

## DOCKETED

<b>Docket Number:</b>	98-AFC-03C
<b>Project Title:</b>	Delta Energy Center Compliance
<b>TN #:</b>	216430
<b>Document Title:</b>	robert simpson/ Helping Hand Tools Comments: Integrated complaint, request for investigation Â§ 1230, comments on Addendum and request to remove amendment consideration form business meeting
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	robert simpson/ Helping Hand Tools
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	3/7/2017 4:03:23 PM
<b>Docketed Date:</b>	3/7/2017

*Comment Received From: robert simpson/ Helping Hand Tools*

*Submitted On: 3/7/2017*

*Docket Number: 98-AFC-03C*

**Integrated complaint, request for investigation Â§ 1230, comments on Addendum and request to remove amendment consideration form business meeting**

*Additional submitted attachment is included below.*

**Integrated complaint, request for investigation § 1230, comments on Addendum and request to remove amendment consideration from business meeting.**

DELTA ENERGY CENTER (98-AFC-03C)

The following contains an informal request, which has not received a substantive response, and so is hereby filed as a formal request under section 1230 et el. Also included are comments on the proposed addendum.

Rob Simpson

Executive Director

Helping Hand Tools (2HT)

27126 Grandview Ave

Hayward CA. 94542

----- Original Message -----

Subject: RE: Delta Notice of Dispute and Request for Informal Investigation and Meeting

From: "Ali, Anwar@Energy" <anwar.ali@energy.ca.gov>

Date: Tue, March 07, 2017 2:48 pm

To: "rob@redwoodrob.com" <rob@redwoodrob.com>

Cc: "Root, Christine@Energy" <Christine.Root@energy.ca.gov>, "Willis, Kerry@Energy" <Kerry.Willis@energy.ca.gov>

Hi Rob:

In response to your request below, I would like you to know that Delta amendment will remain on March 8<sup>th</sup> business meeting agenda. Thank you.

Anwar

**ANWAR ALI, Ph.D.**

*Compliance Project Manager*

**CALIFORNIA ENERGY COMMISSION**

**Siting, Transmission, & Environmental Protection Division**

1516 Ninth Street, Sacramento, CA 95814

**Direct: (916) 654-5020 | Fax: (916) 651-8868**

**From:** rob@redwoodrob.com [mailto:rob@redwoodrob.com]

**Sent:** Tuesday, March 07, 2017 1:50 PM

**To:** Ali, Anwar@Energy; mitchw@calpine.com; Barbara.McBride@calpine.com

**Subject:** RE: Delta Notice of Dispute and Request for Informal Investigation and Meeting

Hi Anwar,

We are hereby requesting that consideration of the amendment be removed from the agenda for tomorrow's business meeting. We have incomplete responses to our data requests or a substantive response to our complaint. We still intend to submit a formal complaint and comments on the addendum prior to the hearing. But our comments will be limited by the lack of available data. We intend to travel to Sacramento for the hearing, if the item were to be removed from the agenda it would be helpful to know today, so that we might avoid the journey. Also has there been any communication regarding the informal complaint?

Thanks

Rob

----- Original Message -----

Subject: RE: Delta Notice of Dispute and Request for Informal Investigation and Meeting

From: "Ali, Anwar@Energy" <[anwar.ali@energy.ca.gov](mailto:anwar.ali@energy.ca.gov)>

Date: Thu, March 02, 2017 4:45 pm

To: "[rob@redwoodrob.com](mailto:rob@redwoodrob.com)" <[rob@redwoodrob.com](mailto:rob@redwoodrob.com)>, "[mitchw@calpine.com](mailto:mitchw@calpine.com)" <[mitchw@calpine.com](mailto:mitchw@calpine.com)>, "[Barbara.McBride@calpine.com](mailto:Barbara.McBride@calpine.com)" <[Barbara.McBride@calpine.com](mailto:Barbara.McBride@calpine.com)>

Hi Rob:

I hereby confirm receipt of your attached submittal. Thank you.

Anwar

**ANWAR ALI, Ph.D.**

*Compliance Project Manager*

**CALIFORNIA ENERGY COMMISSION**

**Siting, Transmission, & Environmental Protection Division**

1516 Ninth Street, Sacramento, CA 95814

**Direct: (916) 654-5020 | Fax: (916) 651-8868**

**From:** [rob@redwoodrob.com](mailto:rob@redwoodrob.com) [<mailto:rob@redwoodrob.com>]

**Sent:** Thursday, March 02, 2017 4:37 PM

**To:** Ali, Anwar@Energy; [mitchw@calpine.com](mailto:mitchw@calpine.com); [Barbara.McBride@calpine.com](mailto:Barbara.McBride@calpine.com)

**Subject:** Delta Notice of Dispute and Request for Informal Investigation and Meeting

Hi Anwar,

We have not received a response from Calpine regarding the Hydrogen explosion and destruction at the facility, so we are hereby filing the below with you;

Thank you

Rob Simpson

Executive Director

Helping Hand Tools (2HT)

510-634-4171



# **Delta Energy Center (Calpine/Bechtel Pittsburg) Power Plant Project**

## **Docket Number:**

98-AFC-03 (Application For Certification)

98-AFC-3C (Compliance Proceeding)

## **Notice of Dispute and Request for Informal Investigation and Meeting.**

The Decision for the project states;

Any person or agency may file a complaint alleging noncompliance with the Conditions of Certification. Such a complaint will be subject to review by the Commission pursuant to Title 20, California Code of Regulations, section 1230 et seq., but in many instances the noncompliance can be resolved by using the informal dispute resolution process...

