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

Petition to Amend The Carlsbad Energy Center Docket Number 07-AFC-06C

INTERVENOR ROBERT SARVEY'S PETETION FOR RECONSIDERATION

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I. <u>INTRODUCTION</u>

Intervenor Robert Sarvey hereby submits this timely filed request for reconsideration of the Energy Commission approval of the ACECP. Requests for reconsideration are governed under Section 1720 of the Rules of Practice and procedure which prescribes that, "Within 30 days after a decision or order is final, the Commission may on its own motion order, or any party may petition for, reconsideration thereof. A petition for reconsideration must specifically set forth either: 1) new evidence that despite the diligence of the moving party could not have been produced during evidentiary hearings on the case; or 2) an error in fact or change or error of law. The petition must fully explain why the matters set forth could not have been considered during the evidentiary hearings, and their effects upon a substantive element of the decision."

The Commission's Decision to approve the ACECP fails to consider feasible technology that would reduce carbon and criteria pollutant emissions in violation of CEQA. The decision approves a 632 MW project when the applicant intends to build only a 527.5 MW project. The decision fails to provide meaningful responses to environmental issues raised in the proceeding by myself and others in violation of the CEQA Guidelines Section 15088. The decisions override findings lack evidentiary support and the decision fails to adopt the environmentally superior alternative.

II. Installation of Clutch Technology.

The evidentiary hearings in this proceeding concluded on April 2, 2015. On June 2, 2015 two months after the close of the hearings the Committee docketed into the record of the proceeding Exhibit 501 which is CPUC Decision 15-05-051.¹ D. 15-05-051 states on Page 21, "Lastly, the Commission has become aware of the potential for the proposed LMS-100 units to provide even greater benefits through the addition of a clutch inserted between the turbine and the generator unit, which would allow the unit to operate in synchronous condenser mode (without the burning of fuel) when positive MW output is not required. This minor modification could offer valuable VAR support in an area of the grid that otherwise requires it. Therefore, we

¹ TN 204830, On April 6, 2015 four days after the close of the evidentiary hearings I docketed the alternate decision of President Picker which first introduced the requirement to examine the clutch technology. (TN 204066) The proposed Decision became D. 15-05-051 without modification.

direct SDG&E to evaluate the feasibility and cost-effectiveness of this clutch technology." The requirement to analyze the clutch technology for the ACECP was not an issue that could have been addressed in the evidentiary hearings as it is a new requirement for the ACECP imposed by the CPUC.

The clutch technology provides valuable benefits to the grid by supplying reactive power without GHG or criteria pollutant emissions and must be a part of the alternatives and GHG emissions analysis for this amendment. The clutch technology will provide additional flexibility for the ACECP and allow it to provide VAR support to the grid without operation of the turbines eliminating the need for other generating units to be online to provide VAR support. Early planning and understanding of future reactive power needs is essential in order to cost effectively take advantage of the potential opportunities of using peaking generators as synchronous condensers. As Commissioner Hochschild accurately stated, *"So this is essentially a feature that can be added at the time of construction that costs between a million and \$5 million to install. But it allows the state to enjoy all of these ancillary services: voltage support and short-circuit strength and inertia without the turbine operating and creating emissions, okay? And if we fail to include this technology, it has to be retrofitted in later. That's in the order of \$50 million right, much more expensive."²*

The now retired nuclear power plant in San Onofre provided 1100 MVars of reactive power to the grid but its closure eliminated a large source of reactive power in SCE and SDG&E's service territory. Its closure forced CAISO to enter into an RMR contract with AES to convert Huntington Beach units 3 and 4 into synchronous condensers. As the ACECP Commission Decision states, "*In 2013, the need for EPS to generate was reduced by the installation of synchronous condensers at Huntington Beach Generating Station and the start of operations at Sunrise Power Link.*"³ Huntington Beach synchronous condensers are schedule to be retired in 2017.

