

HEARING  
BEFORE THE  
CALIFORNIA ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION

In the Matter of: )  
 )  
Application for Certification ) Docket No.  
for the Metcalf Energy Center ) 99-AFC-3  
(Calpine Corporation and )  
Bechtel Enterprises, Inc.)  
\_\_\_\_\_ )

COYOTE GRANGE HALL  
412 MONTEREY ROAD  
COYOTE, CALIFORNIA

MONDAY, MARCH 12, 2001

2:05 p.m.

Reported by:  
James Ramos  
Contract No. 170-99-001

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

COMMITTEE MEMBERS PRESENT

Robert A. Laurie, Commissioner, Presiding Member

William J. Keese, Chairman, Associate Member

Gary Fay, Hearing Officer

STAFF PRESENT

Dick Ratliff

Kerry Willis

Paul C. Richins, Jr.

APPLICANT

Jeffery D. Harris, Attorney,  
Ellison, Schneider and Harris  
for Calpine Corporation/Bechtel Enterprises

Kenneth E. Abreu, Development Manager  
Calpine Corporation  
Metcalf Energy Center

John L. Carrier, Senior Project Manager  
CH2MHILL

Steve DeYoung  
Calpine Corporation/Bechtel Enterprises

INTERVENORS

Scott Scholz  
South San Jose.com

William J. Garbett  
T.H.E.P.U.B.L.I.C.

Issa Ajlouny

Robert Williams

INTERVENORS

Elizabeth Cord  
Timmothy Alton  
Santa Teresa Citizens Action Group

ALSO PRESENT

Mollie Dent  
City of San Jose

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

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2:05 p.m.

PRESIDING MEMBER LAURIE: Good afternoon. Welcome to the continued hearing for the Metcalf Energy Center project. My name is Robert Laurie, Commissioner at the California Energy Commission and Presiding Member of the Committee assigned to hear this case and make recommendations to the full Commission.

To my right is our Hearing Officer, Mr. Gary Fay. Mr. Fay, at this time, will go over our expectations over the next few days to make sure they are consistent with yours, and get introductions for the record. Mr. Fay.

HEARING OFFICER FAY: Thank you, Commissioner Laurie. Good afternoon. Today begins the sixth set of evidentiary hearings in the Metcalf Energy Center AFC proceeding. Today's hearing was noticed on January 17th of this year, and noticed Monday, March 12th, Tuesday, March 13th and Wednesday March 14th. The notice indicated each session beginning at 2:00 p.m.

And then following that was the notice of public hearings that was sent out on March 7th that indicated that in the evening of March 14th,

1 beginning at 7:00 p.m., at the same location here  
2 at the Grange Hall, we will have an opportunity  
3 for representatives of various groups to come and  
4 make public comment, non-evidentiary comments.  
5 And it will be transcribed, but it will not be  
6 part of the evidentiary record. It will  
7 essentially be public comment.

8 In addition, in discussions with the  
9 City of San Jose, they indicated that they wish to  
10 recall Dr. Ken Lim. And I've spoken to Robert  
11 Kwong, the attorney for the District, and Dr. Lim  
12 can be available at 10:00 a.m. on Wednesday  
13 morning, March 14th.

14 And we had also anticipated the  
15 possibility that just due to the cross-examination  
16 that people have suggested they need time for,  
17 that we might be starting in the morning of the  
18 14th in any case.

19 So, at this time it looks like Dr. Lim  
20 will be available at 10:00 a.m. on the 14th. Ms.  
21 Dent.

22 MS. DENT: Yes, 10:00 a.m. on the 14th  
23 is acceptable for Dr. Lim's cross-examination to  
24 me. And I also wanted to have you confirm for the  
25 record that the public policy maker testimony will

1 be continued over to the 23rd of March because the  
2 Mayor of the City of San Jose is not available on  
3 March 14th.

4 HEARING OFFICER FAY: Yes. I also  
5 discussed with Ms. Dent that the Mayor of San Jose  
6 would come and make his statement on March 23rd.  
7 And, in addition, Robert Therkelsen, the Division  
8 Chief of the Siting Division at the Energy  
9 Commission, will not be able to make his statement  
10 on the evening of the 14th; and he'll make it the  
11 evening of the 23rd, as well.

12 MS. DENT: Officer Fay, have you  
13 confirmed that you want those presentations to  
14 start on the evening of the 23rd and not earlier  
15 in the day as we discussed?

16 HEARING OFFICER FAY: We're going to  
17 have to have a discussion about that later. At  
18 this time it's still noticed for 7:00 p.m. And  
19 one of the contingencies is the availability of  
20 the hall, that sort of thing.

21 So I think we're going to have to get  
22 back to you on that. But --

23 PRESIDING MEMBER LAURIE: Ms. Dent, the  
24 purpose of that day is for public convenience. If  
25 public convenience is better served by starting it

1 at 5:00, we'll start it at 5:00. If it's better  
2 served by starting at 7:00, we'll start it by  
3 7:00, and we'll have that discussion.

4 MS. DENT: I completely agree with you.  
5 We had -- in fact, I had had a discussion with  
6 Officer Fay about the possibility of doing it  
7 earlier in the week, rather than a Friday night,  
8 because as Friday night may not be that convenient  
9 to the public.

10 But we will certainly work with the  
11 Commission on scheduling that. And as soon as you  
12 all know what sounds best from your standpoint,  
13 I'll check the Mayor's availability.

14 HEARING OFFICER FAY: Right, and as I  
15 say, I think right now the only constraint is  
16 whether or not the hall is available --

17 MS. DENT: Right.

18 HEARING OFFICER FAY: -- a couple hours  
19 earlier, and if it is --

20 MS. DENT: And I've put in a call to  
21 check on the possibility of the City finding an  
22 alternative location at least for that portion of  
23 the hearing, if you want us to.

24 HEARING OFFICER FAY: Okay. And, Ms.  
25 Dent, can you clarify whether or not you have

1           authenticated exhibits 93 and 94? We still don't  
2           have that on the record.

3                       MS. DENT: Yes, I believe I did fax. I  
4           sent the signed copy of those exhibits back about  
5           two or three weeks ago to Mr. Harris and to  
6           Officer Valkosky, that was before I realized that  
7           you were going to be handling the rest of the  
8           hearings.

9                       And, in fact, I brought multiple copies  
10          of the authentic, of the signed letters with me to  
11          all of the prior hearings. I don't think I  
12          brought them today because no one had asked for  
13          them. I think we had a discussion about that off  
14          the record, no one seemed interested.

15                      But I'll bring them back tomorrow. I  
16          have about ten copies of each of the letters, and  
17          they can be used as the exhibits in the record if  
18          you wish.

19                      HEARING OFFICER FAY: Okay. Thank you.  
20          I also would like to call people's attention to  
21          the fact that the notice for the evening of the  
22          14th indicates that there will be a discussion  
23          about, or argument regarding what the parties  
24          believe override criteria should be, or what legal  
25          and conceptual criteria the Commission should use

1 in applying the statute to the facts in  
2 determining any override questions.

3 So, we'll hear argument on that, as  
4 well. That will be handled at a different time  
5 than the public comment. And I had a discussion  
6 with Mr. Harris earlier about allowing those who  
7 come to make comment get on and do their comments,  
8 and then holding argument on the override until a  
9 little bit later. That way we'd probably delay  
10 fewer people. So if that works out for the  
11 parties, it is what I would recommend.

12 PRESIDING MEMBER LAURIE: I'm sorry,  
13 Gary, I didn't hear that.

14 HEARING OFFICER FAY: To begin with the  
15 comments from representatives of the public at  
16 7:00, and hold any argument on the override  
17 questions until later in the evening, after the  
18 public comments have been made. Just so that we  
19 can allow those people to make their comments and  
20 leave.

21 PRESIDING MEMBER LAURIE: The priority  
22 for that day is getting through the override  
23 argument. Certainly if folks show up at 7:00 and  
24 we can get through that in a half hour, that's  
25 fine. I'm concerned about going late when that

1 issue is of such great importance to everybody,  
2 it's really got to be, folks really have to feel  
3 sharp. And so we can get a sense of it.

4 But I'm hesitant to delay the override  
5 comment much, if at all, to take the public input.  
6 I would much rather proceed with public input and  
7 get it done, and then take public comment. I  
8 don't know if the public would have any different  
9 expectation.

10 Maybe we could get some sense from the  
11 proposed attendees what time they plan to be here.  
12 Again, if everybody is going to get done in a half  
13 hour and we start override at 7:30, that's fine.  
14 But everybody is really going to focus on their  
15 override discussion, and I don't think it's fair  
16 to keep everybody waiting for the public comment  
17 at that point.

18 MR. RATLIFF: Which date are you  
19 referring to? Are we talking about the 14th or --

20 HEARING OFFICER FAY: Yeah, Mr. Ratliff,  
21 just a second. Do you mind if we go off the  
22 record and just have a timing discussion?

23 PRESIDING MEMBER LAURIE: No.

24 HEARING OFFICER FAY: Let's go off the  
25 record.

1 (Off the record.)

2 HEARING OFFICER FAY: What I'd like to  
3 do is just briefly summarize. We had a discussion  
4 off the record of the time available in the next  
5 several days and we took estimates from everybody  
6 on how long they thought they would need for  
7 direct and cross-examination.

8 Their estimated time exceeds the  
9 available time. So that creates a problem for us.  
10 And, Issa, you had a comment you wanted to make?

11 MR. AJLOUNY: Yeah, I think one of the  
12 biggest concerns is, you know, we're always  
13 talking about procedures and following the rules.  
14 And as I understand it, we should be noticed at  
15 least ten days in advance of any public hearing.  
16 and you stated earlier that the March  
17 14th and possibly the 16th hearing was announced  
18 on the 7th of this month? That gives it seven  
19 days. So, for the record, I have a big concern of  
20 that.

21 For the record, I have a big concern of  
22 what maybe I perceive why the 14th was picked at  
23 7:00 for override issues. I don't remember ever  
24 having it discussed during any of the hearings  
25 that we would make the 14th for override.

1           I've always heard the 16th being the  
2           override day for that. I've intended to talk on  
3           the 16th for the override, and was going to give  
4           myself later on in the week, once we're done with  
5           these hearings, to prepare for that.

6           So, with that in mind, I'd like to have  
7           special time set aside on the 23rd for the  
8           override issue, even though it's a public comment  
9           section. And the reason I'm bringing this up is  
10          because I would perceive the public comment  
11          section to be a one, two, three minute time for  
12          each person to comment. And I don't want to be  
13          limited to the one, two or three minutes in my  
14          presentation of override.

15          With that in mind, Gary, do you see any  
16          problem with that?

17          HEARING OFFICER FAY: Well, Ms. Dent  
18          indicated that the City is likely to give a more  
19          holistic argument on their policy views and  
20          override -- views on override, and that will take  
21          place on the 23rd. So, I see no reason to exclude  
22          you from doing that, as well.

23          Now, --

24          MR. AJLOUNY: Without a --

25          HEARING OFFICER FAY: -- it's up to

1 Commissioner Laurie, but he seemed to have agreed  
2 that San Jose can do that, so I see no problem  
3 with that.

4 MR. AJLOUNY: So, without a limitation  
5 of a one or two minute --

6 HEARING OFFICER FAY: No. I can't  
7 promise that at all, because obviously if 100  
8 people show up and, you know, they all want to  
9 talk, we're going to have to divide up the time.

10 MR. AJLOUNY: I understand that, but do  
11 you understand the rules have been broken as far  
12 as public notice on the 14th? Why has that  
13 happened? Maybe I should ask that. Why did all  
14 of a sudden 14th at 7:00 appear to be a override  
15 issue, when we're all planning to be here talking  
16 about alternatives?

17 HEARING OFFICER FAY: Well, one reason  
18 was people were concerned about the 16th because  
19 many of you are involved in the energy conference  
20 all day long. And so that was problematic.

21 Another reason was it was perceived in  
22 our discussion that we'd be able to get our  
23 business done and not have to come back in the  
24 16th. And so, it was just for the efficiency of  
25 time, that's all.

1                   MR. AJLOUNY:  But I mean why pick the  
2                   14th?

3                   HEARING OFFICER FAY:  I just explained.  
4                   But your concern is noted.  But I would like to  
5                   get started on taking evidence now, and anything,  
6                   any other preliminary matters --

7                   MR. AJLOUNY:  Yeah, I have --

8                   HEARING OFFICER FAY:  -- before we move  
9                   on?

10                  MR. AJLOUNY:  -- I have to make -- also  
11                  I have a concern.  And this is where I'm getting  
12                  to, Mr. Fay, is I feel even though this is  
13                  supposed to be an objective process, and that it's  
14                  not supposed to be really a political process,  
15                  you're supposed to take the facts in the hearings  
16                  and have the Commissioners deal with their  
17                  decision in that way.

18                  But I just want to note for the record  
19                  of all the things that have been going on, too bad  
20                  the Commissioners aren't here right now to hear  
21                  this so they could respond to this, and maybe what  
22                  I do should wait, because I think they need to  
23                  hear --

24                  HEARING OFFICER FAY:  If you have any  
25                  doubts, please wait until they're here.

1                   MR. AJLOUNY: I'll wait till they're  
2 here, but if you give me the time to put the  
3 input --

4                   HEARING OFFICER FAY: I mean I think if  
5 it's important enough for you to mention you  
6 should have them here.

7                   MR. AJLOUNY: Okay.

8                   HEARING OFFICER FAY: Okay.

9                   MS. CORD: Could I just comment that the  
10 16th, I think I heard you say that the City didn't  
11 want anything on the evening of the 16th because  
12 they have something that day?

13                   HEARING OFFICER FAY: Well, I think  
14 concerns were voiced because the energy conference  
15 was going during the day.

16                   MS. CORD: Well, I think the concerns  
17 may have been when it was thought that maybe  
18 they'd be happening at the same time. But the  
19 energy summit is during the day and the hearing or  
20 whatever you're calling it is in the evening, so I  
21 don't think there's a conflict. Is there a  
22 conflict with the City?

23                   MS. DENT: I'll state the City's  
24 position for the record. There is a conflict  
25 during the day on Friday. No one will be

1 available during the day on Friday on the 16th.

2 In terms of the evening of the 16th  
3 versus the evening of the 23rd, we think a Friday  
4 evening is a very poor day to schedule those kind  
5 of hearings on.

6 We will be available on the evening of  
7 the 16th; we'll be available on the evening of the  
8 23rd. The Commission has indicated that they were  
9 holding hearings on the evening of the 23rd  
10 already.

11 We suggested that they start those  
12 earlier so that the participants, the parties can  
13 have time to give their override statements. If  
14 you start the hearings earlier in the evening on  
15 the 23rd, the participants -- the parties can give  
16 their override statements then.

17 But, our only conflict is that we can't  
18 do it on the evening of the 14th, and we can't do  
19 it during the day on the 16th of the days that  
20 have been mentioned so far.

21 We're open to trying to do it earlier in  
22 the week of the week of the 23rd. We're open to  
23 trying to do it in the evening on the 16th if  
24 that's what everybody wants.

25 HEARING OFFICER FAY: Okay, that

1 position is clear.

2 MR. AJLOUNY: -- have no problem if I  
3 start earlier on the 23rd to give --

4 HEARING OFFICER FAY: I understand.

5 MR. AJLOUNY: Okay.

6 HEARING OFFICER FAY: I understand. We  
7 have your comments on the record. Mr. Harris, are  
8 you ready to present your panel on transmission  
9 system engineering?

10 MR. HARRIS: I just wanted to comment,  
11 if I could, real briefly. To thank the Commission  
12 for these two extra opportunities on the 14th and  
13 the 23rd. Those are not normally part of the  
14 Commission process, and we'll avail ourselves to  
15 those opportunities.

16 HEARING OFFICER FAY: That's right.

17 MR. HARRIS: Yes, we are ready to  
18 proceed.

19 HEARING OFFICER FAY: Okay.

20 MR. HARRIS: I'd ask that the witness be  
21 sworn. Our TSE witness is Mr. Stephen Miller.

22 HEARING OFFICER FAY: Please swear the  
23 witness.

24 //

25 //

1 Whereupon,

2 STEPHEN S. MILLER

3 was called as a witness herein, and after first  
4 having been duly sworn, was examined and testified  
5 as follows:

6 DIRECT EXAMINATION

7 BY MR. HARRIS:

8 Q Mr. Miller, could you please state your  
9 name for the record and spell it for the court  
10 reporter?

11 A My name is Stephen Scott Miller, that's  
12 S-t-e-p-h-e-n S-c-o-t-t Miller, M-i-l-l-e-r.

13 Q And what subject matter testimony are  
14 you here to sponsor today?

15 A Transmission system engineering.

16 Q And were the documents that you've  
17 identified as part of your testimony previously  
18 identified in section 1D of your prefiled  
19 testimony?

20 A They were.

21 Q Those documents are, moving through  
22 them, exhibit 1, exhibit 13, exhibit 14, exhibit  
23 17, exhibit 18, exhibit 24, exhibit 38, exhibit  
24 23, exhibit 30. And I understand that there's one  
25 addition to your testimony, is that correct?