*We are therefore filing this complaint under the informal dispute resolution process.*

The Decision for the project states;

***Request for Informal Investigation***

Any individual, group, or agency may request the Commission to conduct an informal investigation of alleged noncompliance with the Commission's terms and Conditions of Certification. All requests for informal investigations shall be made to the designated CPM... Depending on the urgency of the noncompliance matter, the CPM may conduct a site visit and/or request the project owner to provide an initial report, within forty-eight (48) hours, followed by a written report filed within seven (7) days.

This matter has particular urgency because Hydrogen explosion and fire destroyed part of the facility and a pending amendment proceeding is scheduled to be considered by the commission at its regular business meeting on March 8, 2017. The commissioners may require the results of this complaint to form a basis for any decision on the facility. While the Request for informal meeting, envisions a slightly more relaxed schedule we are requesting that it occur within 48 hours of this complaint and at the facility so that the CPM and can tour the wreckage from the explosion and fire. Calpine has, to date, stonewalled releasing any information regarding the explosion and fire. We have sent several emails and left a message telephonically They have apparently not informed the CEC, air district, EPA, CPUC or any other regulatory body of the explosion despite the duty to do so pursuant the Decision and other agency LORS .

The Decision states;

In the event of an unexpected temporary closure, the project owner shall notify the CPM, as well as other responsible agencies, by telephone, fax, e-mail, etc., within 24 hours and shall take all necessary steps to implement the on-site contingency plan. The project owner shall keep the CPM informed of circumstances and expected duration of the closure.

Calpine is in violation of this condition and the associated closure procedures, including "removal of hazardous materials and hazardous

wastes, draining of all chemicals from storage tanks and other equipment and the safe shutdown of all equipment.”

With no evidence presented by Calpine to the contrary, we conclude that the project must be in violation of the Mechanical LORS and Design Criteria, as described in the decision. Also worker safety and fire prevention conditions are violated.

Our drive by examination of the facility showed no visible landscaping. The project is in violation of;

VIS-8 Immediately following completion of construction of the power plant, the project owner shall implement the installation of aesthetic screening along the south and west edges of the power plant site that will partially screen views of the lower portion of the facility from the Pittsburg-Antioch Highway and nearby residences. Screening may consist of a combination of plants, aesthetic berms, and walls or fencing. Vegetation selected for landscape screening shall consist primarily of plants that are native to the local region. Screening vegetation shall consist of trees and shrubs in groupings designed to form a varied visual edge. Planting of screening vegetation shall be initiated as soon as possible during facility construction and shall achieve a minimum of 50% screening of the lower 40 feet of the facility within 10 years of the startup of operation of the facility. The goal of the screening should be to maintain the open space character of the remaining area, reduce impacts of new sources of lighting, and partially screen the lower portion of the power plant to help blend it with its surroundings and soften the visual impacts of the project.

The Decision states;

## **ENFORCEMENT**

The Commission's legal authority to enforce the terms and conditions of its Decision is specified in Public Resources Code sections 25534 and 25900. The Commission may amend or revoke the certification for any facility, and may impose a civil penalty for any significant failure to comply with the terms or conditions of the Commission Decision.

*We ask that the Commission revoke the certification and fine Calpine \$5,000,000 in civil penalties.*

*We ask that the CPM compel responses to the below data requests and verify all other conditions of certification including providing a copy all documents responsive to the bird mortality the Decision's bird mortality issue "3-year monitoring program to document evidence of collisions and/or electrocutions and to establish a mortality reduction plan, if necessary. (Condition BIO-7.)*

----- Original Message -----

Subject: [Delta Energy Center Data requests]

From: <[rob@redwoodrob.com](mailto:rob@redwoodrob.com)>

Date: Tue, February 28, 2017 10:21 am

To: [Barbara.McBride@calpine.com](mailto:Barbara.McBride@calpine.com)

Hi Barbara,

Anwar ALi at the CEC referred me to you. Sorry I sent the below email before I was advised that you are the contact for the project. Any response to the below would be appreciated.

Thanks

Rob Simpson

----- Original Message -----

Subject: Delta Energy Center Data requests

From: <[rob@redwoodrob.com](mailto:rob@redwoodrob.com)>

Date: Mon, February 27, 2017 10:23 am

To: [mitchw@calpine.com](mailto:mitchw@calpine.com)

**To; Mitchell D. Weinberg,**

Director, Strategic Origination & Development

Calpine Corporation

4160 Dublin Boulevard, Suite 100

Dublin, CA 94568

Mr. Weinberg,

We are considering Calpine's petition for amendment of the Delta Energy Center license before the CEC, due to the explosion and fire at the project. We are not sure that you are the right contact person but there is no contact info in the petition. We have some questions or data requests regarding the status of the project and the proposal to operate this project in simple cycle mode. We would like to meet with you and/or your staff about this proposal this week to tour the damage and discuss the data requests. We should submit comments soon so that they may be considered at the March 8 CEC business meeting. We also tend to inspire robust participation with other orgs and the public, the responses will help us gauge our commitment to this campaign. Our initial questions are listed below.

1. Provide any available evidence which suggests that operation in simple cycle mode is required to support the California Independent System Operator in resource planning for Summer 2012.
2. What is the heat rate for the project in simple cycle mode?