A. The Clutch Technology is feasible for the LMS-100

The use of the clutch technology is certainly feasible. The SSS clutch company has provided its clutch technology throughout the world for many, many years. SSS clutches have

² July 30 2015 Business Meeting Transcript Page 72 of 100 Lines 8-16

³ Final Decision pages 94 and 95 of 350

been utilized with LM-6000 units since 2000.⁴ The clutch technology has been successfully utilized in four different LMS-100 installations.⁵ LADWP has chosen to install clutch technology in both of their most recent LMS-100 installations.⁶

The SSS clutch company utilizes the 272 SSS Encased Clutch for the LMS-100 installations. A copy of the specifications for the 272T SSS Encased clutch is included as exhibit 3 in this petition.⁷

 B. One of the main purposes of CEQA is to identify, and require the implementation of, feasible alternatives or measures that would mitigate (reduce or avoid) a proposed project's adverse environmental impacts.

CEQA requires the implementation of feasible alternatives or mitigation measures which would reduce or avoid a projects adverse environmental impact. The clutch technology would reduce the projects and the electrical systems GHG impacts and would also lower criteria pollutant emissions and minimize natural gas consumption. The technology would lower GHG emissions system wide by providing reactive power without using additional natural gas fired generation.

Commissioner Hochschild attempted to raise the threshold environmental issue of the clutch technology at his only opportunity the July 30, 2015 Commission business meeting.⁸ When asked by Chairman Weisenemiller Mr. Kramer tried to portray that the clutch technology had never been raised by parties in the proceeding before the July 30th Commission Business meeting. As the transcript reports:

21 (Weisenmiller)I think the first area where we're looking for
22 more comment -- and I'll start first with a factual one, to
23 Mr. Kramer. In public comment today the Sierra Club -24 excuse me, the NRDC -- raised the question of putting in
25 clutch technology. Is there anything in this record
1 dealing with that issue?
2 MR. KRAMER: The only mention is in the Public

⁴ 07-AFC-06 C Reconsideration Exhibit 1

⁵ 07-AFC-06 C Reconsideration Exhibit 2

⁶ <u>http://www.powermag.com/ladwp-harnesses-lms100-to-solve-once-through-cooling-dilemma/?pagenum=3n</u>

⁷ 07-AFC-06C Reconsideration Exhibit 3

⁸ And this is the only opportunity -- I was not on this Committee -- it's the only opportunity I have to address this. And so I just want the message you should receive today, from me, is this is a threshold issue. (July 30 Commission Business Meeting Page 75 LINES 9-12)

3 Utility Commission Order approving the 500 megawatt PPTA
4 where, as I recall, they asked the proponents to
5 investigate where that would be appropriate to include a
6 clutch in the system. And the Committee did take official
7 notice of that decision, so it's a part of the record.⁹

Commissioner Douglas also pretended that the business meeting was the first time the clutch technology issue had even been raised :

2"We certainly could have benefitted, and anyone 3 can benefit, from additional information and additional 4 ideas brought into the record at the right time. And the 5 day of Adoption Hearing not necessarily that although if 6 that's the day it comes in we will listen to it and we will 7 do our best with it.¹⁰

The committee actually had several opportunities to examine the clutch technology issue during the course of the proceeding but failed to do so. On April 6, 2015 four days after the close of the evidentiary hearings I docketed the alternate decision of President Picker which first introduced the requirement to examine the clutch technology. (TN 204066).¹¹ On April 14th Intervenor Simpson submitted a motion to (A) require the Project Owner to submit a petition to modify its application for certification of the Carlsbad Energy Center Project in light of the recent proposed and alternate decisions under consideration before the California Public Utilities Commission, and (B) delay the issuance of a proposed decision in this proceeding until the aforementioned petition to modify has received full consideration from this Commission.¹² On May 21, 2015 the CPUC issued D. 15-05-051 which required analysis of the clutch technology.¹³ On June 2, 2015 the Committee docketed the CPUC decision D. 15-05-051 requiring analysis of the clutch technology.¹⁴

On June 3, 2015 in response to the committee's docketing of D. 15-05-051 Intervenor Simpson filed another motion to amend the project based on the May 21 decision at the CPUC.