1           A     That's correct.

2                     MR. HARRIS:  And that would be exhibit  
3     27 as an addition.  In terms of new documents we  
4     have applicant's group 3C testimony, which is for  
5     TSE/LSE and alternatives.  I'd ask that that be  
6     given a number at this time.

7                     HEARING OFFICER FAY:  That will be  
8     exhibit 153.  And let me interrupt you, Mr.  
9     Harris, just a moment, to call attention to the  
10    newest version of the exhibit list.  Where is  
11    that -- we have a pile over here.  So I encourage  
12    the parties to get ahold of that.  It might help  
13    them in preparing their arguments.

14                    All right, that last one is exhibit 153.

15                    MR. HARRIS:  Okay.  The next new  
16    document is the applicant's group 3C testimony for  
17    TSE/LSE and alternatives, the errata sheet.  I'd  
18    ask that be given a number.

19                    HEARING OFFICER FAY:  Exhibit 154.

20                    MR. HARRIS:  And applicant's group 3  
21    rebuttal testimony on LSE, TSE and alternatives is  
22    a new document.

23                    HEARING OFFICER FAY:  Exhibit 155.

24    BY MR. HARRIS:

25                    Q     Now, Mr. Miller, were there any

1 corrections, changes or clarifications to your  
2 testimony?

3 A None.

4 Q And were the documents prepared either  
5 by you or at your direction?

6 A They were prepared by me or under my  
7 direction, yes.

8 Q Are the facts stated therein true to the  
9 best of your knowledge?

10 A They are.

11 Q Are the opinions stated therein your  
12 own?

13 A Yes, they are mine.

14 Q And do you adopt this as your testimony  
15 for this proceeding?

16 A I do.

17 Q Could you briefly review your  
18 professional and educational qualifications,  
19 please.

20 A Yes, I was educated at the University of  
21 Michigan; my last degree there was a professional  
22 degree called electrical engineer.

23 I have over 20 years of experience in  
24 transmission planning and engineering. Part of  
25 that is involved with developing software for

1 analyzing transmission systems and the other part  
2 of it is actual practice in planning and  
3 engineering.

4 I am employed by Commonwealth Associates  
5 in Jackson, Michigan; and I am a registered  
6 professional engineer in the State of Michigan.

7 Q Thank you. In the interest of time, can  
8 you provide a very short summary of your testimony  
9 on TSE, please?

10 A I can. I had the pleasure of designing  
11 this particular transmission interconnection.  
12 It's one of simplest that I've ever designed. We  
13 plan to interconnect to the Metcalf number 4 230  
14 kV line which interconnects to Monte Vista.

15 We'll loop in at one tower, in other  
16 words one circuit will go to the substation and  
17 another circuit coming back out of the substation.

18 The interconnection will be made at the  
19 Tulare Hill north of the plant site. The  
20 interconnection crosses no territory other than  
21 that of the applicant and PG&E's easement. PG&E,  
22 the ISO and the CEC Staff have all concluded that  
23 the proposed interconnection will comply with all  
24 laws, ordinances, regulations and standards, and  
25 will have no negative impact on the rest of the

1 system, as we'll discuss in our local systems  
2 effect testimony. In fact, it has a large  
3 positive impact on the transmission system.

4 One indication of the viability of this  
5 transmission interconnection is the final approval  
6 by the ISO for interconnection.

7 Q Does the project comply with all  
8 applicable LORS, laws, ordinances, regulations and  
9 standards?

10 A It does.

11 Q And have you reviewed the conditions of  
12 certification in the FSA?

13 A Yes.

14 Q Do you find them to be acceptable?

15 A They are.

16 MR. HARRIS: I would make the witness  
17 available for cross-examination at this point.

18 HEARING OFFICER FAY: All right. Staff?

19 MR. RATLIFF: No.

20 HEARING OFFICER FAY: No questions. San  
21 Jose.

22 CROSS-EXAMINATION

23 BY MS. DENT:

24 Q I want to make sure that I understand  
25 for the record that the interconnection is going

1 to be made to one of the 230 kV lines exiting the  
2 Metcalf substation, is that correct?

3 A That's correct.

4 Q And how many 230 kV lines are there  
5 exiting Metcalf other than the Monte Vista line?

6 A There are four. But I should be very  
7 careful with that. There are four potential  
8 circuits. One on the circuits is six-wired right  
9 now.

10 Q Pardon? I'm sorry, I didn't hear what  
11 you said.

12 A One of them is six-wired, which says  
13 that the circuits on each side of the tower are  
14 wired together to save PG&E a breaker.

15 Q And if I understood the engineering  
16 section of this, you're, in effect, constructing  
17 sort of a mini-substation, you're not directly  
18 connecting to the Metcalf PG&E substation, is that  
19 accurate?

20 A The 240-foot line that loops in will  
21 terminate in a substation on the Metcalf site.

22 Q Okay. And in terms of the alternatives  
23 that you looked at for the interconnection,  
24 they're outlined, I think, on page 3 of your  
25 testimony. And they're referenced on page 633 of

1 the FSA.

2 And I just want to understand exactly  
3 where the interconnections that you looked at were  
4 for the alternatives?

5 Alternative one was, I believe, an  
6 interconnection directly to the Metcalf  
7 substation, is that correct?

8 A I can't be sure of the number without  
9 checking, --

10 Q Okay.

11 A -- but that was one of the alternatives  
12 we looked at, yes.

13 Q I think they're on page 3 of your  
14 testimony.

15 A Yes, that was the first one we listed.

16 Q And so that would be -- that alternative  
17 is just basically connecting the very same power  
18 plant directly to the substation instead of to the  
19 transmission line?

20 A That's correct.

21 Q And alternative number two indicates  
22 involves looping into the existing Metcalf/Moss  
23 Landing 500 kV line. Now was there a specific  
24 location where that alternative would have looped  
25 into Metcalf/Moss Landing?

1           A     Our studies never went that far.  We  
2     rejected that alternative before we got that far.

3           Q     So in terms of intersecting the 500 kV  
4     line you really didn't get to a specific location  
5     on it for the interconnect?

6           A     Nor need to, it was easy to reject the  
7     location.

8           Q     And according to the FSA the reasons for  
9     rejecting that were costs and environmental  
10    impacts.  And if you didn't have a specific -- I  
11    can understand how you could do costs, how you  
12    could look at costs regardless of the location.

13                    But I'm having a hard time understanding  
14    how you could look at environmental impacts from  
15    an alternate interconnect if you didn't have a  
16    site for the alternate interconnect.

17           A     We knew the site of the plant and we  
18    knew where the transmission lines were.  And in  
19    order to get to the 500 kV lines you would have to  
20    cross the 230 kV lines.  That would cause, you  
21    know, additional structures.  And therefore  
22    additional impacts.

23                    Also would be a less reliable  
24    interconnection.

25           Q     But again that's looking at an

1 interconnect right there in the vicinity of the  
2 Metcalf substation. That's not looking at an  
3 interconnect somewhere else on the Moss Landing/  
4 Metcalf 500 kV line. I mean that's a very long  
5 500 kV line.

6 A If you can interconnect in 240 feet you  
7 want to try to do it.

8 Q So you're looking at one very close in,  
9 that's all I'm asking.

10 A That's part of it, yes.

11 Q And alternative three, then, is an  
12 interconnect to the other 230 kV line exiting the  
13 substation. I guess that's the other four lines  
14 that we just talked about?

15 A The other three of the four, yes.

16 Q Okay. Sorry. And there's no indication  
17 in the testimony about the rejection, but the  
18 FSA --

19 A Those were rejected because they are  
20 north of the line and you'd have to cross over one  
21 230 kV line to get to the others.

22 Q But again you were only considering an  
23 interconnection very close to the proposed  
24 substation site, you weren't looking at whether or  
25 not an interconnection would be feasible at some

1 other location along those lines.

2 A Not in this portion of our work, but  
3 certainly when we looked at local system effects  
4 we looked at all sorts of different alternatives.  
5 This was -- once the site was determined, i.e.,  
6 the site of Tulare Hill, how do you best  
7 interconnect.

8 Q And the same thing then is true for  
9 alternate four, that's the 115 kV lines exiting  
10 the substation and the indication in the FSA is  
11 that that's a more complex alternative and has  
12 different reliability impacts than intersecting  
13 the 230 kV line?

14 A That's correct.

15 Q And, again, that wasn't -- none of these  
16 alternatives are really site specific in terms of  
17 the interconnect except that they are the way the  
18 alternatives were viewed for transmission system  
19 engineering keyed into being very near the  
20 proposed substation site?

21 A They're site specific in the sense that  
22 once you pick the site for the power plant as it  
23 is, then these are the interconnections that  
24 present. We're not talking about alternatives  
25 here in the sense that we're going to talk about

1           them tomorrow.

2           Q     Okay.

3           MS. DENT:  I think that's all I have,  
4           thank you.

5           HEARING OFFICER FAY:  Okay, thank you.  
6           Santa Teresa.

7           MS. CORD:  No, we don't have anything.  
8           I think it was only for LSE.

9           HEARING OFFICER FAY:  Okay.  Issa.

10          MR. AJLOUNY:  Yeah.

11                                   CROSS-EXAMINATION

12          BY MR. AJLOUNY:

13           Q     Couple questions.  In the, I think it  
14           was the first alternative, the way I understand  
15           it, the way you're going to connect to that  
16           substation, Metcalf substation, you have three  
17           connections, two from the generators and one from  
18           the what, steam generator?  I'm maybe not using  
19           the technical terms, but three connections, right?  
20           Three wires going to the substation?

21                           I don't want to have to look up the  
22           page.  Are you with me on that?  You're looking  
23           like you're --

24           A     No.  No, I'm not with you.

25           Q     Okay.

1           A     There are three connections to the MEC  
2     substation.

3           Q     That's what I was -- okay. That's what  
4     I was talking about. Metcalf substation that's  
5     here today.

6           A     The Metcalf Energy Center substation.  
7     There are three connections from the generator to  
8     the Metcalf Energy Center substation.

9           Q     Okay, then that's probably where my  
10    confusion was. Is you have a power plant and then  
11    you have a substation on site at the Tulare Hill?

12          A     That's correct.

13          Q     Okay, then there's three wires going  
14    from that substation that ties straight into the  
15    substation of Metcalf --

16          A     No, not three wires. There are  
17    essentially two wires, one --

18          Q     Okay, three --

19          A     -- that connects into the circuit to  
20    Metcalf, and the other that connects in the  
21    circuit to Monte Vista.

22          Q     Okay, is there any other facilities  
23    going to be built at the Metcalf substation that's  
24    there today?

25          A     No.

1 Q Or is it just connections, just --

2 A No. As long as you exclude monitor  
3 things like relays, upgrades and that sort of  
4 thing.

5 Q Okay.

6 MR. AJLOUNY: That's all I have.

7 HEARING OFFICER FAY: Okay. Mr.  
8 Williams, you indicated no questions, I believe,  
9 on TSE -- not here.

10 Okay, Mr. Garbett. And these are only  
11 questions regarding transmission system  
12 engineering.

13 MR. GARBETT: Yes.

14 CROSS-EXAMINATION

15 BY MR. GARBETT:

16 Q Your registered professional engineering  
17 degree, does that state have reciprocity with  
18 California?

19 A Reciprocity? Michigan has a form of  
20 reciprocity. The laws vary between state to  
21 state.

22 Q I understand. Is your licensed  
23 recognized by California under that standard?

24 A I'm a registered engineer in Michigan.

25 Q I understand.

1 MS. CORD: Can we get an answer to the  
2 question?

3 INTERVENOR: He's avoided that.

4 MS. CORD: Well, ask him to answer the  
5 question.

6 (Parties speaking simultaneously.)

7 BY MR. GARBETT:

8 Q Okay, with the transmission lines you  
9 assume that they are just going to go up the hill  
10 aerial. Did you consider undergrounding them?

11 A The connection is 240 feet -- the basic  
12 transmission lines are already there. We're  
13 connecting at a single tower that already exists.

14 Q Have you considered undergrounding these  
15 transmission lines in any of your studies?

16 A There would be no point to  
17 undergrounding these 240 feet unless you want to  
18 dig up Fisher Creek.

19 Q Did you do any studies other than one  
20 basic aerial connection at all?

21 A Yeah, we studied all the alternatives  
22 that were listed in the application and the FSA,  
23 all of those basic fundamental interconnections.

24 An interconnection underground doing the  
25 loop connection doesn't make any sense, because

1 you would be tearing up Fisher Creek to put in an  
2 underground connection for 240 feet of connection.

3 Q Did you consider EMI effects?

4 A EMF, electro --

5 Q Yes.

6 A Yes. Absolutely. There's a large  
7 section in the AFC.

8 Q If underground connection had been used  
9 for this segment would EMF have been appreciable?

10 A Normally a solid dielectric  
11 interconnection underground has a higher EMF than  
12 an overhead connection.

13 Q Okay. Which point are you looking at,  
14 per equivalent distance? Or are you considering  
15 someone standing on the ground directly over an  
16 underground as opposed to having wires directly  
17 over his head? Is that what you're thinking of?

18 A For a person in the same position  
19 relative to the right-of-way, the EMF for a solid  
20 dielectric connection would be higher. But,  
21 again, to take and put 240 feet of connection  
22 underground through a creek that you're trying to  
23 maintain makes no sense.

24 Q Okay.

25 HEARING OFFICER FAY: Mr. Garbett, do

1 you have anything more on EMF, because this was  
2 addressed under transmission line nuisance and  
3 safety.

4 MR. GARBETT: I'm getting close here.

5 HEARING OFFICER FAY: I'm sorry, what?  
6 What is your answer?

7 MR. GARBETT: I'm getting close to  
8 finishing if you'll --

9 HEARING OFFICER FAY: Well, it's --

10 MR. GARBETT: -- just permit me to.

11 HEARING OFFICER FAY: -- not really  
12 relevant to this topic because the Commission  
13 addressed this under the topic of transmission  
14 line safety and nuisance. That's where we talk  
15 about that, that's where we focus on it. So, your  
16 questions are not relevant to this topic.

17 MR. GARBETT: Well, I feel that you fail  
18 to see where I'm going with my questions, and a  
19 few questions I'll be through and you'll --

20 HEARING OFFICER FAY: Okay, if you could  
21 tighten it up --

22 MR. GARBETT: -- know exactly where --

23 HEARING OFFICER FAY: -- a little bit so  
24 we understand where you're headed.

25 MR. GARBETT: Okay.

1 BY MR. GARBETT:

2 Q Do underground transmission lines have  
3 the problem with bird strikes?

4 A No.

5 Q Did you consider rather than running up  
6 the hill to the nearest transmission towers, did  
7 you consider going to the nearest substation in a  
8 direct line of sight route across Monterey Road,  
9 across into the Metcalf Center?

10 A Yes.

11 Q Did you have any figures or any studies  
12 that you completed on that?

13 A Yes. That would be, that connection  
14 would be problematic in addition to requiring  
15 undergrounding under Monterey Highway and the  
16 creek. There were issues of space considerations  
17 in the existing Metcalf substation. In other  
18 words, we don't think we could fit it in.

19 Q Does that mean that if this was the only  
20 option you could go on that Metcalf would not be a  
21 viable power plant then?

22 A If which were the only option?

23 Q Are there transmission towers on the  
24 Metcalf site?

25 A I don't believe there are any on the

1 site, itself, no.

2 Q Okay. In the diagrams on the visuals  
3 that was presented there were two 74-foot H-shaped  
4 towers. Are those the ones that will be used?

5 A Those are exit structures from the  
6 Metcalf Energy Center substation.

7 Q Okay. Are exit structures commonly  
8 referred to by the public as transmission towers,  
9 since they look the same to them?

10 A No, I don't think you would call this a  
11 transmission tower. I mean it's hard to say what  
12 a layperson might think, but I don't think -- I  
13 think you would identify this, if you could  
14 identify it at all, you would identify it as a  
15 part of the substation.

16 Q Do you have transformers on the Metcalf  
17 site between your equipment and the transmission  
18 lines that go up the hill?

19 A There are step-up transformers that step  
20 up between the 18 kV, I believe, and the 230 kV.

21 Q Is there any means of line isolation  
22 built in the design of these transformers?

23 A Yes, the switchyard has switches and  
24 breakers that isolates it from the system.

25 Q Okay. Do you have anything like a

1 hybrid transformer windings in order to provide  
2 isolation?

3 A I don't understand the question.

4 Q Well, hybrid transformers are used when  
5 you want to go and isolate something so that  
6 reflected loads do not come back and destabilize  
7 the present station that you're working on.

8 A I think you're making a reference to  
9 radio engineering. That wouldn't apply here.

10 Q I'm afraid it goes far beyond radio  
11 engineering; it's used in the power industries,  
12 also.

13 MR. GARBETT: That concludes my  
14 questions.

15 HEARING OFFICER FAY: Thank you. Mr.  
16 Ratliff, do you have a panel to present? Oh, I'm  
17 sorry, Mr. Harris, any redirect?