3. What will be the increase in GHG emissions per megawatt hour for the project?
4. How does the modification affect the resource adequacy contract signed in 2014 with PG&E and the ratepayer?
5. Is it Calpine's intent that there be any time limits on the operation in peaker mode, Hourly monthly, annually?
6. How many years or months would Calpine expect to run in peaker mode or is this an indefinite amendment.
7. Will the Delta Energy be seeking a modification of the projects air permit?
8. Provide a copy of all information available regarding the cause of the explosion/fire, even if investigations are incomplete. If the investigation into the cause is not complete explain the procedure used to determine that it is safe to continue to operate the facility.
9. Provide a copy of any communications with any regulatory body and CAISO since the accident.
10. Identify the frequency and duration of increased visible water vapor plumes.
11. Provide media and informational contact details for Calpine representative(s) for this amendment.
12. How long will modifications to operate in peaker mode delay repairs to the damaged areas.
13. How long will repairs take with and without the modification to peaker mode.
14. When will the steam turbine be functional?
15. Provide an estimate of cost for the repairs, the existence of any insurance covering the cost of repairs and if your corporation can collect any insurance without completing repairs.
16. What are the impacts of the demolition and repair of the turbine, air quality, traffic, etc..?
17. Will it require another commissioning period? If so what are the air quality and other impacts?
18. What would be your corporation's intention if the damage is irreparable? Would it permanently close the facility or continue to operate in simple cycle mode?
19. What additional dangers or delays are there for workers and the public by conducting repairs while the plant is operational instead of offline, for instance what would be the potential impact on workers if the isolating plate or rupture disk failed while they worked during combustion?
20. Provide any records of other facilities that have sustained similar explosions or inserted isolating plates for this type of repair.
21. Provide an economic analysis of the operation in simple cycle mode v. combined cycle mode for the ratepayer (public) and your corporation.

22. Identify how the Unexpected Temporary Closure and reporting procedures from the original decision were followed.
23. Has consultation begun with USFWS re. the oil spill into the river during the fire?
24. What were the air quality and other impacts from the explosion and fire?
25. The CEC Decision for the facility states; The project objectives are: • To build and operate a reliable power plant with a steam and electricity connection to Dow Chemical.13 (10/5 RT 56.). Does this modification meet that objective?
26. Condition AQ-78 requires Applicant to provide data from the new air monitor for one year prior to and two years after commercial operation. Please provide that data.
27. What mitigation's will the Calpine provide for the impacts?

Barring satisfactory responses to the above data requests; We intend to commence a campaign against the amendment and expect to file a request for an informal investigation (the procedure for which is identified in the decision) in addition to a complaint and request for investigation under 1231 of the Warren Alquist Act because it appears that the project is in violation of a host of conditions of the original decision and the petition for amendment has inadequate data .

Thank you,  
Rob Simpson  
Executive Director  
Helping Hand Tools (2HT)

## **Fire at Pittsburg power plant Sunday afternoon**

By [Joaquin Palomino](#), San Francisco Chronicle

**Updated 6:33 pm, Sunday, January 29, 2017**

A fire erupted in a Pittsburg power plant Sunday afternoon, sending 40-foot flames and black plumes of smoke into the air.

The fire was reported just before 4 p.m. at the [Delta Energy Center](#), on the 1200 block of [Arcy Lane](#). There were no reported injuries and Contra Costa

County Fire District personnel had extinguished the fire by 6 pm, Cpt. [Lisa Martinez](#) said

Hazardous material workers were monitoring the situation due to the presence of hydrogen, a potentially volatile chemical. U.S. Fish and Game officials also responded since lube oil was flowing from the power plant toward the delta, Martinez said.

<http://www.sfgate.com/bayarea/article/Fire-at-Pittsburgh-power-plant-Sunday-afternoon-10892913.php>

Explosion shuts down Pittsburg power plant 3 The Delta Energy Center, an 880 megawatt power plant in Pittsburg, CA, was shut down yesterday following an explosion and fire in the steam turbine generator. (Ron Riesterer/Staff) By AARON DAVIS | [aarondavis@bayareanewsgroup.com](mailto:aarondavis@bayareanewsgroup.com) | PUBLISHED: January 30, 2017 at 4:24 pm | UPDATED: January 31, 2017 at 5:24 am 3/3/2017 Explosion shuts down Pittsburg power plant indefinitely <http://www.eastbaytimes.com/2017/01/30/explosionshutsdown-pittsburgpowerplant/> 2/4 PITTSBURG — The Delta Energy Center power plant was shut down on Sunday after an explosion and fire destroyed the steam turbine generator. At 3:43 p.m., calls came in to the Contra Costa Fire District line of a fire involving the hydrogen cooling system of the steam turbine at the Delta Energy Center power plant at 1200 Arcy Lane in Pittsburg. Firefighters arrived on scene to find a lubrication oil fire that was slowly starting to dwindle after power plant staff purged the hydrogen and carbon dioxide from the system, which starved the fire of flammable gas. The fire took approximately two hours to fight and no injuries were reported. "One end of the generator was destroyed in the fire, mostly because of the initial explosion of the hydrogen gas," fire marshal Robert Marshall said. "There was concern about the gear lubrication oil going into a storm drain near there, but we were able to boom that and no oil made it down to the river." The Delta Energy Center is an 880-megawatt, natural gas-fired, "combinedcycle" plant, which uses both gas and steam to generate electricity. The plant uses three gas turbines to generate electricity and each are equipped with a heat recovery system that delivers steam to an additional steam turbine, which generates 70 percent more electricity, on average. Calpine has said that the damage was isolated to the steam turbine's generator and that the rest of the plant, as well as the neighboring communities, was not directly impacted. Calpine is still assessing the accident and was not able to comment on the cause of the explosion nor the extent of the damage "The fire was on the generator section, not on the steam turbine itself," said Brett Kerr, director of external affairs for Calpine, which owns the plant. "In the steam turbine, hydrogen is used as a cooling unit in the generator. Friction at that speed produces a lot of heat." Kerr said

that safety systems are in place and that the hydrogen, which is highly flammable, is not stored next to the generator. The Delta Energy Center is second only to the 1.3 gigawatt Pittsburg Generation Station in terms of electricity generation capacity in the Bay Area. Calpine is also the owner and operator of the Los Medanos Energy Center, a 555-megawatt combined cycle plant in Pittsburg. The Delta Energy Center is the 19th largest, in terms of generating capacity, in the state. When running 24 hours a day, seven days a week, the Delta Energy Center can