⁹ July 30, 2015 Commission Business Meeting Page 66 Lines 24,25 and Page 67 Lines 1-7

¹⁰ July 30, 2015 Commission Business Meeting Page 80 Lines 2-7

 $^{^{\}rm 11}$ A. 14-07-009 Alternate Decision of President Picker Page 25 of 41

¹² TN 204185 Page 5

¹³ docs.cpuc.ca.gov/PublishedDocs/Published/G000/M152/K058/152058431.PDF

¹⁴ TN 204830

Mr. Simpson specifically requested that the project amendment address "an entirely different technology which included a <u>"synchronous condenser".</u>¹⁵ On June 10, 2015 the Committee denied Mr. Simpsons motion to require amendment of the project specifically denying any analysis of the synchronous condenser modification and made the following findings:

4. Simpson Motion 2 describes the CPUC decision approving the 500 MW PPTA as requiring "an entirely different technology which included a 'synchronous condenser." It asserts that the amended CECP will "never get built" as proposed and that the Energy Commission should not approve the amended CECP or any further amendments until it is reimbursed for its full costs of processing them.¹⁶

5. Simpson Motion 2 mischaracterizes the CPUC decision, which provides: "Lastly, the Commission [CPUC] has become aware of the potential for the proposed LMS-100 units to provide even greater benefits through the addition of a clutch inserted between the turbine and the generator unit, which would allow the unit to operate in synchronous condenser mode (without the burning of fuel) when positive MW output is not required. This minor modification could offer valuable VAR support in an area of the grid that otherwise requires it. Therefore, we direct SDG&E to evaluate the feasibility and cost-effectiveness of this clutch technology."7 This is not an "entirely different technology," but simply the possible insertion of a part (clutch) between the already proposed turbine and generator unit. The CPUC is not requiring its addition, only that it be evaluated. The CPUC itself characterizes it as a "minor modification."¹⁷

On June 1, 2015 I filed a motion to, "Allow Testimony and Briefing on D. 15-05-05."¹⁸ I provided several documents proposed as exhibits on June 9, 2015 containing references to the proposed clutch technology.¹⁹ The committee denied the motion to examine the effect of D. 15-05-051 on the PMPD on July 20th 2015.²⁰

The committee's misrepresentation at the July 30, 2015 business meeting that the clutch issue had never been raised during the proceeding was persuasive enough to convince two other commissioners that the ACECP should be approved at the July 30, 2015 business meeting

¹⁵ TN 204877

¹⁶ TN 204969 Page 1,2

¹⁷ TN 204969 Page 2

¹⁸ TN 205208

¹⁹ Exhibit 6020 TN 205300 Page 8, Exhibit 6022 TN 205302 Pages 11,12,

²⁰ TN 205440

without consideration of the clutch technology.²¹ It is a violation of CEQA to not consider feasible alternatives that would lessen the projects significant air quality impacts.

III. <u>NRG has informed the CPUC Commissioners they intend to construct only 5 turbines</u> <u>at the project site not six.</u>

The final decision for the ACECP states that, "Interveners Sarvey and Simpson argue for a reduction in capacity to align the project to the size approved for a PPTA between the project owner and SDG&E." The final decision refuses to reduce the project size based on representations by the applicant's attorney stating that, "The project owner says that it intends to construct all six turbines whether or not they are all contracted to serve SDG&E.²²

As stated in my comments on the PMPD the applicant has provided no sworn statements under oath that they would construct all six turbines. In fact on May 19, 2015 at an all-party meeting at the CPUC Carlsbad Energy's attorney Lisa Cottle told all five CPUC Commissioners that NRG would build only five turbines not six. NRG president John Chellimi was seated next to her. See Exhibit 4 the Testimony of Robert Sarvey.²³ All the sworn evidence in the record supports the authorization of five turbines for the ACECP not six. Only the applicant's non-sworn representations by their attorney support a six turbine configuration. The final decision authorizes the wrong project and concludes that the applicant will construct a 633 MW facility a clear error of fact in the decision.