18 MR. HARRIS: No, thank you.

19 MR. RATLIFF: We have the staff witness  
20 Ms. Linda Davis, and we have an addition, we're  
21 sponsoring the ISO witness Mr. Peter Mackin. They  
22 filed separate testimony. I'll direct them  
23 separately, and then turn them over for cross-  
24 examination as a panel.

25 HEARING OFFICER FAY: Okay, please swear

1 the witnesses.

2 MR. AJLOUNY: This might be a good time  
3 for those questions I had.

4 HEARING OFFICER FAY: Well, let's just  
5 finish this section, the transmission system  
6 engineering, and then we can take --

7 MS. DENT: I have a question for the  
8 staff on that. Just so that I can follow along  
9 and know what we're doing, I don't have Mr. -- I  
10 have two transmission system engineering people  
11 for testimony, Linda Davis and Al McCuen. Is that  
12 what you just said?

13 MR. RATLIFF: No. I said that I have  
14 the testimony of Linda Davis. Al McCuen's name is  
15 also on that testimony, he's not here today. Ms.  
16 Davis is sponsoring that testimony.

17 I have a separate piece of testimony  
18 from the ISO witness, Mr. Peter Mackin.

19 MS. DENT: I show that Mr. Mackin's  
20 testimony is under local system effects, not  
21 transmission --

22 MR. RATLIFF: He has testimony there,  
23 also.

24 MS. DENT: So he didn't file testimony  
25 then on transmission system engineering?

1 MR. RATLIFF: No, he did on October  
2 11th.

3 MS. DENT: Can you direct me to the  
4 exhibit then that that testimony is so I can --

5 MR. RATLIFF: It has not yet been made  
6 an exhibit and we will do that momentarily. Okay.  
7 Would you like to mark that for exhibit now?

8 MS. DENT: Has it been provided? I'm  
9 just, I'm --

10 MR. RATLIFF: It has been provided. It  
11 was provided in October.

12 MS. DENT: Okay.

13 HEARING OFFICER FAY: Okay. Mr.  
14 Ratliff, why don't you just go ahead with your  
15 presentation. We'll ask that the witnesses be  
16 sworn.

17 Whereupon,

18 LINDA DAVIS and R. PETER MACKIN  
19 were called as witnesses herein, and after first  
20 having been duly sworn, were examined and  
21 testified as follows:

22 DIRECT EXAMINATION

23 BY MR. RATLIFF:

24 Q Ms. Davis, are you the witness for staff  
25 who prepared the testimony titled transmission

1 system engineering that is part of the final staff  
2 assessment?

3 A Yes, I am.

4 Q Is that testimony true and correct to  
5 your knowledge and belief?

6 A Yes, it is.

7 Q Can you explain in a couple of words  
8 what your duties and responsibilities are on the  
9 staff?

10 A Yes. My duty is to prepare the  
11 transmission system engineering analysis which  
12 indicates whether or not the transmission  
13 facilities associated with the proposed project  
14 conform to all applicable laws, ordinances,  
15 regulations and standards that are required for  
16 safe and reliable electric power transmission.

17 Q Ms. Davis, will this transmission line  
18 be sited in conformity, the connecting line to  
19 this facility sited in conformity with the CPUC's  
20 GEO95?

21 A Yes. Upon review of all technical  
22 analysis that I have received related to the  
23 project I find that interconnection to the Metcalf  
24 Energy Center project to the grid now owned by  
25 PG&E and operated by the ISO will meet all

1 applicable reliability criteria.

2 Q Does it need any additional facilities  
3 to be reliably interconnected?

4 A No, it requires no downstream  
5 facilities. The only transmission facilities  
6 required is a short interconnection from the plant  
7 for the Metcalf to Monte Vista 230 kV line.

8 Q Thank you.

9 MR. RATLIFF: I have no other questions.  
10 I would now like to proceed with Mr. Mackin before  
11 these witnesses become available.

12 DIRECT EXAMINATION

13 BY MR. RATLIFF:

14 Q Mr. Mackin, could you explain very  
15 briefly your responsibilities with the Cal-ISO?

16 A Yes, I can. I am responsible for  
17 reviewing transmission plans of the transmission  
18 owners to make sure that they will -- that the  
19 transmission system will meet reliability  
20 criteria.

21 And I'm also responsible for reviewing  
22 generator interconnection analyses to make sure  
23 that the generators can be interconnected to the  
24 grid reliably. And in addition I'm also  
25 responsible for developing long-term grid planning

1 policy and new facility connection policies.

2 Q Did you prepare a piece of testimony  
3 that is dated October 9th, entered in dockets  
4 October 10th, year 2000, titled, transmission  
5 system reliability testimony?

6 A Yes, I did.

7 Q Is that testimony true and correct to  
8 the best of your knowledge and belief?

9 A Yes, it is.

10 Q In your opinion can this power plant be  
11 reliably interconnected with the rest of the  
12 existing system?

13 A Yes.

14 Q Will it meet all applicable criteria  
15 from the WSCC, NERC and the Cal-ISO?

16 A Yes, it will.

17 Q Are there any additional facilities that  
18 would be needed for this interconnection to occur?

19 A Nothing other than the connection from  
20 the power plant switchyard to the Metcalf Monte  
21 Vista line.

22 MR. RATLIFF: I have no further  
23 questions. These witnesses are available.

24 HEARING OFFICER FAY: All right. Before  
25 we get into the cross-examination perhaps we could

1 mark their testimony for exhibit.

2 MR. RATLIFF: I believe this is 156.

3 HEARING OFFICER FAY: The next number is  
4 156. And that is Mr. Mackin's testimony. Ms.  
5 Davis' testimony is part of the FSA, I believe?

6 MR. RATLIFF: Yes.

7 HEARING OFFICER FAY: Mr. Mackin's  
8 testimony, filed October 10th, is titled,  
9 transmission system reliability testimony, signed  
10 by Peter Mackin, and that is exhibit 157 -- I'm  
11 sorry, 156.

12 MR. RATLIFF: 156, yes.

13 HEARING OFFICER FAY: Is the panel  
14 available?

15 MR. RATLIFF: They are.

16 HEARING OFFICER FAY: Mr. Harris, any  
17 cross?

18 MR. HARRIS: No questions.

19 HEARING OFFICER FAY: Okay. City of San  
20 Jose.

21 MS. DENT: Yes, I have a couple of  
22 questions of cross, and then I would like the  
23 opportunity to take a look at the exhibit that's  
24 been filed by Mr. Mackin just real briefly. But I  
25 do have some questions for the staff witnesses.

1                   HEARING OFFICER FAY:  Okay, that was  
2                   filed on October 10th, and so you've had quite a  
3                   few months --

4                   MS. DENT:  It was my understanding that  
5                   testimony that was going to be presented at the  
6                   hearing today was supposed to be refiled.  And  
7                   everyone else has refiled testimony if the  
8                   witnesses were going to verbally present.

9                   So, I'm going to state my request on the  
10                  record.  It'll take me, if it's short it'll  
11                  probably take me five minutes to read it.  You can  
12                  go to the other witnesses if you like.

13                  HEARING OFFICER FAY:  Why don't we defer  
14                  your cross-examination and --

15                  MS. DENT:  And if someone could provide  
16                  me with a copy of it, that would help.

17                  HEARING OFFICER FAY:  All right.  Does  
18                  the staff have an extra copy?

19                  MR. RATLIFF:  I only have my own copy.  
20                  I would only indicate, though, by way of objection  
21                  that testimony is prefiled.  I believe that this  
22                  is an issue that should have been more efficiently  
23                  submitted by declaration.  And at a time when we  
24                  are trying to get on to the issues where people  
25                  want to actually spend a great deal of time cross-

1 examining, we're wasting time.

2 HEARING OFFICER FAY: Well, it certainly  
3 comes out of the time available for local system  
4 effects.

5 Santa Teresa Citizen Action Group, do  
6 you have any questions?

7 MS. CORD: Oh, yeah, I'm sorry. Mr.  
8 Alton will be asking questions.

9 HEARING OFFICER FAY: Oh, Mr. Alton,  
10 you're asking on behalf of the Santa Teresa Group?

11 MR. ALTON: I am --

12 HEARING OFFICER FAY: Okay.

13 MR. ALTON: I take it the transmission  
14 system engineering testimony that we're talking  
15 about -- transmission system engineering testimony  
16 that we're speaking of is on page 627 through 641  
17 of the FSA?

18 MR. MACKIN: Yes.

19 MR. ALTON: And do the figures following  
20 that, there's a project description figure 1,  
21 Metcalf Energy Center regional setting, and the  
22 Metcalf figure 2 and 3, generating configuration,  
23 are those part of the TSE, as well?

24 MS. DAVIS: Yes, they are.

25 MR. ALTON: Okay.

1 CROSS-EXAMINATION

2 BY MR. ALTON:

3 Q Would you look at figure 2 and 3. Where  
4 does it say it's connected to the Metcalf to Monte  
5 Vista line? I really appreciate this  
6 configuration but I don't think it's the one you  
7 talked about.

8 MS. DAVIS: That is a typographical  
9 error. I have no idea why it says new -- however,  
10 that should be Metcalf.

11 MR. ALTON: So this is not an indication  
12 that it could be connected to the new --

13 MS. DAVIS: No, not in any way. It's an  
14 absolute typographical error, which it has been  
15 noted and corrected. Yes, that's right, it should  
16 say Metcalf to Monte Vista.

17 MR. ALTON: Of course, I wouldn't expect  
18 you to point out my typographical errors later on.

19 (Laughter.)

20 MS. DAVIS: Okay, thank you.

21 MR. ALTON: That's all I have.

22 HEARING OFFICER FAY: That's all, okay.

23 Issa, any questions on TSE?

24 MR. AJLOUNY: That's where I was going.

25 MS. DAVIS: Okay, sorry.

1 CROSS-EXAMINATION

2 BY MR. AJLOUNY:

3 Q Is I was getting specific with the  
4 applicant. And what I understand is that new  
5 switchyard on that page of figure --

6 MS. DAVIS: Yes.

7 MR. AJLOUNY: -- 2 and 3, the bottom  
8 figure, when it says new switchyard, that's at the  
9 site?

10 MS. DAVIS: That's on the project  
11 property.

12 MR. AJLOUNY: On the project property.  
13 And then you have two wires going out from there,  
14 right?

15 MS. DAVIS: That's right.

16 MR. AJLOUNY: You got two physical wires  
17 going on a pole, and it's going to physically  
18 connect to the top of another pole, I mean to some  
19 wires?

20 MS. DAVIS: That's correct. Now, you  
21 must understand when we're saying two wires, we're  
22 meaning two circuits. But when you look on the  
23 towers they each have three wires. So it's six  
24 wires.

25 MR. AJLOUNY: Okay. One wire, three

1 phases, or whatever --

2 MS. DAVIS: Right.

3 MR. AJLOUNY: I'm not worried about  
4 that. Let's just, --

5 MS. DAVIS: Okay, good.

6 MR. AJLOUNY: -- for simplicity, two  
7 wires.

8 MS. DAVIS: Okay.

9 MR. AJLOUNY: Okay. One wire is going  
10 to connect -- is it the type of thing where you,  
11 just to be simplistic here, you snip the wire  
12 between Metcalf substation in Monte Vista, open it  
13 up and then put one wire there and one wire there?

14 MS. DAVIS: That's correct.

15 MR. AJLOUNY: That's exactly how you do  
16 it?

17 MS. DAVIS: Um-hum.

18 MR. AJLOUNY: So, good, so I'm not going  
19 to go into alternatives, but just to help my mind  
20 because I've been hearing for two years now it's  
21 being put there because of the substation, okay,  
22 the power plant.

23 So, would there be any difference that  
24 you know of in what you know today, and we can go  
25 there with LSE, but what you know today if we

1 moved that one mile away from Metcalf, snip that  
2 wire and connected it there? You know, just  
3 hypothetically. Is there any difference?

4 MS. DAVIS: Yes. You would need to put  
5 extra wire on there, --

6 MR. AJLOUNY: On where?

7 MS. DAVIS: -- a long way, a mile. If  
8 you moved the interconnection a mile away you'd  
9 have to have it a mile --

10 MR. AJLOUNY: No, okay, I'm sorry --

11 MS. DAVIS: -- circuit --

12 MR. AJLOUNY: -- I wasn't being --

13 MS. DAVIS: And new towers every --

14 MR. AJLOUNY: Correct. Let's say we  
15 move the power plant a mile down the road,  
16 hypothetically.

17 MS. DAVIS: Right.

18 MR. AJLOUNY: Snip the wire, you know,  
19 build the power plant ten feet away from the  
20 wires; snip the wire, have ten feet of wire, you  
21 know, connecting.

22 Would there be any difference in that  
23 sense? I mean would you get the same effect? I  
24 don't know if I'm crossing a line here in local  
25 system effects, but --

1 MS. DAVIS: Well, yes, you are, I'm  
2 afraid, because that --

3 MR. AJLOUNY: Okay.

4 MS. DAVIS: -- scope of TSE. Once you  
5 get beyond --

6 MR. AJLOUNY: Okay.

7 MS. DAVIS: -- 100 feet or --

8 MR. AJLOUNY: All right.

9 MS. DAVIS: -- so, then you're actually  
10 into another analysis.

11 MR. AJLOUNY: Okay, then just stating,  
12 just in your topic area, hypothetically we can  
13 move that power generation up and down from  
14 Metcalf Energy Center to Monte Vista, and, okay,  
15 hypothetically move it up and down that line, and  
16 physically do the same connection the same way  
17 that way you know it today that it's proposed.  
18 Nothing to do -- I'm not asking you will it have  
19 the same effect on the grid and all that, I'm just  
20 asking you --

21 MS. DAVIS: Right, anywhere that it's  
22 240 feet it would be about the same.

23 MR. AJLOUNY: Okay. So basically, so  
24 you move it up near Saratoga, snip that wire 240  
25 feet, connect it, in your expertise it's no

1 difference for your part?

2 MS. DAVIS: Well, for this part of my  
3 testimony, no. Of course, that would require a  
4 whole new analysis.

5 MR. AJLOUNY: Okay. And then on another  
6 topic, just so I understand, Peter Mackin's  
7 testimony, you talked about October of last year  
8 was presented --

9 MR. MACKIN: It was filed.

10 MR. AJLOUNY: -- filed. I missed that,  
11 too. I always understood that when you're --  
12 you're supposed to file testimony and all that,  
13 and from the way I understood it from your hearing  
14 order and everything, it was Al McCuen --

15 HEARING OFFICER FAY: I'm reading from  
16 the hearing order. It says, Davis/McCuen and then  
17 a colon :Mackin/Jaske/Rohrer. It's all listed for  
18 the staff.

19 MR. RATLIFF: His testimony was filed  
20 concurrently with the final staff assessment.

21 HEARING OFFICER FAY: I mean you've had  
22 the staff assessment the same amount of time.

23 MR. AJLOUNY: I understand that. Is it  
24 part of the FSA? I'm just a little confused here.

25 MR. RATLIFF: It's not part of the FSA

1           because the ISO has typically contributed their  
2           own set of testimony separately from the FSA. So  
3           it has, in all the cases that I'm familiar with,  
4           the ISO has testified separately, but filed their  
5           testimony on transmission system engineering at  
6           the same time that the FSA is filed.

7                         And that was the case here, as well.

8                         MR. AJLOUNY: Okay, but the way we  
9           understand it, though, when we go into hearings  
10          whether you talked about it before, you, you know,  
11          after the FSA's out, the FSA's the staff's  
12          testimony, but anyone else joining should say  
13          here's my testimony and this and that.

14                        I mean I'm saying simple words here,  
15          but --

16                        MS. DAVIS: I believe the ISO, it's  
17          required as a condition of the TSE analysis that  
18          we, it's a part of the conditions. They aren't a  
19          part of the testimony, TSE testimony, but in the  
20          TSE testimony we ask for these interconnection  
21          studies and interconnection approvals.

22                        So, it's in response to our request that  
23          he submit his testimony.

24                        MR. AJLOUNY: Well, for the record,  
25          Commissioners, I just think that's --

1 MS. DAVIS: If there's a change --

2 MR. AJLOUNY: -- irregular from what our  
3 perception was --

4 MS. DAVIS: If there's a change now then  
5 he'll have to resubmit it continuously all the way  
6 until final --

7 MR. AJLOUNY: But your --

8 PRESIDING MEMBER LAURIE: Ms. Davis, I  
9 want you to defer discussion to the Committee,  
10 please. Point being, the testimony was prefiled,  
11 was it not?

12 MR. RATLIFF: Yes, and served on all  
13 parties.

14 PRESIDING MEMBER LAURIE: There's no  
15 requirement that it be filed again. It was just  
16 filed earlier.

17 MR. AJLOUNY: So, for example, local  
18 system effects that was filed by Dave Marquis,  
19 will we be able to refer to that in our brief?