3/3/2017 Explosion shuts down Pittsburg power plant indefinitely <http://www.eastbaytimes.com/2017/01/30/explosionshutdown-pittsburgpowerplant/>

3/4 When running 24 hours a day, seven days a week, the Delta Energy Center can meet the electricity demands of more than 800,000 households. It is unknown when it will be back online. "The entire facility is offline until we can make sure it's safe to restart it," Kerr said. Reading this on your phone or tablet? Stay up to date on East Bay news with our new, free mobile app. Get it from the Apple app store or the Google Play store. According to the California Independent System Operator (CAISO), which oversees regional electrical grids and ensures competitive markets, the Delta and Los Medanos Energy centers have both been online since Dec. 14 to provide backup energy due to planned and forced transmission outages. Read the notice online at [bit.ly/CPMnotice](http://bit.ly/CPMnotice). According to CAISO, the outages did not impact grid reliability. "As far as where the energy comes from, we have outages often on the grid and our operators re-optimize the grid for the area and find generation that is the most feasible to deliver to the area at the lowest cost feasible," said Steven Greenlee, spokesman for CAISO. "The market sets the price, so it's equally plausible that the price could be lower."

<http://www.eastbaytimes.com/2017/01/30/explosion-shuts-down-pittsburg-power-plant/>

PITTSBURG (KRON)—Firefighters are working to put out a fire that started Sunday afternoon in a steam turbine generator at a Pittsburg energy plant, according to the Contra Costa County Fire Protection District.

The incident was reported 3:43 p.m. at the Calpine Delta Energy Center on Arcy Lane.

The automatic fire extinguisher system was activated when the fire started and everyone near the generator was able to get out safely, said Fire Prevention Capt. Lisa Martinez said.

No firefighters were injured.

A hazmat team was called to the scene because the incident involved hydrogen which is a hazardous material, Martinez said. Businesses and homes were not evacuated.

Most of the fire was put out by 4:45 p.m.

The California Department of Fish and Wildlife have been told about the fire because the power plant is near the Dow Wetlands Preserve and the San Joaquin River, Martinez said.

<http://kron4.com/2017/01/29/firefighters-working-to-extinguish-fire-at-pittsburg-energy-plant/>

At 3:43 pm Sunday, Contra Costa County firefighters responded to a report of a generator on fire at the Delta Energy Center.

Located in the 1200 block of Arcy Lane in Pittsburg, CONFIRE reported heavy black smoke coming from the facility and requested confirmation that there was no hazardous materials which the facility confirmed.

By 4:10 pm, CONFIRE reported that they had a fire in a turbine generator about 30-40 feet in the air. They were also dealing with some flammable liquid on the ground while setting up a ground monitor for hydrogen. It was reported the hydrogen was secured from the fire. Lube oil was also reported on fire and they were preparing to make an interior attack.

By 4:22 pm, CONFIRE reported electrical lockdown was complete and two-in-two-out established for interior attack.

By 4:35pm, CONFIRE reportedly evacuated all crews from the interior and are reassessing. Fire is still active.

By 4:41pm, CONFIRE requested County Hazmat and Fish & Game to the scene. Lube oil is making its way into the river. Reported a majority of the fire was out and that its still a small fire that was burning.

Check back for updates.

<http://eastcountytoday.net/pittsburg-generator-at-delta-energy-center-catches-fire/>

----- Original Message -----

Subject: RE: Delta energy center data request

From: "Ali, Anwar@Energy" <[anwar.ali@energy.ca.gov](mailto:anwar.ali@energy.ca.gov)>

Date: Tue, February 28, 2017 10:38 am

To: "[rob@redwoodrob.com](mailto:rob@redwoodrob.com)" <[rob@redwoodrob.com](mailto:rob@redwoodrob.com)>

Sure I will.

**From:** [rob@redwoodrob.com](mailto:rob@redwoodrob.com) [<mailto:rob@redwoodrob.com>]

**Sent:** Tuesday, February 28, 2017 10:37 AM

**To:** Ali, Anwar@Energy

**Subject:** RE: Delta energy center data request

ok thanks. If they do file anything can you send me a copy?

R

----- Original Message -----

Subject: RE: Delta energy center data request  
From: "Ali, Anwar@Energy" <[anwar.ali@energy.ca.gov](mailto:anwar.ali@energy.ca.gov)>  
Date: Tue, February 28, 2017 10:17 am  
To: "[rob@redwoodrob.com](mailto:rob@redwoodrob.com)" <[rob@redwoodrob.com](mailto:rob@redwoodrob.com)>

Hello Rob:

We have not received any report yet; Calpine is still investigating the root cause of the fire. Thank you.

Anwar

**From:** [rob@redwoodrob.com](mailto:rob@redwoodrob.com) [<mailto:rob@redwoodrob.com>]

**Sent:** Tuesday, February 28, 2017 10:14 AM

**To:** Ali, Anwar@Energy

**Subject:** RE: Delta energy center data request

Oh hey Thanks Anwar,

I will try and reach her. Can I get a record of any communications, that you have available, since the explosion and fire at the property. Did they file some kind of incident report?