IV. <u>The Final Decision fails to address significant environmental issues raised</u> <u>during the proceeding.</u>

CEQA Guidelines Section 15088 (a) states, "The lead agency shall evaluate comments on environmental issues received from persons who reviewed the draft EIR and shall prepare a written response. The Lead Agency shall respond to comments received during the noticed

²¹ Weisenmiller: And I would I certainly

⁶ encourage NREC, which is a very sophisticated intervenor,

⁷ in the future, to raise this in the evidentiary hearings

⁸ with technical testimony, not public comment on the last

⁹ day. I mean, that's the reality we're faced with. (July 31, 2015 Commission Business Meeting Page 76 Lines 5-9)

²² Final Decision Page 36 of 350 04/02/2015 RT 158:1-161:21; TN 204359, Project Owner's Post-Evidentiary Hearing Brief, pp. 17 – 18.

²³ 07-AFC-06C Reconsideration Exhibit 4

comment period and any extensions and may respond to late comments". The purpose of the response to comments is to address the significant environmental issues raised by each comment. Specifically Section 15088 (c) requires that, "*The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections*). In particular, the major environmental issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice." The final decision never discusses much less provides detailed reasons why specific comments and suggestions I raised during the proceeding were not accepted.

A. Energy Efficiency

The PMPD fails to acknowledge much less address the Energy Efficiency arguments outlined in my testimony, briefing, and comments on the PMPD. As detailed in my comments on the PMPD,

"The evidence demonstrates that the amended CECP could create significant adverse impacts on energy resources if alternatives could reduce the project's use of fuel.²⁴ CEC staff did not conclude that there was a significant impact to energy resources in the FSA because the staff concluded that alternative resources were not available to meet the LCR needs in SDG&E's service territory.²⁵ It is clear that now that preferred resources and storage will make up a minimum of 300 MW of SDG&E's 800 MW's procurement authority.²⁶ The PMPD fails to recognize the significant impact that will occur should Carlsbad Energy construct a 633 MW peaking facility when there are preferred resources that are not only available but required by CPUC proposed decisions. The PMPD needs to include this significant impact in the override

²⁴ Exhibit 2000 CECP Amendment, Final Staff Assessment Page 764 of 1111

²⁵ Exhibit 2000 CECP Amendment, Final Staff Assessment Page 765 of 1111

²⁶ Exhibit 6007, 6002 Page 2,3, Exhibit 4007 Page 36 of 38 Finding of Fact Number 7

section or declare that the reduced capacity alternative as the environmentally preferred alternative.

The evidence also shows that the reduced capacity would also, "reduce the visual impact of the site."²⁷ Utilization of preferred resources for a portion of the capacity of the amended CECP would provide reductions in GHG emissions and also comply with the states loading order. CEC Staff agrees that the reduced capacity alternative in conjunction with preferred resources would lead to a reduction in GHG emissions".²⁸

The final decision never addresses the energy resources impacts of the reduced capacity alternative in conjunction with the storage options that are available as chronicled in the evidentiary record in violation of Section 15088.²⁹ Evaluation of the reduced capacity alternative in conjunction with storage or preferred resources would lead the final decision to conclude that the ACECP has significant impacts to energy resources which must be overridden since the record evidence demonstrates that storage resources are available to meet a portion of the LCR need in SDG&E's service territory.³⁰ Exhibit 501 the CPUC decision on the ACECP PPTA confirms the fact that the project will be reduced to 500 MW and preferred resources or storage will meet the balance of the LCR need represented by the 100 MW reduction in the size of the ACECP mandated by D. 15-05-051. A 632 MW ACECP would be a significant impact to energy resources.

