation of CEQA. The alternatives analysis is improper because Staff unreasonably dismissed renewable resource alternatives without proper justification. Staff's failure to find the greenhouse gas emissions significant undermines the alternatives analysis because Staff has failed to identify the true environmental impacts of the

project. Despite State mandates to increase the role of renewables in California's energy supply mix, the FSA spends just three and a half pages vaguely discussing renewable generation alternatives to the CECP—the majority of the discussion focused on trying to undermine the fact that San Diego's electricity needs could be met via the area's admittedly huge (nearly 4,700 MW by 2020) solar PV technical potential—and concludes by simply agreeing with the Applicant's unsurprising conclusion that a natural gas fired power plant is the only feasible option for meeting the project's objectives. (Exh. 200 at 6-15-6-18.)

Under CEQA, the Commission may not approve CECP if there are feasible alternatives that would avoid or lessen its significant environmental impacts. (Pub. Res. Code §§ 21002, 21002.1(b).) To this end, the FSA is required to consider a range of potentially feasible alternatives to a project that would feasibly attain most of the project's basic objectives while avoiding or substantially lessening any of the project's significant environmental impacts. (*Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1456.) The discussion of alternatives must be sufficiently detailed to foster informed decision making and public participation, and cannot be simply vague and conclusory. (*Id.* at pp. 1456, 1460.) Analysis of alternative technologies that could meet most of this Project's key objectives is therefore required here. This analysis, moreover, must include a quantitative, comparative analysis grounded in substantial information concerning the relative benefits of solar and fossil-fired alternatives. (*Cf. Kings County*, 221 Cal.App.3d at 733-37.)

Staff fails to analyze a range of reasonable alternatives, and further analysis of alternatives is required. Most notably, Staff failed to fully analyze any alternatives that would avoid conflicts with existing state laws requiring SDG&E to meet a twenty percent renewables target by 2010 and the AB 32 renewable target of thirty-three percent while it is currently only at six point one percent. (Exh. 625.) Staff needs to be realistic in terms of its obligations under state laws. If California is ever to make significant progress toward its renewable energy and greenhouse gas reduction goals,

responsible state agencies (and energy providers themselves) must begin to analyze available alternatives to fossil-fired generation in a serious and consistent manner. This analysis should happen not only at the statewide policy level, but also at the project level, as required by CEQA. If SDG&E is to meet the statutory mandate, investments in new generation infrastructure must be in renewable technologies.

However, with virtually no analysis, Staff rejects renewable resource alternatives as infeasible based on the allegation that they do not meet all of the project objectives. (Exh. 200 at 6-18.) However, nothing in CEQA states that an alternative may be found infeasible solely due to a conflict with one of the applicant's objectives. The statutory definition of "feasible" does not even mention the applicant's objectives. (Pub. Res. Code § 21061.1.) In fact, the CEQA Guidelines expressly provide that a feasible alternative may *impede* achievement of those objectives to some degree. (See CEQA Guidelines § 15126.6(a), (b).)

As such, the fact that the renewable resource alternatives may not completely satisfy all of the Applicant's stated objectives does not render it infeasible. The CEC's primary objective is to provide a reliable source of electrical generation to an energy-dependent region of California. (Exh. 200 at 6-3.) An additional natural gas plant is not the only alternative that can meet this primary objective, and other alternatives should not be rejected as infeasible simply because they do not meet all project objectives. For example, a renewable resource alternative would avoid or lessen the environmental impacts of the project while still meeting the primary project objective, as well as most of the other basic objectives of the project. Increased renewable generation could still reduce or eliminate the local capacity requirement (*see* Tr. At 166:18-22), allow retirement of older once through cooling plants, allow the retirement of existing EPS Units 1, 2, and 3 and the eventual retirement of Units 4 and 5, and help modernize the existing aging electrical generation infrastructure with clean, renewable energy technologies.