Cheers,

Rob

----- Original Message -----

Subject: RE: Delta energy center data request  
From: "Ali, Anwar@Energy" <[anwar.ali@energy.ca.gov](mailto:anwar.ali@energy.ca.gov)>  
Date: Tue, February 28, 2017 9:50 am  
To: "[rob@redwoodrob.com](mailto:rob@redwoodrob.com)" <[rob@redwoodrob.com](mailto:rob@redwoodrob.com)>  
Cc: "Root, Christine@Energy" <[Christine.Root@energy.ca.gov](mailto:Christine.Root@energy.ca.gov)>

Hi Rob:

The contact person for Calpine is Barbara McBride; her phone number is 1-925-570-0849. Thank you.

Anwar

**ANWAR ALI, Ph.D.**

***Compliance Project Manager***

**CALIFORNIA ENERGY COMMISSION**

**Siting, Transmission, & Environmental Protection Division**

1516 Ninth Street, Sacramento, CA 95814

**Direct: (916) 654-5020 | Fax: (916) 651-8868**

**From:** [rob@redwoodrob.com](mailto:rob@redwoodrob.com) [<mailto:rob@redwoodrob.com>]

**Sent:** Tuesday, February 28, 2017 8:07 AM

**To:** Ali, Anwar@Energy

**Subject:** Delta energy center data request

Hi Mr. Ali,

I see a petition for an amendment regarding the Delta Energy Center but there is no contact information for the developer or indication of the author of the petition. I have some questions that they may be able to answer. Please respond with contact information for the author or a contact person for Calpine.

Thank you  
Rob Simpson

2HT Response to DELTA ENERGY CENTER (98-AFC-03C)  
Staff Analysis of the Petition to Amend Commission Decision

2HT hereby calls for a formal amendment proceeding and evidentiary hearing to be conducted on the February 22, 2017 Calpine Petition to Amend which is being characterized as a petition for safety modifications at the Delta Energy Center. The amendment is clearly not a petition for temporary safety modifications but is in reality is a permission to operate the project in simple cycle mode for an unspecified period of time. CEC Staff has incorrectly concluded that this amendment would have no impact on the environment and that the project would comply with all LORS. The suggested modification results in significant environmental impacts and LORS violations completely ignored in the CEC Staff's assessment of the modification.

As implied in the title of the applicant's amendment safety concerns must be resolved before any Commission Decision approving the modification. At this time the root cause of the fire has not even been discovered and it is certainly premature to allow the project to operate until the failure has been identified.

**Necessity of proposed change**

The Siting Regulations require a discussion of the necessity for the proposed revision to DEC certification (Title 20, CCR, Sections 1769 (a)(1)(B)). The applicant states that the project modification is needed to, "*allow the facility to return to service for Summer 2017 in a derated capacity, and DEC is expected to support the California Independent System Operator in*

*resource planning for Summer 2017. In simple cycle mode, DEC can provide approximately 500 to 544 MW of capacity and frequency and voltage support to the applicable resource area.”*<sup>1</sup>

But the applicant and staff have not provided any analysis that the DEC is necessary to support the California System Operator for resource planning in 2017. While CAISO has not presented its 2017 summer resource and load assessment the 2016 analysis, “projected a 1-in-2 annual minimum operating reserve margin (ORM) for the CAISO system in 2016 of 24.4 percent.”<sup>2</sup> The projected 1-in-2 annual minimum operating reserve margins for the NP26 and SP26 zones are 21.3 percent and 25.6 percent, respectively.<sup>3</sup> CAISO found an operating reserve margin of 21.3 % in the NP-26 zone which is well over the required 15 % operating reserve margin for NP26 zone. DEC’s operation in simple cycle mode is not necessary when the PG&E service area already has a substantial planning reserve margin.

Further evidence that the DEC is not needed is the actual operation of the Marsh Landing Peaker plant located very near the DEC. The Marsh Landing Facility has a nominal electrical output of 760 MWs generated from four Siemens 5000F combustion turbine units operating in simple-cycle mode.<sup>4</sup> In 2015 the Marsh Landing Generating Station produced a meager 87,300 MW which required the project to be online for approximately 115 hours in 2015 which was a utilization factor of 1.3 %. There was very little need for the 760 MW of peaking power in 2015. In 2014 the project was utilized even less producing only 58,836 MW which was less than a 1 % utilization factor. In 2013 the project produced 75,310 MW for an approximate 1 % capacity factor. Clearly there is has been no need demonstrated by the applicant and staff for the DEC operating in simple cycle mode and no necessity demonstrated for the modification. The efforts of Calpine would serve the public better by getting the DEC online in combined cycle mode with its high utilization and low heat rate. Under the circumstance the public is much better off canceling the resource adequacy contract for the DEC as it is not needed in simple cycle mode.

There is no evidence that the operation of the DEC in simple cycle mode benefits the public.