20 HEARING OFFICER FAY: He has not  
21 sponsored it into evidence, so --

22 MR. AJLOUNY: But he put it in the  
23 dockets. Or he, it was something, I don't know --

24 HEARING OFFICER FAY: He has not  
25 introduced it into evidence, or CVRP is apparently

1 not going to introduce it into evidence.

2 MR. AJLOUNY: But the fact is it is  
3 somewhere in the record filed --

4 HEARING OFFICER FAY: Issa, all these  
5 discussions --

6 MR. AJLOUNY: Okay, fine.

7 HEARING OFFICER FAY: I mean if they're  
8 just procedural, maybe we could have them at a  
9 different time. For your sake I'd like to get  
10 through taking the evidence and give you more time  
11 to cross-examine on these things.

12 MR. AJLOUNY: -- curve balls.

13 HEARING OFFICER FAY: Mr. Williams, did  
14 you have any questions of the staff?

15 MR. WILLIAMS: None at this time.

16 HEARING OFFICER FAY: Okay, and Mr.  
17 Garbett.

18 CROSS-EXAMINATION

19 BY MR. GARBETT:

20 Q Yes, does the witness understand the  
21 difference between EMI and EMF, because you've  
22 written something about it in your testimony  
23 previously?

24 MS. DAVIS: I'm sorry, I do not deal  
25 with EMF in my testimony. That's a matter of

1 public safety, transmission safety and nuisance.

2 MR. GARBETT: Okay. Is there a  
3 condition in the FSA regarding EMI in a monitoring  
4 program?

5 MS. DAVIS: I'm sorry, would you repeat  
6 that?

7 MR. GARBETT: Is there a monitoring  
8 program in the FSA regarding EMI radio, television  
9 interference --

10 MS. DAVIS: I don't speak to that, sir,  
11 I don't handle --

12 MR. GARBETT: You don't speak to --

13 MS. DAVIS: -- handle EMF or EMI in my  
14 testimony.

15 MR. GARBETT: Okay. On the transmission  
16 wires that will interconnect with the Metcalf  
17 station, will there be anything other than 60  
18 cycle power transmitted over those lines, such as  
19 telemetry to control the circuits?

20 MS. DAVIS: Whether there is or isn't is  
21 not a part of my testimony.

22 MR. GARBETT: Okay. Above the  
23 transmission lines will there be a safety ground  
24 above them, or a fiberoptic communication line or  
25 anything else that will embellish it, other than,

1 as you said, six wires?

2 MS. DAVIS: We're not, in our staff  
3 testimony for this area, we're not required to be  
4 concerned with the ancillary facilities such as  
5 communications wires being on -- which are on  
6 existing towers.

7 MR. GARBETT: If it's done over these  
8 same wires, or arrangements of wires, I would  
9 believe that it would be essential for you to have  
10 considered this as far as some of the costing, as  
11 well as other factors that enter this.

12 HEARING OFFICER FAY: You're testifying,  
13 Mr. Garbett, it's time for questions.

14 MR. GARBETT: Okay. Specifically, if  
15 you are the same distance from an aerial wire and  
16 the same distance from a wire that has been  
17 undergrounded, which would have the greatest  
18 magnetic effect?

19 HEARING OFFICER FAY: I'm not going to  
20 allow that question. She's already explained that  
21 she did not address that in her testimony.

22 MR. GARBETT: Okay. Did you do any  
23 studies other than a connection with the Hetch  
24 Hetchy, such as a connection to the Metcalf  
25 substation directly across Monterey Road?

1 MS. DAVIS: I don't understand the  
2 question.

3 MR. GARBETT: Okay. We have the Metcalf  
4 Energy Center and it is located in the area  
5 because it is close to transmission lines and the  
6 Metcalf substation which is run by PG&E. Did you  
7 consider running wires directly from the Metcalf  
8 Energy Center to the Metcalf substation without  
9 interconnecting through the wires on the top of  
10 the hill, a direct line of sight?

11 MS. DAVIS: Yes, a radial tie was  
12 included in the analysis.

13 MR. GARBETT: Is there any other power  
14 lines that are going to be connected into the  
15 Metcalf Energy Center or would they be scabbing  
16 power off this intertie that they're using to run,  
17 shall we say, the 60 cycle low voltage lighting  
18 and such other things --

19 MS. DAVIS: I don't understand that  
20 question.

21 MR. GARBETT: Okay. To run their  
22 regular lighting, hand tools and other such things  
23 around the Metcalf Energy Center, where would they  
24 obtain that source of power? Would it be from the  
25 transmission lines that's --

1 MS. DAVIS: I'm not required to study  
2 that as part of my testimony.

3 MR. GARBETT: Okay. Was the staff, in  
4 general, maybe not your specific testimony, did  
5 they approach these issues?

6 MS. DAVIS: You'll have to ask someone  
7 else.

8 CHAIRMAN KEESE: We're talking  
9 transmission here.

10 MR. GARBETT: I know, I know.

11 CHAIRMAN KEESE: So, it's irrelevant to  
12 transmission.

13 MR. GARBETT: Well, the transmission  
14 towers can be used as a source of power on a back  
15 feed as well as a forward feed on generation  
16 depending on the time of use. Are you familiar  
17 with that? Okay.

18 Would these transmission lines be used  
19 for that?

20 MS. DAVIS: I don't, I'm not required to  
21 give an analysis of onsite power during  
22 construction.

23 MR. GARBETT: Or even after construction  
24 is over?

25 MS. DAVIS: I don't understand your

1 question.

2 MR. GARBETT: Okay.

3 MS. DAVIS: I don't understand your line  
4 of reasoning or how it's related to --

5 CHAIRMAN KEESE: Mr. Garbett, we're  
6 talking about --

7 MR. GARBETT: Okay, --

8 (Parties speaking simultaneously.)

9 CHAIRMAN KEESE: Not talking about  
10 anything other than the transmission line.

11 MR. GARBETT: Okay, that is exactly what  
12 I'm trying to get to, is the use of the full  
13 function of those transmission lines and the  
14 direction for putting them aerial as opposed to  
15 underground and one route as opposed to another.  
16 I think these are relevant issues.

17 CHAIRMAN KEESE: On the transmission  
18 line, yes.

19 MR. GARBETT: Yes. Those are what all  
20 my questions are bearing upon.

21 MS. DAVIS: Underground wasn't  
22 considered in the options, and I would not -- I  
23 would agree that they would probably may have been  
24 considered, or could have been considered, but  
25 they would not be appropriate for this interconnection.

1                   MR. GARBETT: Is that a judgment you've  
2                   made as a witness, then?

3                   MS. DAVIS: Yes.

4                   MR. GARBETT: Okay. Is there any  
5                   situation where undergrounding would be  
6                   appropriate?

7                   MS. DAVIS: There have been several,  
8                   very few generation ties that have been  
9                   undergrounded. It's technically feasible.  
10                  Generally I would say it's not the preferable  
11                  option from the engineering standpoint.

12                  MR. GARBETT: Well, I'll just make the  
13                  statement there as --

14                  HEARING OFFICER FAY: No, no statements.  
15                  This is just the time for cross-examination.

16                  MR. GARBETT: -- the question here. I  
17                  guess I'm being limited here in my questioning,  
18                  and what I can do is basically, like the previous  
19                  witness, this witness doesn't want to answer any  
20                  specific questions. And so I'm going to have to  
21                  terminate because I'm being on the direction of  
22                  what I was getting to, which is a material  
23                  consideration, I am unable to achieve that line of  
24                  questioning. Thank you.

25                  HEARING OFFICER FAY: Okay. And, San

1 Jose, back to you.

2 MS. DENT: Thank you very much and I  
3 appreciate the opportunity to look at Mr. Mackin's  
4 testimony, so I'll start with that.

5 CROSS-EXAMINATION

6 BY MS. DENT:

7 Q And I'm looking at the bottom of page 3  
8 of your testimony, indicating that the PG&E  
9 detailed facility study identified potential  
10 violations of reliability criteria that would  
11 require reconfiguration of the various items.

12 And then indicating for less probable  
13 contingencies, operating solutions are acceptable  
14 to mitigate reliability criteria violations.

15 And the operating solutions that you  
16 mention are dropping load, tripping generation, or  
17 implementing a remedial action scheme.

18 So, if I understand, for these types of  
19 contingencies, the buss section outages and single  
20 line to ground faults with default clearing, you  
21 might, the plant might have to drop load or  
22 implement remedial actions or trip generation, is  
23 that your testimony?

24 MR. MACKIN: No, it isn't.

25 MS. DENT: So would you --

1                   MR. MACKIN:  What we've found was that  
2                   there were no reliability impacts to the  
3                   interconnection that were not already existing on  
4                   the system.  So the generator did not create any  
5                   new violations.  So therefore, there were no new  
6                   facilities needed.

7                   MS. DENT:  I understand that from page  
8                   -- that's page 5 of your testimony, I believe.  It  
9                   talks about the existing violations and the  
10                  conclusion that since some reinforcement is  
11                  needed, you do not feel that Calpine should be  
12                  responsible for the reinforcement, even though in  
13                  some cases the addition of MEC does make the  
14                  violation worse, in some cases it makes it  
15                  slightly better.

16                  And I guess my question is I read in  
17                  your testimony, and I'm sorry, I did just read it,  
18                  so I could be reading it incorrectly, I seem to  
19                  read in your testimony that there were two types  
20                  of violations that you found, these less probable  
21                  contingencies which would require operating  
22                  solutions, and these other contingencies for which  
23                  you would normally require mitigation in the form  
24                  of some type of reinforcement, but you weren't  
25                  going to require reinforcement in this case

1 because the violations already existed.

2 So, have I misread your testimony? Were  
3 there only --

4 MR. MACKIN: Well, yes, sort of.

5 MS. DENT: Okay, so there's only one  
6 type of violation, then, that occurs?

7 MR. MACKIN: No. No. The existing  
8 violations that are the more probable ones, the  
9 criteria level B, criteria violations, those  
10 violations, because they're already existing, what  
11 I said was it would not be Calpine's  
12 responsibility. They still have to be fixed. You  
13 can't run the system with violations.

14 So PG&E would need to fix those. But  
15 what we're saying in this testimony is that  
16 because there are already existing violations  
17 they're not -- Calpine doesn't need to pay the  
18 full cost of the reinforcement. Or we don't feel  
19 that Calpine needs to pay the full cost.

20 We can't, technically we cannot order  
21 PG&E to, you know, require or not require Calpine  
22 to do something. But we're just giving our  
23 recommendation here.

24 MS. DENT: I understood that part of  
25 your testimony, and that's again on page 5. I'm

1 specifically still trying to get clarification of  
2 the testimony on page 3 about these less probable  
3 contingencies, the bottom of the page where you  
4 talk about the operating solutions.

5 That appears to me, from just reading  
6 your testimony, to be a different set of potential  
7 problems.

8 MR. MACKIN: Right, but this is just  
9 general what the scope of reliability study is.  
10 It doesn't address any particular criteria  
11 violation that I found in the analysis.

12 The criteria violations are on page 5.  
13 And those are the only ones that I discuss.

14 MS. DENT: Thank you. I have a few  
15 questions for the CEC witness, too, but I wanted  
16 to make sure I get the testimony of that --

17 I want to ask a few questions about  
18 transmission system upgrades on page 631 of your  
19 testimony.

20 Page 631, the middle of the page, you  
21 reference transmission system upgrades that are  
22 planned to be installed by 2003 and are expected  
23 to result in a more robust system to accommodate  
24 the MEC.

25 Can you run through what those

1 transmission system upgrades are that you are  
2 expecting to come on line to help accommodate MEC?

3 MS. DAVIS: I'm sorry, you're slightly  
4 misinterpreting this. I'm saying that the system  
5 will be more robust to accommodate the MEC after  
6 the upgrades, however the MEC does not trigger the  
7 upgrades, nor are the upgrades meant to  
8 accommodate the MEC.

9 MS. DENT: I'm not asking that, I just  
10 asked you could you tell me what upgrades you're  
11 talking about, that was the question.

12 MS. DAVIS: No, I really can't  
13 specifically point out the specific upgrades.  
14 They're generally putting up new wire around the  
15 system. And they're all to accommodate the  
16 increase in load growth in the area.

17 They are all, I believe, within existing  
18 utility corridors. The only exception would be  
19 the addition of the Los Isteros substation, which  
20 I believe -- and Peter is probably more up to date  
21 than I am on these -- I believe will be installed  
22 before the MEC.

23 MR. MACKIN: Right, the Los Isteros is  
24 still scheduled for 2002.

25 MS. DAVIS: Yeah, these system upgrades

1 will help improve and create a more robust system  
2 by the time the MEC gets here.

3 MS. DENT: So, one upgrade that you're  
4 looking at creating a more robust system to  
5 accommodate, I'm using your words, to accommodate  
6 MEC, one upgrade is the Northeast San Jose  
7 Transmission Reinforcement Project, is that the  
8 one you're talking about?

9 MS. DAVIS: That's the title of it, yes.

10 MS. DENT: Okay. And that's a  
11 transmission system upgrade to the more northern  
12 portion of the MEC service area?

13 MS. DAVIS: That's correct.

14 PRESIDING MEMBER LAURIE: Excuse me, Ms.  
15 Davis, was it your testimony that the new lines,  
16 or the additions are being put up to accommodate  
17 MEC? I thought your testimony was --

18 MS. DAVIS: No, sir, I'm sorry. I was  
19 saying that the more robust system will  
20 accommodate the MEC. However, the upgrades are  
21 planned just because of load growth in the area.  
22 Not to accommodate MEC.

23 PRESIDING MEMBER LAURIE: And is MEC  
24 dependent upon those upgrades?

25 MS. DAVIS: No. No.

1 MS. DENT: And I have just a follow-up  
2 question. It's along similar lines. At the top  
3 of page 633 of your testimony, the conclusion that  
4 no significant additional new facilities are  
5 needed to accommodate the MEC.

6 Now, so is it your testimony then that  
7 the only one specifically heard about is the  
8 Northeast San Jose Transmission Reinforcement  
9 Project -- so is it your testimony that regardless  
10 of whether that project goes forward or not the  
11 transmission system will function with MEC input  
12 the same? It makes no difference to the  
13 functioning of the transmission system?

14 MS. DAVIS: In the event there were no  
15 enhancements to the transmission system there  
16 would be no new overloaded circuits generally.  
17 Everything would just be somewhat worse, and some  
18 things would be alleviated by the MEC.

19 However, basically these strengthening  
20 upgrades to the system are required, whether the  
21 MEC is here or not. And the MEC would be  
22 accommodated generally whether or not these  
23 upgrades happen. It just -- be pretty tight.

24 MS. DENT: I'm sorry, I didn't mean to  
25 interrupt. There is no -- I realize this is

1 probably getting -- we'll get into this more with  
2 local systems effect, but I'm having a difficult  
3 time understanding whether or not these planned  
4 upgrades to the transmission system have been  
5 assumed to be in place for the purpose of your  
6 study or not.

7 Did you assume the transmission system  
8 upgrades to be in place or not?

9 MS. DAVIS: Through the course of the  
10 technical analysis the reinforcements were looked  
11 at and not looked at. In other words, a lot of  
12 things were looked at and not looked at. And the  
13 analysis was very comprehensive.

14 And the way the system is to be  
15 configured and the year of the online date for the  
16 MEC, the system is able to adequately handle the  
17 project with no further upgrades.

18 MS. DENT: With even the ones that are  
19 planned in the pike right now, the ones that are  
20 planned to go forward now don't happen --

21 MR. RATLIFF: Objection, --

22 MS. DAVIS: It would not affect the  
23 online date of this project.

24 MS. DENT: And it would not affect the  
25 impact of the project on the transmission system?

1 MR. RATLIFF: Objection, --

2 MS. DAVIS: Right.

3 MR. RATLIFF: -- this has been asked  
4 four times.

5 HEARING OFFICER FAY: Yes, I sustain  
6 that objection. I think we have to move on.

7 MS. DENT: I will be glad to look at the  
8 transcript if you all think you've answered it,  
9 thank you.

10 MS. DAVIS: I understand.

11 MS. DENT: I do have one -- I have a  
12 question but I'm not sure whether it goes to this  
13 area of the testimony or not because of the way  
14 the testimony has been put in, and it's on plant  
15 reliability.

16 Do you think that would be more to local  
17 systems effects?

18 HEARING OFFICER FAY: We're going to  
19 have to rely on the witnesses --

20 MS. DENT: I'm asking.

21 MS. DAVIS: You can ask the question and  
22 I can see what kind of reliability you are  
23 referring to.

24 MR. RATLIFF: If it tests power plant  
25 reliability it is outside the scope of the

1 witness' testimony, so.

2 HEARING OFFICER FAY: Okay, I think  
3 we'll rely on counsel for that, and you can ask it  
4 to the next panel.

5 MS. DENT: Okay, I'll do that, I'll ask  
6 that to the next panel.

7 HEARING OFFICER FAY: Okay.

8 MS. DENT: Thank you.

9 HEARING OFFICER FAY: Okay. Thank you.  
10 Mr. Ratliff, any redirect?

11 MR. RATLIFF: No.

12 HEARING OFFICER FAY: All right. That  
13 concludes the testimony on transmission system  
14 engineering.

15 I think before we get into local system  
16 effects we ought to take a little break. And  
17 before we start we'll let Issa make his comment.