B. <u>The final decision fails to address environmental issues raised related to the ACECP</u> <u>operating restrictions.</u>

As the final Decision states the, "Licensed CECP Condition of Certification AQ-SC9 would not apply to the initial commissioning of the ACECP gas turbines. Instead, we impose a new Condition AQ-SC9 to require that the ACECP operate the gas turbines only between the

²⁷ Transcript of April 2, 2015 Evidentiary Hearing Page 147 Of 283 Lines 9-16

 ²⁸ Transcript of April 2, 2015 Evidentiary Hearing Page 113 of 283 Lines 19-22 "So basically if this were a smaller project, say, this was 400 megawatts and then the other 200 was renewables, wouldn't that be less GHGs? MR. VIDAVER: Yes"
 ²⁹ Exhibit 6005, 6002,4007

³⁰ Exhibit 6005, 6002,4007

hours of 0600 and 2400, except in the event of a declared emergency. This memorializes the project owner's agreement with SDG&E and the City of Carlsbad. "³¹ Further the decision states, "We amend Condition of Certification **NOISE-4** to prohibit the ACECP from operating between the hours of midnight and 6:00 a.m. unless required by (1) reliability related purposes or (2) as other required by CAISO tariff." The PMPD and the final decision ignore my arguments concerning the GHG and operating impacts of the midnight to 6 AM operating restriction on the ACECP. As stated in my PMPD comments,

"The ACECP has a major operating constraint that affects its benefit to the public as it is not allowed to operate between midnight and 6 AM due to the settlement agreement with the City of Carlsbad and NRG. Even though the project has no significant noise impacts the City of Carlsbad has insisted that the project not operate between midnight and 6 AM. The CECP has no such operating restriction. As the evidence shows at least 20 MW of generation will be needed in the Carlsbad area before the Carlsbad Desalination Project comes on line and that load is currently served by the Encina plant.20 The Carlsbad desalination plant has a 30 MW load around the clock load by itself.21 The ACECP will not be available to serve that 50 MW load between midnight and 6 AM forcing plants outside the local area to provide the needed power leading to line losses and the possibility off a less efficient plant to be brought online to serve the overnight load. The limitation on operation between midnight and 6 AM also prevents the ACECP from providing the needed generation to help mitigate the degradation of deliverability of renewable wind generation in the Imperial Valley between midnight and 6 AM.³²"

Nowhere in the final decision are these environmental issues even mentioned much less discussed which is a violation of Section 15088 of the CEQA Guidelines. Upon reconsideration

³¹ Final Decision Page 93 of 350

³² Robert Sarvey Comments on PMPD Page 7 of 37 TN 205308

the commission should eliminate the midnight to 6 AM operating restriction on the ACECP as it has the potential to increase GHG and criteria pollutant emissions and force other less efficient plants to operate.

C. <u>The decision fails to acknowledge that CAISO has testified in this proceeding that the</u> CECP is a superior technology compared to the LMS-100.

In my comments on the PMPD I describe substantial evidence in the record of the proceeding which demonstrates that the CECP is environmentally superior to the ACECP and that CAISO has touted its operating characteristics for renewable integration. The final decision fails to discuss this contradictory evidence and merely concludes that the CECP is no longer appropriate because the electricity market has changed. Neither the decision nor the evidence describes how the electricity market has changed. The record contains no testimony from CAISO that the ACECP is superior for renewable integration or grid operations. CAISO attended the April 2, 2015 evidentiary hearing and was never asked whether the ACECP was a superior replacement to the CECP to replace the generation lost by SONGS or integrate renewables. The evidence in the record of the proceeding shows that CAISO believes that the CECP is superior to the LMS-100 technology proposed for the ACECP and more than adequate for renewable integration. As stated on page 20 and 21 of my PMPD comments,

Mr. Macintosh of CAISO stated when asked by Mr. Kramer, "In your eyes, as the system operator is this turbine machine and equipment equivalent, as far as performance goes, with the older LM6000s and LS100s? MR. McINTOSH replied: "No. It's a superior machine to those. Its fast-start capability, its ramping capability." ³³

CAISO's Mr. Peters confirmed that the licensed CECP has the generating characteristics to balance the Grid in the presence of 33 % renewables "First, consistent with the testimony presented in this proceeding last January by the ISO witness Jim McIntosh on behalf of the CEC staff, the electric generating characteristics of the proposed **Carlsbad Energy Center will help the ISO balance the grid as the State**