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<sup>1</sup> Calpine Petition for Modification Page 7 of 14

<sup>2</sup> CAISO 2016 Summer Resources and Load Assessment Page 3 of 49  
[www.caiso.com/Documents/2016SummerAssessment.pdf](http://www.caiso.com/Documents/2016SummerAssessment.pdf)

<sup>3</sup> CAISO 2016 Summer Resources and Load Assessment Page 3 of 49  
[www.caiso.com/Documents/2016SummerAssessment.pdf](http://www.caiso.com/Documents/2016SummerAssessment.pdf)

<sup>4</sup> <http://www.energy.ca.gov/sitingcases/marshlanding/index.html>



Section 1769 (a) (1) (g) requires that the PTA provide a discussion of how the modification affects the public.” Staff concludes in its assessment that, *“The changes will be beneficial to the project owner and the public by enabling the Delta Energy Center to support the California Independent System Operator in resource planning for the summer of 2017.”* That is nothing but a conclusionary statement with no evidence to support the conclusion. This position assumes that the DEC is needed to operate in simple cycle mode for system reliability in 2017 but as detailed above there is no evidence supporting a finding that the DEC is needed to operate in simple cycle mode for reliability in 2017. The projects operation ins simple cycle mode insreases GHG and criteria air pollutants by at least 35% per megawatt. This leads to a 35% increase in ratepayer costs for fuel and GHG allowances. The current resource adequacy contract financed by the ratepayer can be more effectively used elsewhere a fact we will pursue at the Public Utilities Commission should this amendment be approved.

## Environmental Impacts

### GHG Emissions

The applicant claims that operation of this project in simple cycle mode presents no environmental impacts because the emissions from the combustion turbines will remain the same. The applicant ignores the substantial increase in GHG emissions that will occur because operating the project in simple cycle mode will increase GHG emissions per MW by up to as much as 35%. The Delta Energy Center is the second highest GHG emitting power plant in the state.<sup>5</sup> In 2015 the project operated in combined cycle mode at a heat rate of 7.45082648410106.<sup>6</sup> The project produced 4,632, 636 MW and consumed 34,516,967 MMBTU.<sup>7</sup> In 2015 The Delta Energy Center emitted 1,812,158 metric tons of CO<sub>2</sub>E according to the ARB GHG database.<sup>8</sup> Operating in simple cycle mode the projects heat rate will increase by at approximately 35% with the elimination of the steam turbine. The amendment petition contains no limit on the annual hours of operation for the Delta Energy Center operating in simple cycle mode. Potential GHG emissions could increase by as much as approximately

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<sup>5</sup><https://www.arb.ca.gov/cc/reporting/ghg-rep/reported-data/ghg-reports.htm>

<sup>6</sup>[http://www.energy.ca.gov/almanac/electricity\\_data/web\\_qfer/Heat\\_Rates.php?goSort=annual.expr1&year=2015](http://www.energy.ca.gov/almanac/electricity_data/web_qfer/Heat_Rates.php?goSort=annual.expr1&year=2015)

<sup>7</sup>[http://www.energy.ca.gov/almanac/electricity\\_data/web\\_qfer/Heat\\_Rates.php?goSort=annual.expr1&year=2015](http://www.energy.ca.gov/almanac/electricity_data/web_qfer/Heat_Rates.php?goSort=annual.expr1&year=2015)

<sup>8</sup> <https://www.arb.ca.gov/cc/reporting/ghg-rep/reported-data/ghg-reports.htm>

630,000 metric tons per year<sup>9</sup> which represents a substantial increase in GHG emissions should the DEC again be called on to produce 4,632,636 MW in 2017.

#### GHG Emissions Performance Standard LORS Violation

Without an annual limit on the projects operation the project in simple cycle mode cannot meet the Federal or State emissions performance standard for GHG emissions. The project is licensed for 8,760 hours per year so the emission performance standards would be applicable. In the alternative the commission can introduce a condition of certification limiting the project operation to prevent implementation of the emission performance standards on the project as it operates in simple cycle mode.

#### Criteria Pollutant Impacts

When the project operates without the steam turbine the criteria pollutant emissions will also increase by approximately 35% per megawatt. The BAAQMD has recognized the Pittsburg area as an Environmental Justice community and a 35% increase in criteria pollutants from the DEC in the Pittsburg area could have significant health impacts on the EJ community. This potential impact has not been analyzed by staff or the applicant in this amendment analysis. The current permit allows the project to operate all year and any approval of the amendment must include a condition limiting the operation of the DEC in simple cycle mode to the summer peak season. Another condition is necessary to prevent the project from operating outside the 2017 summer peak season. The applicant has proposed that the project be converted to simple cycle mode for the DEC to support the California Independent System Operator in resource planning for Summer 2017. No other reason to operate in simple cycle mode has been provided.

#### Air Quality Impacts

Because the exhaust temperature and stack characteristics will now reflect only simple cycle operation the projects air quality impacts must be reanalyzed for compliance with State and Federal air quality standards. Neither Staff nor applicant have performed such modeling. In the original FDOC NO2 impacts were analyzed and the result in that analysis shows that the project

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<sup>9</sup> 75,000 metric tons per year is considered significant by most agencies.

would now violate both State and Federal standards. The following table E-6 as produced from the FDOC for the Delta Energy Center reveals:

**Table E-6  
California and National Ambient Air Quality Standards and  
Ambient Air Quality Levels from the Proposed Project ( $\mu\text{g}/\text{m}^3$ )**

Pollutant	Averaging Time	Maximum Background	Maximum Project impact	Maximum Project impact plus maximum background	California Standards	National Standards
NO <sub>2</sub>	1-hour	169	267	436	470	---

Health Risk Assessment

A health risk assessment was performed on the DEC operating in combined cycle mode but no current health risk assessment is provide for operation exclusively in simple cycle mode. Due to the various emission sources in the area including new emission sources and the presence of an environmental justice population a new health risk assessment must be performed.