18 (Brief recess.)

19 HEARING OFFICER FAY: Well, my  
20 recommendation would be if there's some statement  
21 made on the 23rd, you need to refer to make  
22 reference in a later brief.

23 MR. WILLIAMS: I would also like to  
24 object, as far as I know I have not been served  
25 with the Fish and Wildlife determination, and no

1       evidentiary hearings have been held on that issue.

2               So I think, as a minimum, the second  
3       group of submittals ought to be delayed until a  
4       reasonable time after the Fish and Wildlife  
5       hearings.

6               MS. DENT: I'm going to make the same  
7       suggestion I made before, which is that the brief  
8       schedule be collapsed. I don't see any need for  
9       it to be in two sets. And I'm sorry, I didn't  
10      write down the dates for the second set, so if you  
11      could repeat those, I'd appreciate it.

12              HEARING OFFICER FAY: Okay, let me just  
13      go over it again briefly, no pun intended.

14              Opening briefs for group 1 and 2 topics,  
15      March 23rd. Reply briefs for those topics, April  
16      4th.

17              Opening briefs for group 3 topic area,  
18      April 12th. And reply briefs for group 3 topic  
19      areas, April 24th.

20              MR. WILLIAMS: And excuse me, could you  
21      comment on how you plan to handle the Fish and  
22      Wildlife determination?

23              HEARING OFFICER FAY: The biological  
24      opinion always comes in on the schedule of the  
25      U.S. Fish and Wildlife Service. They do not

1 always adhere strictly to our schedule. In fact,  
2 they rarely do.

3 And since it's federal requirements, if  
4 their requirements for conditions of certification  
5 are stricter than those contained in the  
6 Commission's decision, the federal requirements  
7 will control.

8 If they're --

9 MR. WILLIAMS: Well, there --

10 HEARING OFFICER FAY: -- not as strict,  
11 the state requirements will control.

12 MR. WILLIAMS: There is an issue related  
13 to the red-legged frog, and whether or not there  
14 is one, and I guess whether or not mitigation  
15 would be required were there to be one.

16 HEARING OFFICER FAY: Yes.

17 MR. AJLOUNY: Bob, were you here during  
18 the biology session?

19 MR. WILLIAMS: I may have missed that if  
20 that was the mid-February hearings, I missed that.

21 HEARING OFFICER FAY: Yes. This was  
22 addressed on the record. The Fish and Wildlife  
23 witness, as I recall, said they did not anticipate  
24 any difference between the requirements proposed  
25 by the staff and what will likely be the final

1 biological opinion. They already have a draft  
2 biological opinion.

3 So the matter has been addressed on the  
4 record.

5 Okay, the other thing we'd like to do  
6 before we start is Issa wanted to make a brief  
7 comment.

8 MR. AJLOUNY: Yeah. One thing, though,  
9 I'd like to, I hate to use the word object, but I  
10 would really like to just turn in all my brief by  
11 April 12th. To do part of it by the 23rd is just,  
12 you know, I have basically not doing much of my  
13 work this week. I got to get to work sometime.

14 I really need April 12th. Is there a  
15 problem, I mean I might have missed it from the  
16 last conversation. I thought we were going to try  
17 to do this all just like everyone turn it in by  
18 the later date. Is it the applicant that --

19 HEARING OFFICER FAY: No, actually what  
20 is driving this is concern for the lay  
21 participants, like yourself. Because some of the  
22 most difficult areas and most controversial areas  
23 are in group 3.

24 This gives more time and it spreads the  
25 load. So that was our concern. We've done it

1 before in previous cases, and spreading it out  
2 like this does allow people to focus more and do a  
3 better job on the briefs.

4 As the briefing order will explain, the  
5 purpose of the briefs is to present logical  
6 arguments in support of your position; and through  
7 citations to the record, direct the Committee's  
8 attention to evidence which supports your  
9 argument.

10 So it's in your interest to make your  
11 argument clearly and to show where the record  
12 supports your argument. If you don't support it,  
13 then the Hearing Officer can't do much with it.

14 MR. AJLOUNY: Okay.

15 HEARING OFFICER FAY: So we wanted to  
16 give you time so you can go into the brief --

17 MR. AJLOUNY: That's why I'm asking if I  
18 could just, I'll do it on the 12th. If you can't  
19 do it for everybody, I'm asking for hardship that  
20 it's going to take me to the 12th to do all my  
21 briefs. If everyone else want to do it, fine, but  
22 I -- to do it in what, we're here today now, 11  
23 days to have that first session -- I just feel  
24 overwhelmed by this whole process.

25 HEARING OFFICER FAY: And this briefing

1 schedule is expanded from our normal briefing  
2 schedule. This is a lot more time that we  
3 normally allow for briefs.

4 MR. AJLOUNY: Maybe I --

5 MR. WILLIAMS: Excuse me, I would like  
6 to support Mr. Ajlouny's request. And I would  
7 also like to request permission to submit a  
8 combined brief at the time of the group 3  
9 submittal.

10 PRESIDING MEMBER LAURIE: The Committee  
11 will not permit that. The reason it's being done  
12 the way it is, is to, in fact, allow you more  
13 time, not less time.

14 If you can't do it all, then you  
15 prioritize and concentrate on those areas that you  
16 deem most important.

17 If you want to meet and coordinate your  
18 responses, then I suggest that you do it that way.

19 HEARING OFFICER FAY: And just I want to  
20 make very clear, there is absolutely no  
21 requirement to cover every part of the case. As  
22 the Commissioner said, every party should focus on  
23 the parts of the case that are most significant to  
24 them. If there's something you can live with,  
25 there's no point addressing it.

1                   If the staff and the applicant were in  
2                   agreement on a certain area, and you're  
3                   comfortable with that, don't talk about it. Save  
4                   your time for the things that you are in  
5                   disagreement with.

6                   So, anyway, that is the timing on the  
7                   Committee order. And thank you for your comments.  
8                   We would like to --

9                   MR. WILLIAMS: A new point of --  
10                  HEARING OFFICER FAY: Mr. Williams,  
11                  we've heard from you and I think we're going to  
12                  have to go ahead and take --

13                  MR. WILLIAMS: I would now like to offer  
14                  an objection when testimony is moved into the  
15                  record. You haven't yet moved the testimony from  
16                  our earlier discussions into the record. I don't  
17                  know if --

18                  HEARING OFFICER FAY: No.

19                  MR. WILLIAMS: -- you intend to do that  
20                  now.

21                  HEARING OFFICER FAY: That's certainly a  
22                  reasonable thing to note.

23                  MR. RATLIFF: So moved --

24                  HEARING OFFICER FAY: Mr. Ratliff.

25                  MR. RATLIFF: -- staff's --

1 HEARING OFFICER FAY: Okay, is there  
2 objection to receiving the staff's TSE testimony?

3 MR. WILLIAMS: Yes, there is objection  
4 to receiving Mr. Mackin's testimony because unlike  
5 all the other testimony that has been moved into  
6 the record, this was not presubmitted and noted as  
7 testimony for the record.

8 So if you choose to allow this, then I  
9 think you should choose to allow other material  
10 that has merely been submitted to the docket as  
11 part of the evidentiary record.

12 HEARING OFFICER FAY: Mr. Ratliff, would  
13 you like to respond?

14 MR. RATLIFF: On the contrary, the cover  
15 page states that it's the testimony of Peter  
16 Mackin. It was very clearly marked as testimony,  
17 and it was filed as testimony.

18 It's unfortunate if it was not  
19 acknowledged as such by Mr. Williams.

20 HEARING OFFICER FAY: Right. Apparently  
21 some of the parties mislaid this, but it is  
22 clearly labeled as testimony. And this is how we  
23 typically receive input from the ISO.

24 So, your objection is overruled and we  
25 will receive the testimony of the staff witness

1 Linda Davis, and the testimony of Peter Mackin at  
2 this point in the record.

3 All right, Mr. Harris, are you --

4 MR. AJLOUNY: Wait --

5 HEARING OFFICER FAY: -- prepared to  
6 present your --

7 MR. AJLOUNY: -- I didn't --

8 HEARING OFFICER FAY: -- panel?

9 MR. AJLOUNY: Mr. Fay, I was --

10 HEARING OFFICER FAY: Issa, we had your  
11 comment.

12 MR. AJLOUNY: I never --

13 INTERVENOR: That wasn't his comment.

14 HEARING OFFICER FAY: Oh, that wasn't  
15 your comment?

16 MR. AJLOUNY: No, I'm sorry. I'm sorry  
17 you took it that way. I just -- the concern I  
18 have, and I've talked about this before in other  
19 hearings, is again, all the political pressure  
20 that's going on around this whole Metcalf, not  
21 just all power plant, but the Metcalf Power Plant.

22 And for this to be an independent study  
23 with things -- and hear me out, the State Assembly  
24 resolution 70 to zero, you know. Fred Keeley just  
25 reporting last Friday, and I talked to the

1 reporter that saying that this will be -- he's  
2 talked about Metcalf, and that you two are going  
3 to suggest to override this, using those words, by  
4 talking to the reporter, the Alquist letter, I  
5 don't know if you've got a chance to read  
6 Kisabuli's letter, the political pressure he felt  
7 while he worked with the Commission. Did you have  
8 a chance to read that, Commissioners?

9 PRESIDING MEMBER LAURIE: No, I have  
10 not.

11 MR. AJLOUNY: Have you, Commissioner  
12 Keese?

13 CHAIRMAN KEESE: No.

14 MR. AJLOUNY: Well, he talks about the  
15 political pressure he felt to change his noise  
16 testimony, and signed it. And Calpine's deal that  
17 the Governor has recognized as the Governor pushes  
18 Metcalf they'll get discounted rates.

19 How is this going to be an independent  
20 study, I mean --

21 PRESIDING MEMBER LAURIE: Sir, Mr.  
22 Keeley is quoted as saying what?

23 MR. AJLOUNY: And you can talk to the  
24 report, and I got his name.

25 PRESIDING MEMBER LAURIE: No, no, no,

1 no, no, --

2 MR. AJLOUNY: Okay, --

3 PRESIDING MEMBER LAURIE: -- are you  
4 reading from a newspaper article?

5 MR. AJLOUNY: Yes, but then I talked to  
6 the reporter who has a videotape, organization of  
7 the videotape.

8 PRESIDING MEMBER LAURIE: Okay, well,  
9 just from my perspective I have not spoken nor  
10 communicated with Mr. Keeley nor any other member  
11 of the Legislature on this issue, except for the  
12 letter that you saw that I sent in response to the  
13 leadership letter.

14 And should I ever communicate to a  
15 legislator, you will know about it by a docketed  
16 memo from myself.

17 MR. AJLOUNY: But, the --

18 PRESIDING MEMBER LAURIE: So, to have  
19 Mr. Keeley suggest that I am going to a) or b), he  
20 would simply not have any knowledge. He doesn't  
21 have any knowledge because I don't have any  
22 knowledge. The evidence is not, as yet, closed.

23 MR. AJLOUNY: And I think that's what  
24 concerns us as the public, really concerns me, and  
25 that's why I want to bring it up, is all this

1 political pressure being put on, even if you two  
2 said, yeah, we're not going to override, doesn't  
3 it go before the five people, the five  
4 Commissioners and that three can say yes, we want  
5 to override? Is that how --

6 PRESIDING MEMBER LAURIE: Yes, it does.  
7 Mr. Keeley, like any other citizen such as the  
8 Mayor of the City, are free to comment all they  
9 desire.

10 MR. AJLOUNY: No, I meant the three --  
11 there's five CEC Commissioners.

12 PRESIDING MEMBER LAURIE: Yes.

13 MR. AJLOUNY: The way I see it you two  
14 will decide whether to whatever --

15 PRESIDING MEMBER LAURIE: Make a  
16 recommendation.

17 MR. AJLOUNY: -- recommendation, and  
18 then it goes --

19 PRESIDING MEMBER LAURIE: That's  
20 correct.

21 MR. AJLOUNY: -- before the full  
22 Committee?

23 PRESIDING MEMBER LAURIE: That's  
24 correct.

25 MR. AJLOUNY: And you might say no, you

1 two, but then the full -- the other three might  
2 say yes, could that happen?

3 CHAIRMAN KEESE: Correct.

4 PRESIDING MEMBER LAURIE: Sure it could.

5 MR. AJLOUNY: Okay. So, I guess, is  
6 there anything that we, as the public, can trigger  
7 or enable to insure us that this will be an  
8 independent study?

9 Because we're not feeling very  
10 comfortable with all the, like I say, the  
11 political pressure. It's just so obvious --

12 HEARING OFFICER FAY: But the resolution  
13 has no legal effect. And the law requires the  
14 Energy Commission to base their decision solely on  
15 the substantial evidence in the record.

16 Now that doesn't mean they'll  
17 necessarily agree with you, but they can only base  
18 it on the evidence in the record.

19 MR. AJLOUNY: I understand, but even,  
20 Commissioner Keese, I mean even yourself, you went  
21 from a Republican to Democrat, right? Then  
22 there's words --

23 CHAIRMAN KEESE: I don't understand the  
24 reference --

25 MR. AJLOUNY: Well, the reference is --

1                   CHAIRMAN KEESE: I am an equal  
2 opportunity political appointee. I was appointed  
3 by a Republican and I was appointed by a Democrat,  
4 so you can attack me either way.

5                   MR. AJLOUNY: But I mean you were just  
6 appointed for five more years with a Democratic  
7 Governor, true?

8                   CHAIRMAN KEESE: Correct.

9                   MR. AJLOUNY: Okay, so you have five  
10 more years. You're now a Democrat --

11                   (Laughter.)

12                   MR. AJLOUNY: You know, I mean it made  
13 it convenient. I'm just being honest --

14                   CHAIRMAN KEESE: It was a real little  
15 "r".

16                   MR. AJLOUNY: Well, it was a big enough  
17 "r" to get you in there in the first place. But  
18 anyways, I don't want to get -- I guess I really  
19 want to make the point, and if there's anything  
20 that the Commission can suggest to insure the  
21 community that this is going to be an independent  
22 study, I would like to know about that.

23                   Because we are not feeling that right  
24 now, and especially like Wednesday, and all of a  
25 sudden Wednesday night's going to be the override

1 issue. I can assure you it's going to be the  
2 applicant's people coming in, the political, you  
3 know, speaking and talking.

4 CHAIRMAN KEESE: Well, I can assure you  
5 that somebody has an email roster and I have  
6 gotten hundreds of emails in opposition to the  
7 Metcalf Power Plant. I don't generally read them.

8 I know that there's a resolution. I  
9 have not read it. I have not committed to  
10 anybody. We are waiting to hear the evidence.  
11 We're doing the best we can, understanding there's  
12 a turmoil out there around us. But it does come  
13 from the Mayor --

14 MR. AJLOUNY: Yes.

15 CHAIRMAN KEESE: -- and it comes from  
16 other people, some of whom are opposed, some of  
17 whom are in support. But we've got to hear the  
18 evidence and then make a decision.

19 MR. AJLOUNY: Yeah, but wouldn't it -- I  
20 guess maybe I'm hinting to, wouldn't it be  
21 appropriate for the two Commissioners to make a  
22 statement that knock off the pressure, knock off  
23 this stuff, it's not doing -- this is independent,  
24 you know.

25 PRESIDING MEMBER LAURIE: Not any more

1 than it would be appropriate for me to send a  
2 letter to the Mayor indicating I'm not interested  
3 in what he has to say. You bet I'm interested in  
4 what he has to say. I'm also interested in what  
5 any other representative has to say. I'm also  
6 interested in what any member of the public has to  
7 say.

8           If it were simply a question of us being  
9 a tool of the Legislature then we would not be  
10 sitting here in the middle of March. We would  
11 have been done with the hearings, I daresay, by  
12 the end of January. And that has not been the  
13 case.

14           And that's all I can say. That's all  
15 there is. If there's evidence, and Mr. Williams  
16 has brought an action, Mr. Boyd has brought an  
17 action indicating bias, I don't believe there's  
18 any evidence, I don't believe there's any fact  
19 indicating bias. If such exists, then it should  
20 be noted. And if, in fact, it's true I would step  
21 down. There is none.

22           Do I understand your concerns? Sure I  
23 do, of course I do. But I daresay there's nothing  
24 to be done. I'm certainly not going to declare  
25 myself ineligible to hear the case because any

1 individual or any group of individuals have chosen  
2 to communicate with us.

3 MR. AJLOUNY: Well, I think the other,  
4 you got political pressure to the Commissioners,  
5 then you have political pressure put on the CEC  
6 Staff. And, I mean evidence right here stated  
7 that the person had political pressure to change  
8 his, you know, to go along with what the applicant  
9 suggested.