The evidence of record does not support a finding that renewable resource alternatives are infeasible. CEQA requires that the FSA uncover and disclose “meaningful information” about these alternatives. (*Save Round Valley Alliance, supra*, 157 Cal.App.4th at p. 1460.) The FSA’s conclusory assertions that Staff looked into some renewable resource strategies, but decided they were incapable of meeting the project’s stated objectives will not suffice. To comply with its CEQA obligations, further analysis of renewable technologies is required.

First, the FSA deems renewable technologies like solar and wind impractical and too complex because they “require large land areas in order to generate electricity.” (Exh. 200 at 6-16.) Staff also quickly dismisses the possibility of mounting solar panels on existing buildings because such technology would require “about 4 acres per MW.” (Exh. 200 at 6-16.) Staff therefore concludes that “the need for extensive acreage would add to the complexities of local discretionary actions for land use modifications and likely result in significant land disruptions and conversion impacts.” (Exh. 200 at 6-16.)

However, as Tam Hunt explained in his written testimony, the CEC rejected as inadequate a very similar Staff conclusion regarding the potential of solar PV in the Chula Vista Energy Upgrade Project, stating:

Bill Powers, P.E., an engineer with over 25 years of experience in the energy field, testified that it may be feasible to install PV on rooftops and over parking lots in a quantity sufficient to meet or exceed the project’s incremental increase in output. (Ex. 616, pp. 11-14.) According to the FSA, rooftop PV would consume 4 acres per MW and for that reason is infeasible. (Ex. 200, p. 6-13.) We are unpersuaded by this evidence. Photovoltaic arrays mounted on existing flat warehouse roofs or on top of vehicle shelters in parking lots do not consume any acreage. The warehouses and parking lots continue to perform those functions with the PV in place. (Ex. 616, p. 11.) Mr. Powers provided detailed analysis of the costs of such PV, concluding that there was little or no difference between the cost of energy provided by a project such as the CVEUP compared with the cost of energy provided by PV. (Ex. 616, pp. 13-14.) In addition, while PV is not a quick-start technology which can be dispatched on ten minutes’ notice any time of the day or night, PV does provide power at a time when demand is likely to be high—on hot, sunny days. Mr. Powers acknowledged on cross-examination that the solar peak does not match the demand peak, but testified that storage technologies exist which

could be used to manage this. The essential points in Mr. Powers' testimony about the costs and practicality of PV were uncontroverted.

(Exh. 645 at 15, citing Exh. 643 at 29-30.)

Indeed, the FSA admits that the technical potential for rooftop solar in San Diego—as much as 4,700 MW by 2020—is more than sufficient to meet the area's peak energy needs. (Exh. 200 at 6-16, citing Anders & Bialek study, Exh. 215.) Additionally, Staff's witness from California ISO, Mr. McIntosh, admitted that solar follows California's load period very well. (Tr. at 163:9-10) The Anders report Staff cites for its estimation of solar PV technical potential also shows that if just ten percent of that potential is realized by 2020, it would provide 469 MW of capacity for San Diego. (Exh. 215 at 3-4.) And neither the Anders study nor Staff's alternatives analysis includes consideration of the technical potential for solar PV on parking lots and parking structures in the San Diego area, which is estimated to be roughly 3,000 additional MW (Exh. 632 at 31), let alone the potential from other alternative generation resources such as wind, geothermal, biomass, and combined heat & power. Staff admits in oral testimony that it did not consider the potential from any of these alternatives. (Tr. at 401-402.) This is also apparent when reading the three-page analysis in the FSA.