Noise

Staff analysis concludes that, *“in the event of unanticipated overpressure of the condenser occurs, the pressure relief vent would engage and potentially generate additional noise.”*<sup>10</sup> According to Staff, *“Condition of Certification NOISE-2 would address and resolve it, and such a resolution may involve installing enhanced noise mufflers to sufficiently reduce the impact.”* Staff identifies a significant impact but relies on a noise complaint procedure notification that is over 15 years old. The noise complaint procedure must be updated to include current notification of the noise complaint procedures and an explanation to the public of why additional noise may be emanating from the project. Staff should analyze the potential extent and frequency of the additional noise in its assessment of the amendment similar to its assessment of steam blows in the original proceeding. Staff should modify or provide a new condition of certification similar to Noise 4 in the original decision shown below.

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<sup>10</sup> **DELTA ENERGY CENTER (98-AFC-03C) Staff Analysis of the Petition to Amend Commission Decision Page 3**

**NOISE-4** If a traditional, high-pressure steam blow process is employed, the project owner shall equip steam blow piping with a temporary silencer that quiets the noise of steam blows to no greater than 110 dBA measured at a distance of 100 feet. The project owner shall conduct steam blows only during the hours of 8:00 a.m. to 5:00<sup>o</sup>p.m. If a low-pressure continuous steam blow process is employed, the project owner shall submit a description of this process, with expected noise levels and projected hours of execution, to the CPM.

**Verification:** At least 15 days prior to the first high-pressure steam blow, the project owner shall submit to the CPM drawings or other information describing the temporary steam blow silencer, and a description of the steam blow schedule. At least 15 days prior to the first low-pressure continuous steam blow, the project owner shall submit to the CPM drawings or other information describing the process, including the noise levels expected and the projected time schedule for execution of the process.

#### CO catalyst need to control VOC emissions

The original decision stated that, *“The Commission has typically required a CO catalyst in previous certification proceedings. In this case, the evidence indicates that the project will likely meet BACT for CO and VOC without using a CO catalyst. Indeed, the FDOC does not require a CO catalyst; however, Condition AQ-30 provides that DEC will install such catalyst if project emissions exceed permitted levels. Staff did not take a clear position on whether to require the catalyst in the project design. Since the Applicant is willing to take the risk that the project could be shut down to install the catalyst, the Commission does not find it necessary to impose a requirement to install the catalyst at this time. We believe that adequate safeguards are in place to ensure the project will operate at the permitted levels approved in the FDOC.”*<sup>11</sup> The project has already proved that it cannot meet CO emission levels during start up and shut down and yet the Commission required no CO catalyst in response to the applicant’s sixth amendment.<sup>12</sup> It is not clear that the project can meet CO and VOC emission limits in simple cycle mode. Condition AQ-30 requires DEC to install an oxidation catalyst to control project emissions of CO and VOC if emissions exceed permitted levels.<sup>13</sup> An oxidation catalyst

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<sup>11</sup> CEC Final Decision Delta Energy Center Page 124, 125 [www.energy.ca.gov/sitingcases/delta/documents/2000-02-09\\_DELTA\\_DECISION.PDF](http://www.energy.ca.gov/sitingcases/delta/documents/2000-02-09_DELTA_DECISION.PDF)

<sup>12</sup> TN 28655 **Commission Order Approving Project Modification**

<sup>13</sup> CEC Final Decision Delta Energy Center Page 126 [www.energy.ca.gov/sitingcases/delta/documents/2000-02-09\\_DELTA\\_DECISION.PDF](http://www.energy.ca.gov/sitingcases/delta/documents/2000-02-09_DELTA_DECISION.PDF)

would ensure compliance and limit TAC and VOC emissions in the EJ community. The decision on the amendment should require the CO catalyst.

Findings and Conclusion From Original Decision that are Undermined.

Section 1769 (a)(1) (D) requires that, “(D) If the modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the final decision, an explanation of why the change should be permitted. Neither Staff nor applicant address this requirement of Section 1769. Operating in simple cycle mode the project does not conform to the assumptions, rationale, findings or other bases of the final decision including the findings and conclusions of the DEC final Decision listed below:

4. The project will employ modern F-class gas turbines (Westinghouse 501F) nominally rated at 55.8 percent lower heating value (LHV) efficiency, which compares favorably to other available F-class turbine generators.<sup>14</sup>

6. As a highly efficient, state-of-the-art natural gas-fired power plant, DEC is significantly more efficient than older power plants in the utility system.<sup>15</sup>

1. DEC will ensure equipment availability by implementing quality assurance/quality control programs and by providing adequate redundancy of auxiliary equipment to prevent unplanned off-line events.<sup>16</sup>

2. DEC s three parallel trains of gas turbine generators/HRSGs, as well as the double circuit 230-kV transmission lines provide inherent reliability.<sup>17</sup>

7. DEC will perform reliably in baseload and load following duty and cause no significant impacts to electric system reliability.<sup>18</sup>

2. The hazardous materials that pose the greatest risk to public health and safety include anhydrous ammonia, sulfuric acid, and natural gas.<sup>19</sup>

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<sup>15</sup> CEC Final Decision Delta Energy Center Page 82 [www.energy.ca.gov/sitingcases/delta/documents/2000-02-09\\_DELTA\\_DECISION.PDF](http://www.energy.ca.gov/sitingcases/delta/documents/2000-02-09_DELTA_DECISION.PDF)

<sup>16</sup> CEC Final Decision Delta Energy Center Page 86 [www.energy.ca.gov/sitingcases/delta/documents/2000-02-09\\_DELTA\\_DECISION.PDF](http://www.energy.ca.gov/sitingcases/delta/documents/2000-02-09_DELTA_DECISION.PDF)