10 I'm surprise that you --

11 PRESIDING MEMBER LAURIE: I do not  
12 consider any communication from any member of the  
13 Legislature to be political pressure to alter my  
14 approach to any case.

15 MR. AJLOUNY: But what about a letter  
16 from one of the staff members --

17 PRESIDING MEMBER LAURIE: If you want to  
18 somehow use that in a legal proceeding arguing  
19 that this matter is tainted, then you figure out  
20 how to do that.

21 I have no idea --

22 MR. AJLOUNY: I would just hope -- I'm  
23 sorry to cut you off. I would hope that something  
24 like this would stimulate the Commissioners to  
25 maybe ask this person to come in and talk to them,

1 or have a --

2 PRESIDING MEMBER LAURIE: I have no  
3 intention --

4 CHAIRMAN KEESE: The staff is a party  
5 just like you are. We can't talk to them  
6 privately, and we can't talk to you privately.

7 MR. AJLOUNY: But the staff --

8 CHAIRMAN KEESE: They're a party --

9 MR. AJLOUNY: -- are you saying the  
10 staff is just as equal to the rest of everybody  
11 else, that's what I'm hearing right now?

12 CHAIRMAN KEESE: The staff's job here is  
13 to represent the public in this proceeding.

14 MR. AJLOUNY: That's -- okay.

15 CHAIRMAN KEESE: That's what the staff's  
16 job is.

17 MR. AJLOUNY: But if the staff's feeling  
18 political pressure -- okay, if they're supposed to  
19 represent us, first of all, --

20 CHAIRMAN KEESE: Well, it's the same as  
21 if you're feeling political pressure. If the  
22 Mayor called you and told you he'd changed his  
23 mind, would you back off? If the Mayor said, I'm  
24 opposed to it, I want you to oppose it?

25 MR. AJLOUNY: Well, --

1                   CHAIRMAN KEESE: I mean, that's life.  
2                   I'm not familiar with the letter. I don't want to  
3                   be familiar with the letter.

4                   MR. AJLOUNY: Why would that be? It's  
5                   docketed and was sent to you. Why wouldn't you  
6                   want to be familiar with a letter stating that he  
7                   was politically pressured to change his testimony?  
8                   And now he's not working with the CEC.

9                   PRESIDING MEMBER LAURIE: Well, I would  
10                  suggest that you folks consult on that question.  
11                  If you want to raise an issue of CEC bias based  
12                  upon that, then put it in the form of a petition.  
13                  We will hear it, we will take action on it, and  
14                  that's appealable to the full Commission. That's  
15                  how that should be handled.

16                  This Committee is not going to take the  
17                  issue up unilaterally. If you believe that you  
18                  have something from any individual, Mr. Williams  
19                  has filed his petition, Mr. Boyd has filed his  
20                  petition, you can file your petition. And you can  
21                  cite as evidence whatever you choose to cite.

22                  And this Committee will then have to act  
23                  on that petition. And that's appealable to the  
24                  Commission.

25                  So, if you want to bring up Kisabuli

1 again, then I would suggest that that's how you  
2 should approach that.

3 MR. AJLOUNY: Well, I guess I probably  
4 would if I felt I wasn't wasting my time. I don't  
5 know, I'm just a little bit confused,  
6 Commissioner, because this is supposed to be  
7 independent, and we're just getting, you know,  
8 Calpine's wining and dining everybody to come  
9 forward and talk their piece from A to Z, --

10 PRESIDING MEMBER LAURIE: That's not  
11 evidence. I don't know what they're doing, and  
12 it's not relevant to me.

13 MR. HARRIS: Mr. Fay, not that this  
14 isn't interesting, but I do have a witness that  
15 I'd like to get back on the plane at some point.  
16 And so if we could get moving again, I'd be very  
17 appreciative of being able to get Mr. Hanser back.

18 HEARING OFFICER FAY: Issa, we gave you  
19 about 15 minutes.

20 MR. AJLOUNY: That's fine, okay. How  
21 much did I have for cross on LSE for the  
22 applicant?

23 HEARING OFFICER FAY: I'm sorry, what?

24 MR. AJLOUNY: How much did I have on  
25 cross for the applicant?

1 HEARING OFFICER FAY: Less than that.

2 MR. AJLOUNY: Oh, I did?

3 HEARING OFFICER FAY: Yeah. I'm afraid  
4 it's all gone.

5 SPEAKER: You owe us.

6 (Laughter.)

7 MR. AJLOUNY: Do you take Monopoly  
8 money?

9 HEARING OFFICER FAY: All right, let's  
10 move on and start taking evidence.

11 Mr. Harris, has your witness been sworn  
12 previously?

13 MR. HARRIS: We have a panel, so I'd  
14 like them all to be sworn at once.

15 HEARING OFFICER FAY: All right, could  
16 the panel please stand so we can identify them?  
17 Please swear the panel.

18 Whereupon,

19 DANIEL H. WOOD, STEPHEN S. MILLER

20 and PHILIP Q. HANSER

21 were called as witnesses herein, and after first  
22 having been duly sworn, were examined and  
23 testified as follows:

24 //

25 //

1 DIRECT EXAMINATION

2 BY MR. HARRIS:

3 Q I'd like each of the three witnesses to  
4 introduce themselves, their name only, and spell  
5 their names for the record beginning with Mr.  
6 Wood.

7 MR. WOOD: Yes, my name is Daniel Hugh  
8 Wood, that's D-a-n-i-e-l H-u-g-h W-o-o-d.

9 MR. HARRIS: Okay, and, Mr. Miller, will  
10 you reintroduce yourself again, please.

11 MR. MILLER: My name is Stephen Scott  
12 Miller. That's S-t-e-p-h-e-n S-c-o-t-t  
13 M-i-l-l-e-r.

14 MR. HARRIS: And, Mr. Hanser, please.

15 MR. HANSER: My name is Philip Hanser,  
16 P-h-i-l-i-p H-a-n-s-e-r.

17 MR. HARRIS: The witnesses are going to  
18 be sponsoring testimony as a panel, but I'm going  
19 to direct my questions to Mr. Wood, since he'll be  
20 the first one speaking.

21 So, Mr. Wood, please answer on behalf of  
22 the panel. If the rest of you disagree with his  
23 answer, please speak up.

24 So, turning now to Mr. Wood, what  
25 subject matter testimony are you here to sponsor

1 today?

2 MR. WOOD: Local system effects.

3 MR. HARRIS: And were the documents that  
4 you sponsored previously identified in section 1D  
5 of your prefiled testimony?

6 MR. WOOD: Yes.

7 MR. HARRIS: Just a note, these are the  
8 same documents that were identified for the TSE  
9 testimony, so that's why we didn't move them in  
10 previously. We'll move them in at the end of this  
11 session if that's possible.

12 HEARING OFFICER FAY: Okay.

13 MR. HARRIS: Are there changes,  
14 corrections or clarifications to your testimony?

15 MR. WOOD: No.

16 MR. HARRIS: And were the documents  
17 prepared either by you or at your direction?

18 MR. WOOD: Yes.

19 MR. HARRIS: Are the facts stated  
20 therein true to the best of your knowledge?

21 MR. WOOD: Yes.

22 MR. HARRIS: Are the opinions stated  
23 therein your own?

24 MR. WOOD: Yes.

25 MR. HARRIS: Do you adopt this as your

1 testimony for this proceeding?

2 MR. WOOD: Yes.

3 MR. HARRIS: The witnesses'  
4 qualifications were prefiled. I'd be happy to go  
5 through their qualifications individually, but  
6 would ask for consideration to maybe have the  
7 prefiled statements --

8 HEARING OFFICER FAY: Any objection to  
9 just receiving the prefiled statement of  
10 qualifications? All right, we'll dispense with  
11 the qualifications and accept them as prefiled.

12 MR. HARRIS: Thank you. We'll go now  
13 then to Mr. Wood. Can you provide a summary of  
14 the problem as you see it for the LSE testimony  
15 perspective?

16 MR. WOOD: Yes, as we all know from  
17 experience over the past year the South Bay Area  
18 has been experiencing electricity reliability  
19 crisis. The reason is very simple. The South Bay  
20 electric system has been strained to the breaking  
21 point by soaring demand coupled with a lack of  
22 local generation.

23 It is our professional opinion that the  
24 lack of new generation in the Bay Area is the  
25 single greatest technical cause of electricity

1 reliability crisis being experienced throughout  
2 California over the past year.

3 The bottomline is this. Sometime  
4 between 2003 and 2008 the San Jose Silicon Valley  
5 will not be able to meet the WSCC criteria for the  
6 prevention of a voltage collapse, even with all  
7 the proposed generation and transmission upgrades  
8 that are on the board.

9 In addition, as a result of its  
10 excessive reliance on imported power, San Jose and  
11 the Silicon Valley is more vulnerable to a  
12 catastrophic transmission outage than any other  
13 major metropolitan area in California.

14 MR. HARRIS: Turning to the local system  
15 impact of Metcalf, can you summarize your  
16 testimony there for us, please?

17 MR. WOOD: Yes. Metcalf will have a  
18 substantial and very positive local system  
19 effects. MEC can be interconnected to the  
20 transmission system with no negative reliability  
21 implications.

22 MEC provides a significant source of  
23 active and reactive power to serve the South Bay  
24 area, which substantially reduces the need for  
25 imported power over stressed transmission

1 facilities, local reactive facilities, thus  
2 helping to prevent voltage collapse.

3 Had MEC been in operation last year it  
4 would have, by itself, prevented the curtailments  
5 that occurred in the South Bay area on June 14,  
6 2000. Also MEC will be a major step toward  
7 preventing the type of curtailments that occurred  
8 on January 17th of this year.

9 The addition of MEC significantly  
10 reduces the system losses that would otherwise  
11 result from transporting power through the  
12 transmission system. The estimated savings from  
13 the reduced system losses would provide sufficient  
14 energy to serve 9000 to 12,000 homes each year.

15 In 2005 39 megawatts and 81 gigawatt  
16 hours valued at approximately \$34 million would be  
17 realized. Overall, it is our expert opinion that  
18 MEC is the most timely and prudent response to the  
19 electricity reliability problem that threatens the  
20 economy, the region and the state, as a whole.

21 MR. HARRIS: Now, you said Metcalf is  
22 the most timely and prudent response. Why is  
23 that?

24 MR. WOOD: First of all, Metcalf will  
25 reduce the probability of a potential catastrophic

1 power system failure in the South Bay area.

2 MEC eliminates the transmission  
3 deficiencies that result in expensive alternative  
4 solutions or load curtailments.

5 Metcalf Energy Center also increases  
6 efficiency by reducing transmission losses and  
7 reducing the need for additional transmission  
8 facilities resulting in both reduced environmental  
9 impacts and consumer cost.

10 MR. HARRIS: Now, what factors did you  
11 consider in reaching your conclusion that Metcalf  
12 is the most timely and realistic solution?

13 MR. WOOD: MEC will lower cost to  
14 consumers while transmission options will cost  
15 ratepayers tens of millions of dollars. MEC has  
16 the least environmental impact, air emissions,  
17 land requirements, water benefits and other  
18 environmental concerns.

19 MEC reduces or eliminates transmission  
20 system losses associated with transmitting  
21 electricity over long distances. MEC mitigates  
22 thermal overloads on the transmission facilities  
23 for supply into South Bay area.

24 MEC prevents voltage collapse by  
25 supplying active power and dynamic voltage

1 support. MEC eliminates the possibility of  
2 voltage collapse or load curtailments designed to  
3 prevent voltage instability.

4 And, finally, MEC guards against  
5 catastrophic events, such as the loss of two or  
6 more transmission facilities in the area.

7 MR. HARRIS: And tomorrow, we'll talk a  
8 little bit more, hopefully tomorrow, about the  
9 alternatives analysis. But I wonder if you could  
10 give us a very brief overview of how MEC compares  
11 to the alternatives in terms of local system  
12 effects.

13 And first let's look at alternatives one  
14 through four, the north San Jose and Fremont  
15 alternatives.

16 MR. WOOD: Yes. Comparing MEC to  
17 alternative sites one through four, as identified  
18 in the FSA, by location, MEC first of all solves a  
19 Moss Landing 230 kV overload problems.  
20 Alternatives one through four do not.

21 MEC solves the Metcalf 500 to 230 kV  
22 transformer overload scenario. Alternatives one  
23 through four do not.

24 MEC does reduce many overload scenarios  
25 into the south San Jose area, whereas alternatives

1 one through four do not.

2 MEC provides unique loss reductions to  
3 the south San Jose area that alternatives one  
4 through four do not.

5 MR. AJLOUNY: Can I make an objection?

6 HEARING OFFICER FAY: No.

7 MR. HARRIS: It's in his prefiled  
8 testimony.

9 Please continue on, Mr. Wood.

10 MR. AJLOUNY: This is alternatives.

11 MR. HARRIS: It's in his prefiled  
12 testimony.

13 You had just stated that has unique loss  
14 reductions to south San Jose. Would you please  
15 continue.

16 MR. WOOD: MEC also provides a higher  
17 voltage collapse margin in conjunction with the  
18 Delta Energy Center and its transmission  
19 mitigation plan.

20 MEC has a greater potential to prevent  
21 voltage collapse in the south San Jose area than  
22 alternatives one through four due to a  
23 catastrophic N-2 double contingency 500 kV lines.  
24 And these lines are the Metcalf to Moss Landing,  
25 and the Metcalf to Tessler 500 kV lines.

1                   And finally, MEC's interconnection costs  
2                   and associated environmental impacts will be  
3                   greater at the alternative sites.

4                   MR. HARRIS: And, briefly, in terms of  
5                   the Tesla or the Central Valley sites,  
6                   alternatives five and six, what were your  
7                   findings?

8                   MR. WOOD: First of all, they have all  
9                   the advantages of sites one through four, and in  
10                  addition to those advantages, MEC has lower  
11                  transmission losses than alternatives five and  
12                  six. And Tesla provides -- the Tesla  
13                  alternatives five and six provide insignificant  
14                  voltage support for the voltage collapse scenario.

15                  MR. HARRIS: So we understand the scope  
16                  of your testimony in terms of alternatives, is it  
17                  your testimony that Metcalf solves all of the  
18                  problems of the South Bay Area?

19                  MR. WOOD: I can emphatically answer  
20                  that. The answer to that is no. It has never  
21                  been our position that MEC solves all the  
22                  problems. Instead MEC is a part of an overall  
23                  rational approach to solving the local system  
24                  reliability problems.

25                  Moss Landing, Delta Energy Center, and

1 other projects are needed and help. Our analysis  
2 included these projects. It is our opinion that  
3 the Bay Area and the South Bay Area, in  
4 particular, need more new generation than just  
5 provided by MEC to sustain the load growth that  
6 has occurred and to replace the aging and  
7 unreliable generation mix.

8 We need to avoid the false choice of  
9 picking only one plant for the Bay Area, because  
10 no one plant solves the Bay Area problems.

11 Therefore, our testimony should not be  
12 construed to say that a site in either north San  
13 Jose or Fremont should not be pursued in addition  
14 to MEC. However, MEC does have some significant  
15 unique advantages over the north San Jose site and  
16 the Fremont site. And clearly has superior local  
17 benefits over the Tesla sites.

18 MR. HARRIS: Thank you, Mr. Wood. I'd  
19 like to now turn to the second witness, which is  
20 Mr. Steve Miller. Mr. Miller is going to address  
21 basically the same six issues identified in the  
22 final staff assessment related to local system  
23 effects.

24 Before doing that, Mr. Miller has  
25 created a map which was prefiled as appendix B in

1 the rather small binder that you all received for  
2 this proceeding. So, if you want to turn to  
3 appendix B. We're also handing out copies of  
4 those documents, so you don't need to fight that  
5 big binder; figured that would be easier. So  
6 those are coming around right now.

7 So, Mr. Miller, as we pass out the map  
8 from appendix B, can you summarize your testimony  
9 on this map and what it shows, please?

10 MR. MILLER: Yes, certainly. This is a  
11 map of the natural service area for the Metcalf  
12 substation. Since the area that the Metcalf  
13 substation serves, and the location of MEC  
14 coincide, it also can be thought of as a map of  
15 the approximate service area of the Metcalf Energy  
16 Center.

17 A key point to note is that 75 percent  
18 of the transmission capability that serves this  
19 service area comes in at the Metcalf substation.  
20 Actually it's higher than 75 percent, but to be  
21 conservative we've used 75 percent.

22 Because this area is nearly coincident  
23 with the DeAnza and San Jose divisions that PG&E  
24 uses for various purposes, we have used that as a  
25 proxy in many cases for our studies.

1                   The important point about the map is  
2                   that it highlights four things. The first thing  
3                   that you want to note is how the energy gets into  
4                   the South Bay Area. And that's through the 500 kV  
5                   transmission lines that come from Tesla and from  
6                   Moss Landing. And then that's supplemented by the  
7                   230 kV lines that come from Newark and Moss  
8                   Landing. And then there's some 115 kV lines that  
9                   principally serve or currently serve no  
10                  significant transmission function.