³³ Exhibit 253 TN # 203954 Official Notice Document: 2010 CECP Evidentiary Hearing, Day 3 Page 225 of 502 Lines 11-23

of California works to meet its 33 percent renewables portfolio standard."³⁴

Mr. Peters of CAISO also stated that the grid needs facilities like the licensed CECP to maintain a balance between supply and load "The Presiding Member's Proposed Decision correctly acknowledges that intermittent resources like wind and solar create large system ramps and dispatchable resources that can compensate for renewable intermittency will help the ISO maintain a balance between supply and load. To achieve its renewable goals, California will need electric generating facilities such as the Carlsbad Energy Center."³⁵

Mr. Peters of CAISO also stated "Finally, as the Presiding Member's Proposed Decision recognizes, the greater San Diego area requires a certain amount of local generation resources. The ISO assesses how much local generation is needed pursuant to the federal reliability standards under which we must plan our system operations. The proposed Carlsbad Energy Center would help ensure more reliable electric system in the San Diego area."³⁶

The decision ignores substantial evidence in the proceeding from the applicant detailed by me in my testimony and pleadings about the CECP's quick start performance, its superior efficiency, and ability to integrate renewables.

"CECP's efficient design is combined with the efficiency benefits comparable to a conventional combined-cycle power plant and combines that efficiency with quick-start performance of simple-cycle plants resulting in the ability to provide daily cycling if necessary without the need to run overnight." ³⁷

Carlsbad Energy's alternatives witness Gary Rubenstein was adamant about the licensed CECP fast start capabilities in the 2012 proceeding, "What is revolutionary and ground breaking is the integration of these components and a plant control system that is able to decouple the start up and warm up time of the combustion turbine from the time required to heat the heat recovery steam generator and the steam turbine. This enables the plant to generate 150 megawatts of power, electrical output

³⁴ 07-AFC-06 Committee Conference and Evidentiary Hearing Transcript 5-19-2011 Page 30 of 324 Lines 3-9 www.energy.ca.gov/sitingcases/carlsbad/documents/2011-05-19 Transcript.pdf

³⁵ 07-AFC-06 Committee Conference and Evidentiary Hearing Transcript 5-19-2011 Page 30 of 324 Lines 10-17 www.energy.ca.gov/sitingcases/carlsbad/documents/2011-05-19_Transcript.pdf

³⁶ 07-AFC-06 Committee Conference and Evidentiary Hearing Transcript 5-19-2011 Page 31 of 324 Lines 6-13 www.energy.ca.gov/sitingcases/carlsbad/documents/2011-05-19_Transcript.pdf

³⁷ Exhibit 253 <u>Official Notice Document: 2010 CECP Evidentiary Hearing, Day 3</u> Page 124 of 502 Line 24,25 and Page 125 Lines 1-5

from each independent train within ten minutes of pushing the start button."³⁸

Applicant witness Gary Rubenstein testified that the licensed CECP *"facilitates the addition of renewable resources to the California grid by providing efficient quick-response backup generation capability"*.³⁹

The applicant's alternatives testimony stated that the licensed CECP, "Improves San Diego electrical system reliability through fast starting generating technology, creating a rapid responding resource for peak demand situations and providing a dependable resource to backup less reliable renewal resources like wind generation."⁴⁰

Applicant's witness Gary Rubenstein testified that the licensed CECP's, "project design meets several criteria in the greenhouse gas framework report for California's future gas-fired generation. First, it provides intermittent generation support, meaning it provides support for intermittent renewable resources, such as wind and solar, with fast-start and rapid-ramping capability."