Altogether, even a small fraction of the potential capacity from rooftop solar is greater than the 467 MW of local capacity Staff claims is required in the San Diego region *if* the South Bay power plant and the entire existing Encina plant (960 MW) are retired (and if the 2009 IEPR's reduced demand forecast of about 145 MW in the San Diego area is ignored). (Exh. 203 at 7-8.) However, since the retirement of Units 4 and 5 is not part of the project (Exh. 220 at 4.1-114.) even Staff's assumption about the capacity requirement for San Diego is flawed. Without the retirement of Units 4 and 5, the San Diego area actually has a capacity surplus of at least 156 MW (more if the reduced demand forecast is factored in), even if Units 1, 2, and 3 were permanently shut down. (Exh. 203 at 7-8.) This undermines Staff's conclusion that the project is necessary 1) for local

capacity requirements, 2) for the retirement of the South Bay power plant and Units 1, 2, and 3 at the Encina plant, and 3) that renewable generation alternatives couldn't fulfill the primary objective of the Project. (See Exh. at 6-15-6-18)

Despite its massive potential, Staff fails to fully analyze distribution-level solar. Instead, Staff dismisses it as infeasible following a limited and pessimistic assessment of a delayed SDG&E Solar Project and just two state solar programs (the California Solar Initiative and New Solar Homes Partnership), which Staff claims indicate poor market potential for solar PV. (Exh. 200 at 6-16.) However, the performance of these programs cannot be assumed to determine the capability of the solar industry as a whole to build out large-scale distributed generation solar PV projects in California. As Mr. Hunt suggests in his written testimony, significant distributed solar PV capacity will come about through agreements between project developers and utilities – such as the 500 MW solar PV program for which Southern California Edison recently received CPUC approval, and other similar programs. (Exh. 645 at 14.)

Additionally, Staff's analysis of renewable generation says that natural gas generation is needed due to the intermittent nature of solar and wind generation and in order to facilitate the integration of renewables, though no data are provided to show how this particular project will meet those needs. As stated above, as well as in Mr. Hunt's written testimony, solar follows California's load period very well and helps substantially reduce local peak demand, with maximum power generation occurring in mid-afternoon in the summer and fall. (Exh. 645 at 13.) Furthermore, as Mr. Hunt explains:

[W]ind and solar power are projected to provide about 60,000 gigawatt hours by 2020, or about 20% of the total system power, if the 33% by 2020 mandate is met. This will not all be variable generation, however, as significant energy storage projects are underway in conjunction with major wind and solar power projects. For example, both Southern California Edison and PG&E are planning to build energy storage projects pursuant to state and federal funding. PG&E received funds for a 300 megawatt "compressed air energy storage" project using salt formations near Bakersfield. Edison was awarded funds for an 8

megawatt lithium ion battery demonstration project. Other companies, such as Solar Reserve, plan to include molten salt thermal storage facilities with their solar thermal power projects. Solar Reserve claims such storage facilities more than pay for themselves because they allow load shifting and sale of reliable power during peak demand times. Solar Reserve signed a contract with PG&E in December of 2009 for a 150 megawatt facility near Blythe, California, which will include storage. This contract will require CPUC approval before it is finalized.

Moreover, as the Western Interconnect builds wind and solar resources throughout its geographic extent, variable resources need less balancing generation than would be the case if all facilities were located in the same area. This is known as “geographic dispersion” and results from the fact that the sun shines and the wind blows at different times throughout the Western Interconnect. The IEA report cited above highlights geographic dispersion as a potent tool for reducing net variability of wind and solar resources.

(Exh. 645 at 7-8.)

Staff’s rejection of renewable generation alternatives is based on speculation and outdated assumptions rather than evidence. Despite its obligation, the FSA dismissively concludes that demand reduction and renewable generation alternatives are infeasible. In violation of CEQA, the FSA fails to provide meaningful information regarding renewable energy alternatives that would result in substantially fewer greenhouse gas emissions.

IV. Alternatively, if an Override Is Necessary, the Permit Must Be Denied Because an Override Pursuant to Public Resources Code Section 25525 Is Not Supported by the Evidence in the Record.