11                 MR. HARRIS: So that --

12                 MR. MILLER: It also --

13                 MS. CORD: Could I just ask that red  
14                 thing is shining right in my eyes, so I can't see  
15                 when you -- thank you.

16                 MR. MILLER: Turn it off, Dan.

17                 MR. HARRIS: So, just to recap, Steve,  
18                 the map shows four things. The first thing it  
19                 shows there is basically where energy flows into  
20                 the Metcalf substation, is that correct?

21                 MR. MILLER: That's correct.

22                 MR. HARRIS: Okay, continue on, please.

23                 MR. MILLER: The second thing that it  
24                 shows is where transmission improvements might be  
25                 necessary if the load in the South Bay Area is to

1 be supported by transmission improvements, alone.

2 Either you must choose to cross the  
3 boundary up here in the north, which means  
4 building transmission across the San Francisco  
5 Peninsula, or you must choose to build  
6 transmission through the metropolitan area of San  
7 Jose and Santa Clara. Or you must build  
8 transmission up through the Coyote Valley to reach  
9 this area. So those are your basic transmission  
10 alternatives. And there can be lots of different  
11 details, but those are the basic alternatives.

12 MR. HARRIS: So those alternatives would  
13 assume no additional generation?

14 MR. MILLER: That's correct.

15 MR. HARRIS: Okay, continue, please.

16 MR. MILLER: The area affected, the map  
17 also shows the area that would be affected by  
18 voltage collapse. Engineering rules and standards  
19 give an idea of how to make up a radial system  
20 that you analyze when you analyze voltage  
21 collapse. And this is the area affected by  
22 voltage collapse.

23 MR. WILLIAMS: Could you describe that a  
24 little more carefully. Some of us can't see where  
25 you're gesturing.

1 MR. MILLER: Well, I --

2 MR. WILLIAMS: Is that the area  
3 surrounded by green?

4 MR. MILLER: The area surrounded by  
5 black is the natural service area of the Metcalf  
6 substation.

7 MR. HARRIS: Bob, it's the black line on  
8 the map that you have there that's labeled, the  
9 appendix B map.

10 MR. MILLER: The last thing that the map  
11 shows is from a perspective of physics, and  
12 physics only, where the energy for the Metcalf  
13 Energy Center would effectively be used.

14 The load in this area on peak in 2005 is  
15 something like 3200 megawatts.

16 HEARING OFFICER FAY: Mr. Miller, I'm  
17 sorry to interrupt you, again, along Mr. Williams'  
18 comments, please be self conscious, because the  
19 transcript will not show what "this" is. If you  
20 could refer to it in light of the exhibit, that  
21 would help.

22 MR. MILLER: The black line designating  
23 the natural service boundary for the Metcalf  
24 substation shows the general area where the energy  
25 of the Metcalf Energy Center will serve. The load

1 within that area on peak in 2005 is estimated to  
2 be around 3200 megawatts.

3 Metcalf Energy Center supplies only 600  
4 megawatts. So, effectively all that energy is  
5 used in this local area. Of course, there's much  
6 more energy used than that, as well.

7 MR. HARRIS: Okay, but from a physics  
8 perspective, that's where the energy would be  
9 consumed, is that correct?

10 MR. MILLER: That's correct.

11 MR. HARRIS: Let's move on now and talk  
12 about your second item that we've handed out. How  
13 does generation in this metropolitan area compare  
14 to other metropolitan areas in California?

15 MR. MILLER: What we have prepared here  
16 is a chart that shows generation --

17 MR. HARRIS: Steve, before you go on,  
18 I'm sorry, that's appendix K, if you're following  
19 along, in the big binder. And it's labeled  
20 generation as a percentage of load in urban  
21 California counties.

22 PRESIDING MEMBER LAURIE: Mr. Harris,  
23 before this witness answers your question, I'd  
24 like an explanation of why that is relevant. That  
25 is there's no law saying that fairness counts, if

1 that's your point.

2 MR. HARRIS: No, we're looking at local  
3 system benefits, and one of the reasons the  
4 benefits are so great in this area is that the  
5 benefits relative to the local generation versus  
6 the load is very low.

7 So in other words, very low generation,  
8 very high load, and that these areas were selected  
9 as other representative areas in California to  
10 show that mix of energy. And that's the tie back  
11 to the local system.

12 MR. WILLIAMS: I would still like to  
13 object. I appreciate Commissioner Laurie's  
14 sensitivity, but I would like to reiterate that,  
15 you know, there's some arbitrary definitions in  
16 what is local system. For example, are the San  
17 Onofre units, what area are they included in?  
18 Arguably they're further from the L.A. area than  
19 the Moss Landing units, and --

20 MR. HARRIS: Those are perfectly  
21 acceptable questions --

22 MR. WILLIAMS: -- this just opens a can  
23 of worms --

24 MR. HARRIS: -- for cross-examination.  
25 But this was in our prefiled testimony.

1                   HEARING OFFICER FAY: Yes, Mr. Williams,  
2 I'm going to interrupt you and overrule your  
3 objection. I'm going to let them make their  
4 arbitrary comparisons. And I think if you find  
5 that they're inappropriate, or that they're far  
6 more extreme examples the other way, you can bring  
7 that up on cross or in your briefs.

8                   MR. WILLIAMS: Well, isn't it the ground  
9 rule that you can choose to put anything you want  
10 in prefiled testimony whether it's relevant or  
11 not? And then just force the intervenor to  
12 disprove it or --

13                   HEARING OFFICER FAY: Well, if it was  
14 not relevant, then your objection would certainly  
15 be germane. But I think it is relevant in that it  
16 looks to me like they're trying to give us some  
17 reference point, some perspective.

18                   MR. AJLOUNY: Another political  
19 perception.

20                   MR. WILLIAMS: Yeah, by excluding Moss  
21 Landing from this local area.

22                   HEARING OFFICER FAY: Go ahead, Mr.  
23 Harris.

24                   MR. HARRIS: All fair questions for  
25 cross-examination. I think we've taken more time

1 on this than the presentation, actually.

2 Can you explain, Steve, why you selected  
3 these counties and why it's not arbitrary you  
4 selected these counties?

5 (Laughter.)

6 MR. MILLER: We selected these  
7 particular areas as representative urban areas in  
8 California, areas with similar characteristics to  
9 Silicon Valley, i.e., urban areas with high  
10 density.

11 We looked at Alameda and Contra Costa  
12 Counties. We looked at Los Angeles County. All  
13 of these, with the exception of the footnoted  
14 elements, are counties -- we picked San Diego  
15 County; we picked San Francisco and San Mateo  
16 Counties; and we picked Santa Clara, along with  
17 portions of San Mateo County, to illustrate.

18 As you can see from the chart if you  
19 look at Alameda and Contra Costa Counties, 124  
20 percent of the peak load is served by generation  
21 that's located in that urban area.

22 In Los Angeles 87 percent of the peak  
23 load is served by generation that's located in Los  
24 Angeles County.

25 In San Diego County 100 percent of the

1 load is served by generation in the County. Even  
2 in San Francisco, where there's a known deficiency  
3 of generation, the peak capability of the  
4 generation is half of the peak load.

5 Then we turn to the Santa Clara and San  
6 Mateo Counties, and I'll explain that in a second.  
7 And the number drops to 14 percent. This is the  
8 inherent basis of the electric supply problem for  
9 Silicon Valley, which can either be met by  
10 transmission across the black boundary on the map,  
11 or by generation within that area.

12 MR. HARRIS: Why can't that needed  
13 electricity be provided via transmission lines,  
14 only?

15 MR. MILLER: It can't be provided by the  
16 existing transmission lines because you're limited  
17 by the constraints of service into the Metcalf  
18 service area. So you're limited by the  
19 constraints or the capabilities of the lines  
20 roughly shown by this boundary.

21 The second area of constraints that  
22 you're limited to --

23 MR. WILLIAMS: What's this boundary in  
24 that sentence?

25 MR. MILLER: The black, by the black

1 Metcalf natural service substation area boundary.

2 The second reason that you're limits are  
3 the constraints into the Bay Area, itself. The  
4 Bay Area is surrounded by a set of four  
5 transformers that are used for proxy for the  
6 overall constraints, transformers at Tesla,  
7 transformers at Metcalf, transformers at Tracy,  
8 and transformers at VacaDixon.

9 If you were able to provide generation  
10 outside that area in northern California you have  
11 yet another transmission constraint, which limits  
12 the power, and that is the path 15 constraints  
13 into northern California.

14 So, in sum, there are sort of three  
15 levels of constraints. The most important, of  
16 course, are the ones indicated or shown  
17 diagrammatically by the natural service area for  
18 the Metcalf substation. Then the Bay Area  
19 constraints. And then after that, you have the  
20 northern California constraints.

21 MR. HARRIS: So even when there's  
22 generation available in the south, it really can't  
23 make it to the north because of those transmission  
24 constraints, is that correct?

25 MR. MILLER: That's correct.

1                   MR. HARRIS: I want to turn now to the  
2 local system effects and review and amplify on the  
3 six issues presented in the FSA. And I want to  
4 begin with the first one. I'll take them in the  
5 same order they're presented in the FSA.

6                   So, let's start with transmission system  
7 losses. What's the situation there with  
8 transmission system loss and what did your  
9 analysis show for Metcalf?

10                  MR. MILLER: The Metcalf reduces the  
11 transmission system losses, and this is due to its  
12 closeness to the load area of the Metcalf  
13 substation.

14                  The FSA concludes that MEC will  
15 substantially reduce energy losses and provide  
16 numerous benefits to the local and regional energy  
17 supply.

18                  If one anticipates that MEC, if built,  
19 would operate for 20 years, there are substantial  
20 long-term environmental benefits related to  
21 reduced fuel and water use and to reduced  
22 emissions. We agree with this statement.

23                  MR. HARRIS: So you're in agreement with  
24 the FSA in that regard?

25                  MR. MILLER: That's correct, we're 100

1 percent in agreement there.

2 The range of peak loss reductions in  
3 2002 would be 12 to 67 megawatts; in 2005 it would  
4 be 21 to 84 megawatts. The estimated annual  
5 energy savings in 2002 would be 64 gigawatt hours.  
6 And in 2005, 81 gigawatt hours.

7 MR. HARRIS: So those are the numbers  
8 out of the FSA? Do you think those numbers are  
9 conservative?

10 MR. MILLER: Yes. We did an alternative  
11 analysis to the FSA, both to verify that the FSA  
12 was accurate, and to give an alternate way of  
13 looking at it.

14 Assuming that Metcalf operates at an 80  
15 percent capacity factor, we found that the  
16 reductions in losses might be two and a third  
17 times as much as the amount suggested in the FSA.

18 MR. HARRIS: So, again, you're in  
19 agreement with the FSA; you took another run at it  
20 with a different capacity factor, is that right?

21 MR. MILLER: That's correct. If you  
22 have a lower capacity factor you get to the same  
23 numbers that you have in the FSA. Just shows two  
24 different ways to come to the same conclusion.

25 MR. HARRIS: What about the

1 environmental benefits associated with reducing  
2 transmission losses?

3 MR. MILLER: The environmental benefits  
4 of reducing transmission losses are clear and  
5 indisputable. If you don't generate a megawatt  
6 there are no water losses, there are no fuel  
7 losses, there's no emissions associated with it.

8 Also, customers directly benefit from  
9 negative megawatts. While it's likely that the  
10 applicant will capture the benefits from this  
11 location in terms of its pricing, the negative  
12 megawatt, the benefit of megawatts not generated  
13 will flow directly to customers.

14 MR. HARRIS: So by negative megawatts  
15 you're saying that reductions in line losses?

16 MR. MILLER: That's correct.

17 MR. HARRIS: So that megawatts generated  
18 are fully available and not lost in line losses?

19 MR. MILLER: That's correct.

20 MR. HARRIS: Let's move to the second  
21 issue in the FSA, the thermal overloads and a  
22 comparison of system performance. What were your  
23 findings there?

24 MR. MILLER: That MEC relieves important  
25 specific overloads related to the transmission

1 lines serving the Metcalf service area.

2 MR. HARRIS: What were your findings  
3 related to Metcalf's synergistic effects with Moss  
4 Landing?

5 MR. MILLER: Moss Landing is located in  
6 the south part of this map --

7 MR. HARRIS: To the south of your  
8 natural boundary --

9 MR. MILLER: Yes, to the south of the  
10 natural boundary. And it's connected by 500 and  
11 230 kV lines. Because of its location at Metcalf,  
12 the Metcalf Energy Center allows more power from  
13 Moss Landing to flow into the Metcalf service area  
14 and further north into the rest of the system.

15 In other words, MEC allows the full use  
16 of the output of the Moss Landing Power Project.

17 MR. HARRIS: And does this occur on  
18 peak, is that correct?

19 MR. MILLER: Yes, this was a peak  
20 analysis. Although we expect the same thing to  
21 happen in offpeak cases.

22 MR. HARRIS: So the key point there is  
23 that the Moss Landing power generation would have  
24 to be curtailed on peak, is that right?

25 MR. MILLER: That's correct.

1 MR. HARRIS: Without Metcalf?

2 MR. MILLER: That's correct. Depending  
3 on the contingency, you would have to curtail Moss  
4 Landing by 415 to 720 megawatts onpeak if the  
5 Metcalf Energy Center is not built; or if some  
6 other transmission remedy isn't found.

7 MR. HARRIS: What about the thermal  
8 benefits associated with MEC's location?

9 MR. MILLER: There are other unique  
10 thermal benefits associated with the MEC's  
11 location. Because it's directly on the 230 kV  
12 buss it relieves an overload on the 500 to 230 kV  
13 transformers at Metcalf. It relieves completely  
14 the overloads on bank 1, and on bank 2 it relieves  
15 them if you consider the fast transfer scheme that  
16 PG&E currently employs.

17 And we might note further that some of  
18 the unique thermal benefits associated with MEC  
19 are that it has benefits that are not associated  
20 with power that's put up in the Tesla area. The  
21 power placed in the Tesla area must flow through  
22 these transmission lines to get to the Metcalf  
23 substation service area. And therefore it tends  
24 to overload the other lines in this corridor, in  
25 the Tesla to Newark.

1                   MR. HARRIS: So those alternatives five  
2 and six don't have the same --

3                   MR. MILLER: That's correct.

4                   MR. HARRIS: -- unique thermal benefits?  
5 What about alternatives one and four? Do the  
6 overloads remain with those alternatives, as well?

7                   MR. MILLER: Alternatives one and four  
8 are not as effective in supporting the Moss  
9 Landing power project because they don't directly  
10 provide power on the end of the line that's  
11 overloaded and constrains the output that you can  
12 get from Moss Landing.

13                   MR. HARRIS: Thank you. Let's move on  
14 to the third issue identified in the FSA. That's  
15 voltage collapse and reactive margin. Can you  
16 summarize your testimony there for us, please?

17                   MR. MILLER: Yes. First, what I need to  
18 do is define voltage collapse, and we'll give the  
19 textbook definition first.

20                   Voltage collapse involves the ability of  
21 the system to support near nominal voltages  
22 without the threat that a small or sudden change  
23 might cause the voltage to drop to a point where  
24 it cannot be recovered or maintained.

25                   An example that I like to use when we

1 explain this effect to laymen is the experience of  
2 being in the shower when someone flushes the  
3 toilet. You may suddenly get scalded. You get  
4 scalded because there's a sudden drop in the  
5 pressure in the cold water pipe, therefore all you  
6 get is hot water.

7 Well, the effect of voltage collapse is  
8 almost precisely the same. Sudden drop in voltage  
9 causes bad things to happen. If you carry the  
10 analogy further, if you're on a system where you  
11 have a pump, for example, a small pump in a  
12 residence in a rural area. If that pump begins to  
13 cavitate, that is the blades of the pump begin to  
14 spin in air because there's not enough water to  
15 keep the pressure up, the pump stops working and  
16 you have to reprime the plumbing system before it  
17 starts again.

18 In the case of voltage collapse the same  
19 thing happens. If you go over the edge with  
20 voltage collapse you have to restart the power  
21 system.

22 MR. HARRIS: So, what can cause the  
23 sudden voltage collapse?

24 MR. MILLER: In the case of the Metcalf  
25 230 kV buss, the critical contingencies, according

1 to our analysis, are the 500 kV lines from Tesla  
2 to Metcalf and Moss Landing to Metcalf. Now,  
3 there may be worse lines than these, but these  
4 appear to be the ones that cause the worst  
5 effects.

6 MR. HARRIS: So when you say Metcalf,  
7 you mean the Metcalf substation, is that correct?

8 MR. MILLER: That's correct, the Metcalf  
9 substation.

10 MR. HARRIS: So, can you summarize then  
11 the voltage collapse results from your analysis?

12 MR. MILLER: Yes. We studied the loss  
13 of both of these lines, and by 2005 for the loss  
14 of the Moss Landing to Metcalf 500 kV line, the  
15 system does not meet WSCC criteria.