Rubenstein further testified, "*The plant will provide grid operation* support, in particular provide support for grid operations **through fast-**start and rapid-ramping capability, voltage regulation, spinning and non-spinning reserve."⁴¹

Carlsbad Energy alternative witness Rubenstein testified that the licensed CECP "will provide support for extreme load conditions, such as summer peaks and emergencies, again, through its rapid-start capability"⁴²

Carlsbad Energy also testified that, "finally taking into account the first two factors, CECP will reduce system-wide greenhouse gas emissions and will support the goals and policies of AB 32, and it will do so through its efficient design and quick-start capability."⁴³

³⁸ Exhibit 253 TN # 203954 Official Notice Document: 2010 CECP Evidentiary Hearing, Day 3 Page 120 of 502 Lines 3-11

 ³⁹ Exhibit 253 TN # 203954 Official Notice Document: 2010 CECP Evidentiary Hearing, Day 3 Page 121 of
 502 Lines 17-24 Rubenstein

 ⁴⁰ Exhibit 214 Licensed CECP Exhibit 214 -- Application for Certification, Alternatives Section, 9/11/2007
 Page 2 of 12

⁴¹ Exhibit 253<u>Official Notice Document: 2010 CECP Evidentiary Hearing, Day 3</u> Page 124 0f 502 Lines 17-21

⁴² Exhibit 253Official Notice Document: 2010 CECP Evidentiary Hearing, Day 3 Page 124 of 502 Lines 22-24

⁴³ Exhibit 253 <u>Official Notice Document: 2010 CECP Evidentiary Hearing, Day 3</u> Page 126 Lines 12-16

Applicant witness Theaker stated that, "the licensed CECP could meet ISO's projected substantial deficiency in flexible ramping capacity." ⁴⁴

The decision never addresses my comments or testimony on this evidence but merely concludes that grid conditions have changed. The decision ignores the evidence that SCE has chosen to procure two combined cycle units totaling 1,284 MW and only 98 MW of peaking power from their 2013 RFO designed to replace generation lost from the closure of San Onofre. ⁴⁵ CEQA Guidelines Section 15088 requires the final commission decision to address the significant environmental issues raised by each comment,

V. The override findings are not supported by substantial evidence in the proceeding.

"The commission may not certify a facility contained in the application when it finds, pursuant to subdivision (d) of Section 25523, that the facility does not conform with any applicable state, local, or regional standards, ordinances, or laws, unless 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. In making the determination, the commission shall consider the entire record of the proceeding, including, but not limited to, the impacts of the facility on the environment, consumer benefits, and electric system reliability. The override discussion in the Final Decision fails to discuss or consider consumer benefits at all. The Final Decision ignores substantial evidence in the proceeding that the per megawatt cost to ratepayers for the ACECP is much higher than the per megawatt cost of the CECP. As detailed in both my testimony and PMPD comments Exhibit 217 is the 2009 California Energy Commission, Comparative Costs of CA Central Station Electricity Generation report. The report provides estimates of the average levelized cost for both advanced simple cylce plants and advanced combined cycle gas plants. The report estimated the levelized cost of a GE LMS-100 gas turbine for an in-service date of 2018 which coincides with the in service date of the amended CECP. Exhibit 217 reports that the per MWh cost of the LMS-100 was

⁴⁴ 07-AFC-06 Transcript of 12-12-2011 Evidentiary hearing Page 85 of 350 Lines 14-17 Witness Theaker <u>www.energy.ca.gov/sitingcases/carlsbad/documents/2011-12-12_Transcript.pdf</u>

⁴⁵Exhibit 6002 <u>Alternatives-Rebuttal Testimony of Robert Sarvey</u> Page 4 of 14, Exhibit 6005 <u>Robert Sarvey's</u> <u>Submittal of Southern California Edison Company's (U 338-E) Application for Approval of the Results</u>, Sarvey PMPD comments Page 16 "The record shows that SCE is electing to procure two combined cycle units totaling 1,284 MW and only 98 MW of peaking power from their 2013 RFO conducted to replace generation lost from San Onofre.⁴⁵"

estimated to be \$431.66 MW/h. The 2009 report estimates the per MW/h cost of an advanced combined cycle plant like the CECP to be \$158.99 MW/h.⁴⁶

Further evidence in the proceeding provided by me corroborates the high per MWh cost for the ACECP.⁴⁷ Carlsbad Energy has a 20 year contract with SDG&E for the output of the amended CECP.⁴⁸ According to SDG&E's July 2014 bill insert the capital cost of the PPTA will be 2.6 billion dollars over 20 years.⁴⁹ This would amount to an average of 130 million dollars a year in capacity payments. CEC staff has estimated the amended CECP has a 6% capacity factor so the project will produce 322,700 MW a year approximately. That would mean that each MW produced would have a capital cost of approximately \$412.⁵⁰ The PPTA with SDG&E also requires SDG&E to provide the natural gas and shoulder the GHG compliance costs. The override discussion in Final Decision fails to discuss much less analyze the consumer impacts of the ACECP. Accordingly the commission should deny the ACECP amendment for failure to show that the ACECP benefits ratepayers.