<sup>17</sup> CEC Final Decision Delta Energy Center Page 86 [www.energy.ca.gov/sitingcases/delta/documents/2000-02-09\\_DELTA\\_DECISION.PDF](http://www.energy.ca.gov/sitingcases/delta/documents/2000-02-09_DELTA_DECISION.PDF)

<sup>18</sup> CEC Final Decision Delta Energy Center Page 86 [www.energy.ca.gov/sitingcases/delta/documents/2000-02-09\\_DELTA\\_DECISION.PDF](http://www.energy.ca.gov/sitingcases/delta/documents/2000-02-09_DELTA_DECISION.PDF)

<sup>19</sup> CEC Final Decision Delta Energy Center Page 185 [www.energy.ca.gov/sitingcases/delta/documents/2000-02-09\\_DELTA\\_DECISION.PDF](http://www.energy.ca.gov/sitingcases/delta/documents/2000-02-09_DELTA_DECISION.PDF)

## **Revised Findings and Conclusions and Conditions of Certification**

### Finding and Conclusion HAZ 2 should be modified DEC Final Decision Page 85

The hazardous materials that pose the greatest risk to public health and safety include anhydrous ammonia, sulfuric acid, and natural gas and hydrogen.

### Socio Finding and conclusion 13,14,15 on Page 326 of the DEC final Decision should be modified:

13. The affected population within the five-mile radius and within the footprint of the highest concentrations of air contaminants (which are below levels of significance) is ~~not~~ predominately minority or low-income.

14. The project does ~~not~~ present a high and adverse impact, ~~either~~ directly and ~~or~~ cumulatively, to the environment or public health.

16. There is ~~no~~ persuasive evidence of environmental justice issues in this case.

## **Proposed New Conditions of Certification**

AQ- 77 The Project shall operate in simple cycle mode only during the 2017 peak season.

AQ-78 The project owner will only operate the project in simple cycle mode during a CAISO declared Stage 1 ,2, or 3 alert or other electrical emergencies.

HAZ- 3 The Project Owner will install a containment system around all of the entrances to storm water outfalls to prevent the lubricating oil and other hazardous materials from migrating off the project site in the event of an accident.

COC Noise 8- The project owner will report to the CPM noise exceedances from the pressure relief valve installed for simple cycle operation and notify property owners again of possible noise exceedances and of a noise compliant procedure and noise complaint line.

## **Environmental Justice**

The original decision concluded that there were no environmental justice concerns because the area around the project was not majority minority. This is no longer true<sup>20</sup> as the minority population in the project area within a five mile radius is now 70%. The increase in

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<sup>20</sup> Appendix A EPA Demographic Profile

criteria pollutants produced in the Pittsburg area due to the DEC operating in simple cycle mode will create another air pollution burden on an already overburdened environmental justice community. The previous analysis concluded that the projects NO<sub>2</sub> emission would not comply with **current** Federal and State NO<sub>2</sub> standards. A current air quality analysis and HRA must be performed to ensure that the EJ community is not impacted while the project operates in simple cycle mode.

## Appendix A - Demographic Profile of Surrounding Area (5 Miles)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

<b>Radius of Area:</b>	5	<b>Land Area:</b>	80%	<b>Households in Area:</b>	44,950
<b>Center latitude:</b>	38.01587	<b>Water Area:</b>	20%	<b>Housing Units in Area:</b>	48,685
<b>Center Longitude:</b>	-121.84288	<b>Population Density:</b>	2,256/sq.mi.	<b>Households on Public Assistance:</b>	1,992
<b>Total Persons:</b>	141,586	<b><u>Percent Minority:</u></b>	<b><u>70%</u></b>	<b>Persons Below Poverty Level:</b>	46,605
<b>Race Breakdown</b>	<b>Persons (%)</b>	<b>Age Breakdown</b>		<b>Persons (%)</b>	
<b>White:</b>	65,035 (45.93%)	<b>Child 5 years and younger:</b>		10,571 (7.47%)	
<b>African-American:</b>	23,862	<b>Minors 17 years and younger:</b>		39,131 (27.64%)	

	(16.85%)		
<b>Hispanic-Origin:</b>	53,756 (37.97%)	<b>Adults 18 years and older:</b>	102,455 (72.36%)
<b>Asian/Pacific Islander:</b>	15,651 (11.05%)	<b>Seniors 65 years and older:</b>	13,147 (9.29%)
<b>American Indian:</b>	1,307 (.92%)		
<b>Other/Multiracial:</b>	35,732 (25.24%)		
<b>Education Level (Persons 25 &amp; older)</b>	<b>Persons (%)</b>	<b>Income Breakdown</b>	<b>Households (%)</b>
<b>Less than 9th Grade:</b>	7,917 (9.57%)	<b>Less than \$15,000:</b>	4,789 (11.02%)
<b>9th through 12th Grade:</b>	8,279 (10%)	<b>\$15,000 - \$25,000:</b>	3,679 (8.47%)
<b>High School Diploma:</b>	23,306 (28.16%)	<b>\$25,000 - \$50,000:</b>	9,733 (22.4%)
<b>Some College/2-yr:</b>	29,122 (35.19%)	<b>\$50,000 - \$75,000:</b>	8,275 (19.05%)
<b>B.S./B.A. or More:</b>	14,143 (17.09%)	<b>Greater than \$75,000:</b>	16,966 (39.05%)
21			

<sup>21</sup> EPA ECHO Website <https://echo.epa.gov/detailed-facility-report?fid=110002936538>