The Commission cannot justify an override for this Project.⁷ The certification of a project that does not conform with applicable LORS is constrained by the language of Public Resource Code Section 25525. This provision allows certification “if the commission determines that the facility is required for public convenience and necessity and that there are not more prudent and feasible means of achieving public convenience and necessity.” (*Id.*)

Here, public convenience and necessity do not support building the Project at the proposed site. Staff’s testimony shows that for electrical purposes the location simply must be in the San

Diego reliability area, not specifically in Carlsbad at the location of the Encina power plant. (Tr. at 325:17-22.) In fact, expert testimony shows that a decision on this Project is premature, because the ISO has not even identified the locations that will optimize the integration of the thirty-three percent renewables. (Tr. at 226:10-12.) There is no showing that this specific project and location will contribute to putting California on a trajectory to a low-carbon future. In fact, the evidence shows that the Project will emit hundreds of thousands of new emissions of greenhouse gases. A rigorous analysis of project alternatives, i.e. “more prudent and feasible means of achieving public convenience and necessity” would inform whether there was a better project and whether the project was “needed.” However, here, the environmental analysis did not consider an alternative that explicitly considers the energy sources that eliminate or reduce the need for greenhouse gas emissions from the Project. (*See* Sec. III *supra*).

CONCLUSION

The Center respectfully requests that the Commission find that the environmental analysis fails to meet the requirements of CEQA and is inadequate. Specifically, the Commission should make the following conclusions and findings:

1. The Project Description is defective because it fails to consider the use of regasified LNG as part of the project.
 - a) The use of LNG is reasonably foreseeable.
 - b) The use of LNG increases the amount of greenhouse gases that will be emitted by the project by up to twenty-five percent.
 - c) The increased greenhouse gas emissions from the use of LNG were improperly excluded from the environmental analysis.

⁷ The City of Carlsbad and other Intervenors address the issues related to the necessity of an override. This argument assumes an override is necessary.

2. Staff's analysis of the greenhouse gas emissions from the project fails to meet the requirements of CEQA.
 - a) The Project may result in the emission of 846,076 tons of CO₂E annually and the construction of the project will result in an additional 4,686 tons of CO₂E. The Project will also result in greenhouse gas emissions from the use of LNG. Cumulatively, all of these emissions constitute a significant impact.
 - b) The baseline for the greenhouse gas emissions is the Project itself.
 - c) Using the Western Electric Grid as the greenhouse gas emissions baseline fails to inform the public and decisionmakers of the significant impact of the project.
 - d) The Western Electric Grid is an improper environmental baseline for analyzing the emission of greenhouse gases from the Project.
 - e) Applicant's and Staff's conclusion that the project will cause a net reduction in GHG's is not supported by substantial evidence.
 - f) The Project does not comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.
 - g) The cumulative impacts analysis for greenhouse gas emissions is inadequate.
 - h) The cumulative impacts analysis fails to account for the greenhouse gas emissions of all past, present, and probable future projects.
 - i) Permitting new power plants on the assumption that those plants are more efficient than the fleet average does not comply with CEQA.
 - j) The environmental analysis fails to consider long-term impacts of the Project's greenhouse gas emissions.

- k) The mitigation of greenhouse gases was not properly analyzed because the emission of more than 846,000 tons of greenhouse gases was not considered significant. Thus, the environmental analysis does not analyze the feasibility of greenhouse gas mitigations.
3. The environmental analysis fails to analyze alternatives to the significant emissions of greenhouse gases from the Project.
 4. The alternatives analysis does not comply with CEQA, because Staff fails to adequately consider a renewable generation alternative.
 5. A reasonable range of project alternatives has not been evaluated.
 6. The permit must be rejected because an override pursuant to Public Resources Code Section 25525 is not supported by the evidence in the record.

DATED: August 18, 2010



William B. Rostov
Earthjustice
Attorney for Center for Biological Diversity



**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
aggert@energy.state.ca.us

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

Mike Monasmith
Siting Project Manager
mmonasmi@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, Jessie Baird, declare that on August 18, 2010, I served and filed copies of the attached Center for Biological Diversity's Opening Brief, dated August 18, 2010. 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)

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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);

OR

- depositing in the mail an original and 12 paper copies, as follows:

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.