Conclusion of Law number 4 in the Override section states, "There are no feasible alternatives which would avoid or substantially lessen the significant cumulative visual impact. As detailed in my PMPD comments this conclusion is not supported by the evidence in the record of the proceeding.⁵¹ The 2012 final decision for the CECP does not find that there are any significant visual impacts to visual resources from the construction and operation of the CECP. Conclusion of Law 2 in the visual resources section of the decision states, "*Construction and operation of the Carlsbad Energy Center Project will not cause any unmitigatable significant direct, indirect, or cumulative visual impacts.*"⁵² In contrast the Final Decision for the ACECP does find visual impacts from the ACECP which require an override. As stated in the visual resources section of the *project slopes inside the lowered area of the project site which reduces the potential width of the eastern visual screening area, a significant cumulative impact may occur if it is not possible to provide adequate visual*

⁴⁶ Sarvey PMPD Comments page

⁴⁷ Exhibit 6002 Footnote 26 Page 7,8

⁴⁸ Exhibit 6002 Footnote 26 Page 7,8

⁴⁹ Exhibit 6002 Footnote 26 Page 7,8

⁵⁰ Exhibit 6002 Footnote 26 Page 7,8

⁵¹ Sarvey PMPD comments page 13, 14 (TN 205308)

⁵² Exhibit 3002 2012 CECP decision page 8.5-53 Commission Decision

screening of the project after Caltrans completes its *I-5* widening project. "⁵³ The Final Decisions conclusion that the ACECP is a visual benefit over the CECP is not supported by the evidence in the record of the proceeding.

Conclusion of Law number 5 states, "The ACECP facility is required for public convenience and necessity. There are not more prudent and feasible means of achieving the public convenience and necessity. The conclusion is not supported by substantial evidence in the record of the proceeding. It is clear that the licensed CECP is a more prudent and feasible means of achieving the public convenience and necessity. The CECP is much more beneficial to ratepayers as its projected cost per MW is 70% less than the ACECP.⁵⁴

The CECP is more beneficial to the public as it is a much cleaner plant than the ACECP. The ACECP will emit 34% more NOx emissions per MWh than the CECP.⁵⁵ The ACECP also will emit 43% more VOC emissions per MWh than the CECP.⁵⁶ The evidence in the record shows that the CECP is more efficient than the ACECP. The 2007 FSA states that the licensed, "CECP would have a net heat rate as low as 7,147 Btu/kWh and an estimated annual GHG performance factor of 0.405 MTCO2/MWh.⁵⁷ Staff's FSA testimony for the amended CECP predicts that the net heat rate for the entire year for the amended CECP is expected to be 9,473 Btu/kWh with an annual GHG performance factor of .503 MTCO2/MWh.⁵⁸

VI. Conclusion

For all the reasons stated above the Commission should grant reconsideration of their July 30th decision to approve the ACECP.

⁵³ ACECP PMPD Page 8.5-12 Finding of Fact # 5

⁵⁴ Exhibit 6002 and Exhibit 217

⁵⁵ Exhibit 2000 <u>CECP Amendment, Final Staff Assessment</u> Page 137 of 1111

⁵⁷ Exhibit 200 Licensed CECP Exhibit 200 -- Commission Staff Final Staff Assessment, docketed 11/12/09 Page 141 of 839

⁵⁸ Exhibit 2000 <u>CECP Amendment, Final Staff Assessment</u> Page 173 of 111

Respectfully Submitted,

Rootmodau

Robert Sarvey 9/2/15