16 It's also true for the Tesla to Metcalf  
17 line. But the Metcalf to Moss Landing line is the  
18 most severe loss. In fact, the loss of the  
19 Metcalf to Moss Landing 500 kV line would result  
20 in 100 megawatts less than what's necessary to  
21 serve the load.

22 So, that by 2005 even with all the  
23 generation improvements and transmission  
24 improvements that are in their plan by PG&E and  
25 the ISO at this point, we're into voltage collapse

1 for the Metcalf 230 kV margin.

2 I might add, by WSCC standards, the  
3 problem is even worse. WSCC asks that you have a  
4 5 percent margin on a single contingency. That  
5 amounts to about 159 megawatts further. So that  
6 by 2005 you're into voltage collapse, and if you  
7 apply the WSCC criterion, the South Bay electric  
8 power supply will not meet WSCC criteria, even if  
9 Moss Landing Power Project, the Los Medanos Energy  
10 Center, the Delta Energy Center, the Northeast San  
11 Jose Reinforcement Project, and all of the other  
12 transmission upgrades proposed by PG&E are in  
13 service.

14 This occurs even if the load growth is  
15 as little as 1 percent per year.

16 MR. HARRIS: So if you assume a 1  
17 percent load growth, what kind of criteria do you  
18 get by WSCC standards?

19 MR. MILLER: That MEC would be needed by  
20 2008 conservatively.

21 MR. HARRIS: So that's your statement  
22 earlier that by 2003 or not later than 2008 --

23 MR. MILLER: That's correct.

24 MR. HARRIS: -- Metcalf is needed? Do  
25 the Tesla alternatives in the Central Valley

1 solve Metcalf's 230 kV voltage -- problem?

2 MR. MILLER: No, they do not. They  
3 could contribute to solving it, but they are  
4 substantially less efficient.

5 Because reactive power, or that part of  
6 the electric power transports poorly over the  
7 electric system, Tesla is too far away to support  
8 this area with respect to voltage collapse.

9 As compared to Metcalf, a power plant at  
10 Tesla would only bring 250 megawatt increase to  
11 the active power margin at the Metcalf substation.  
12 So it's less than half the increase the Metcalf  
13 Energy Center would bring.

14 MR. HARRIS: Thank you. Let's go on to  
15 the fourth criteria in the FSA, operational  
16 reliability. Can you summarize your testimony on  
17 operational reliability, please?

18 MR. MILLER: Yes. In a nutshell this  
19 additional generation, located as it is, in a  
20 critical spot supports the operation of the  
21 system, and improves the ability of the operators  
22 to operate the system.

23 A lot of these benefits are subtle and  
24 difficult to quantify. But there's one that we  
25 can readily quantify, and that is a reduction in

1 the RMR requirements for the Bay Area.

2 MR. HARRIS: And RMR is reliability must  
3 run?

4 MR. MILLER: That's correct.

5 MR. HARRIS: Go ahead.

6 MR. MILLER: When we examined this we  
7 found that MEC displaces 945 megawatts of  
8 alternative RMR from generation. This results in  
9 a savings in RMR expenses of about \$11.4 million  
10 per year.

11 MR. HARRIS: \$11.4 million in RMR costs  
12 potentially saved, is that correct?

13 MR. MILLER: That's correct. Per year.

14 MR. HARRIS: Per year. Thank you for  
15 that clarification.

16 Let's move on to item five now, in the  
17 final staff assessment, the ability of the project  
18 to be integrated into the existing and planned  
19 system.

20 What were your findings there?

21 MR. MILLER: Well, as we already know,  
22 the plant has been granted final interconnection  
23 approval by the ISO. This indicates that there  
24 are no negative impacts.

25 But its ability to integrate into the

1 rest of the planned or potential system that we  
2 might see many years out is very important because  
3 one example of that would be the planned Jefferson  
4 to Martin circuit that PG&E is examining.

5 If you simply put that transmission  
6 circuit in without providing any additional energy  
7 supply in the Metcalf service area, then the power  
8 to serve must flow through the transmission lines  
9 that are already loaded to their limit at the  
10 Metcalf substation.

11 However, if you put 600 megawatts at the  
12 source, at this Metcalf substation, that provides  
13 another source of power for the peninsula, if you  
14 build that transmission improvement.

15 MR. HARRIS: So what's the effect on the  
16 San Francisco area, then, with this?

17 MR. MILLER: The effect on the San  
18 Francisco area is positive.

19 MR. HARRIS: So with Metcalf you have a  
20 new source of energy that will help alleviate some  
21 of the constraints in the San Francisco area, is  
22 that correct?

23 MR. MILLER: That's correct.

24 MR. HARRIS: Move on to the sixth item,  
25 now, if we can. We'll talk about the deferral of

1 capital facilities and redeployment of existing  
2 facilities.

3 Can you summarize what your findings  
4 were there, as well?

5 MR. MILLER: Yes. There were six  
6 projects identified by the staff that might be  
7 deferred or canceled because of the MEC.

8 We looked at a more up to date list and  
9 put some costs to each of these, and identified  
10 some more which are shown in table 14 on page 33.

11 MR. HARRIS: So your prefiled testimony  
12 on page 33, it's at TSE table 14, and that's what  
13 you're referring to now, is that correct?

14 MR. MILLER: That's correct.

15 MR. HARRIS: Okay.

16 MR. MILLER: And these show projects  
17 that might be deferred or eliminated. We're not  
18 saying that these necessarily will be deferred or  
19 eliminated. It's just that MEC gives the option  
20 of deferring or eliminating these particular  
21 projects.

22 MR. HARRIS: So, if I'm looking at that  
23 chart again on page 33, the first six items there  
24 are listed as Cal-ISO or CEC. It's the seventh  
25 item, starting with the San Mateo 230 kV shunt

1 capacitor project. From that item down are the  
2 additional items that you studied, is that  
3 correct? So in other words, the first six were in  
4 the FSA, and the additional ones below that --

5 MR. MILLER: That's correct.

6 MR. HARRIS: -- are below the San Mateo  
7 are the ones you studied?

8 MR. MILLER: That's correct.

9 MR. HARRIS: Okay. Let's talk about  
10 indicated facilities. First, can you explain to  
11 folks what indicated facilities are?

12 MR. MILLER: Yeah, indicated facilities  
13 are those that Dan and I looked at. The  
14 transmission planning process is a five-year  
15 process for PG&E. That means that they look out  
16 over the horizon for five years. They don't  
17 attempt to go beyond that and look further into  
18 the future, with one exception, and that is the  
19 special studies with respect to the San Francisco  
20 Bay Area.

21 What we did is using our judgment and  
22 experience we looked at the types of projects that  
23 are mentioned in planning studies, and looked at  
24 what might be needed if you don't build generation  
25 in the Metcalf substation service area.

1                   And we found that there are five  
2                   different alternatives in general terms that range  
3                   in cost from, conservatively from about \$150  
4                   million to \$300 million.

5                   MR. HARRIS: Okay, these items are on  
6                   page 34 of your prefiled testimony, is that  
7                   correct?

8                   MR. MILLER: That's correct.

9                   MR. HARRIS: And these are items that  
10                  again are indicated as potentially being deferred,  
11                  or --

12                  MR. MILLER: Well, no, they're indicated  
13                  as being certainly deferred, because there's an  
14                  alternative way to look at this, Jeff, and that is  
15                  if you put 600 megawatts of generation here,  
16                  what's the alternative to bring 600 megawatts of  
17                  power by transmission into the Bay Area.

18                  Well, the alternative is to build a  
19                  minimum of a double circuit 230 kV line of about  
20                  30 miles. And who knows where it's going to be  
21                  built to, because who knows where you're going to  
22                  have the generation source.

23                  And by looking at the costs associated  
24                  with the Northeast San Jose Reinforcement Project,  
25                  TriValley and those identified in the San

1 Francisco Bay Area study, you come up with roughly  
2 \$10 million a mile for such a project. That leads  
3 to the same \$150 million of avoided costs.

4 Now that is permanent for the life of  
5 the plant. As long as MEC is generating you do  
6 not have to build 600 megawatts of transmission to  
7 come into this service area.

8 MR. HARRIS: Okay, thank you. And then  
9 finally, your last point, and I want to talk about  
10 additional reliability benefits, and specifically  
11 the prevention of catastrophic events. Can you  
12 briefly summarize your testimony there?

13 MR. MILLER: Yes. And again it focuses  
14 on these two 500 kV lines that serve the Metcalf  
15 substation. Those are the principal electric  
16 supply for this area. If you were to lose both of  
17 those simultaneously, the PG&E electric  
18 transmission system assessment for the years 2001  
19 to 2005, in their post-transient power flow study  
20 report for the 500 kV transmission facility outage  
21 shows that you would have voltage collapse in the  
22 Bay Area. And it would experience an area-wide  
23 blackout for loss of both the circuits under 2005  
24 peak conditions.

25 MR. HARRIS: Can you identify the

1 circuits by name again, just for those who didn't  
2 see --

3 MR. MILLER: Those would be Tesla to  
4 Metcalf 500 kV and Moss Landing to Metcalf 500 kV  
5 circuits.

6 MR. HARRIS: Okay, and the loss of both  
7 of those you would expect to experience a  
8 widespread blackout in the Bay Area, is that  
9 right?

10 MR. MILLER: PG&E indicates in their  
11 study that 600 megawatts of load would have to be  
12 curtailed in the South Bay area to meet the  
13 requirements for voltage collapse.

14 We did our own studies and found that at  
15 least 1000 megawatts would have to be curtailed  
16 for thermal reasons. That is, the melting of the  
17 lines, the overloads of the lines, if those two  
18 lines should be lost for any reasons.

19 MR. HARRIS: Thank you. I want to move  
20 now to our final witness, Mr. Phil Hanser, from  
21 the Brattle Group.

22 Mr. Hanser, as you may recall, had  
23 previously provided testimony under  
24 socioeconomics. It was appendix C, and we agreed  
25 to bring him back to discuss the remainder of that

1 report, and also to talk about the report in his  
2 prefiled testimony, as well.

3 So, Mr. Hanser, could you please  
4 summarize your testimony in the areas you  
5 investigated for us, please?

6 MR. HANSER: Sure. What we looked at  
7 were a couple of simple local area analyses from  
8 the perspective of allocating the potential --

9 MR. HARRIS: You need to pull the mike  
10 closer, sorry.

11 MR. HANSER: Oh, I'm sorry.

12 MR. HARRIS: The big mike.

13 MR. HANSER: We looked at the impact  
14 locally in terms of the potential benefits of  
15 generation in the Santa Clara County area and the  
16 Greater Bay Area.

17 And we did some quantification based on  
18 CEC projections of likely loads within the Santa  
19 Clara County area. And we estimated that the  
20 price related benefits that we calculated for the  
21 Metcalf Energy Center were on the order of  
22 somewhere between \$77 million and \$159 million for  
23 the nine-year period that we looked at for the  
24 existence of the plant, 2003 to roughly 2010.

25 We also looked at some environmental

1 impacts of the plant. And we really tried to  
2 break the environmental benefits into two pieces.  
3 One piece was based on the effect of the  
4 displacement of Metcalf Energy Center displacing  
5 less efficient generating units, --

6 MR. HARRIS: And that was the analysis  
7 that was provided earlier for the socioeconomics  
8 testimony, is that correct?

9 MR. HANSER: No, that was actually a  
10 part of our rebuttal testimony that was labeled as  
11 air quality benefits to the Metcalf Energy Center.

12 MR. HARRIS: Okay, thank you for the  
13 correction. Continue, please.

14 MR. HANSER: We also looked at the  
15 environmental benefits, as I stated, with  
16 increased system reliability. And we were  
17 fortunate in that we had an incident June 14,  
18 2000, which we could examine what the likely  
19 impacts were.

20 Just as some background, we should note  
21 that the Bay Area currently is a nonattainment  
22 area for both ozone and for particulate matter of  
23 size 10 microns or smaller, so called PM10.

24 The Bay Area ozone exceedances have been  
25 linked to high levels of precursor organic

1 compounds, also known as POCs, sometimes also  
2 known in the literature as ROCs or VOCs. And also  
3 nitrous oxide.

4 The current designed MEC is an extremely  
5 efficient low emissions generator. And it is  
6 equipped with what's known as best available  
7 control technology, sometimes labeled as BACT. So  
8 we sort of have an alphabet soup of acronyms here.

9 The MEC emissions will be also offset by  
10 emission reduction credits known as ERCs, mostly  
11 in the Santa Clara area.

12 Let me start with the displaced  
13 generation analysis. The construction of MEC will  
14 alter generation dispatched during many hours, and  
15 hence emissions. We did a very simple, very  
16 conservative analysis based on dispatching of  
17 existing units. We brought into play all the new  
18 megawatts that were expected online by 2003 based  
19 on CEC projections. And we used actual emissions  
20 data or proxies from the California Air Resources  
21 Board and the EPA.

22 MR. HARRIS: So what were your findings  
23 related to displacing generators?

24 MR. HANSER: Well, in this analysis the  
25 net reduction in NOx is about 12 times greater

1 than the emissions from the MEC alone. That is to  
2 say, for every megawatt that the MEC generates, it  
3 produces 12 times as many emissions as it  
4 produces. The net reduction in ozone precursors  
5 is about 11 times. The net reduction in PM10 is  
6 about seven times, that is to say it's about one  
7 megawatt produces about one-seventh of that.

8 MR. ALTON: Could I ask if this is  
9 transmission LSE or air quality --

10 MR. HARRIS: This is prefiled testimony.

11 MR. ALTON: Is it in the LSE section?

12 MS. CORD: I think he's asking the  
13 Commissioners, Jeffery.

14 MR. HARRIS: It is in the LSE --

15 MS. CORD: I think he's asking the  
16 Commissioners --

17 MR. HARRIS: -- section, yes.

18 MR. ALTON: Okay, --

19 (Parties speaking simultaneously.)

20 SPEAKER: It's also in socioeconomics --

21 MR. HARRIS: No, it's in --

22 HEARING OFFICER FAY: Please, one at a  
23 time.

24 MR. HARRIS: Prefiled rebuttal  
25 testimony, yes.

1 (Parties speaking simultaneously.)

2 MR. ALTON: You said rebuttal, rebuttal  
3 to what?

4 MR. HARRIS: Rebuttal to the previous  
5 statements about the environmental impacts and the  
6 local system effects.

7 HEARING OFFICER FAY: Is that the  
8 testimony you filed on February 23rd?

9 MR. HARRIS: It's our prefiled rebuttal  
10 testimony. And I think that is the correct date.

11 HEARING OFFICER FAY: All right.

12 MS. CORD: So the prefiled air quality  
13 testimony, and then give it during LSE, that's --

14 HEARING OFFICER FAY: I have a packet  
15 filed on February 23rd that includes a section  
16 called air quality benefits of the Metcalf Energy  
17 Center.

18 MR. HARRIS: Right, and we were asked to  
19 take this information out of socioeconomic and  
20 present it here. And so essentially all parties  
21 are getting a second bite at this -- apple, if you  
22 will. And so, you know, I think there may be some  
23 concern here that you're getting too much process.  
24 But if I could continue with our direct testimony  
25 I'd like Mr. Hanser to continue with his

1 displacement analysis --

2 MS. CORD: Well, what I really wanted  
3 was for Mr. Fay to answer the question. Thank  
4 you, Jeffery.

5 HEARING OFFICER FAY: What is your  
6 question?

7 MS. CORD: If you prefile air quality  
8 testimony under LSE, is that okay to then present  
9 it under LSE?

10 HEARING OFFICER FAY: Well, --

11 MR. HARRIS: This is --

12 MS. CORD: I was asking Mr. Fay.

13 HEARING OFFICER FAY: Yes. It is if  
14 they can tie it in. If it's not relevant, then it  
15 can be subject to objection. It's up to the  
16 witness to tie it in.

17 SPEAKER: How would they tie it in?

18 HEARING OFFICER FAY: Well, that's what  
19 we're going to listen and wait for.

20 MR. HARRIS: I'll get there, I promise,  
21 and I'm almost within my hour if you guys would  
22 quit interrupting me. I know you have important  
23 questions, but let me try to tie this in for you  
24 all.

25 We're talking about the displacement of

1 generation, and that again goes to the whole  
2 question of the operation of the local system.  
3 And so Mr. Hanser is making that connection.

4 And I might add that if there's a  
5 question with the prefiled testimony, it is  
6 obviously subject to a motion to strike, which can  
7 be done before the day of the hearing by anybody  
8 who reads the prefiled testimony. And that hasn't  
9 occurred here, so.

10 MS. CORD: Are you interpreting this for  
11 the Committee, or is that just your comment you're  
12 sharing with us?

13 MR. HARRIS: I'm trying to make us all a  
14 little more educated on the process.

15 HEARING OFFICER FAY: Go ahead, Mr.  
16 Harris, with your witness' direct, please.

17 MR. HARRIS: So your testimony then is  
18 when Metcalf operates it will tend to displace the  
19 less efficient fossil fuel plants that have higher  
20 emission levels, is that correct?

21 MR. HANSER: In particular, one of the  
22 areas that we wanted to look at was the June 14,  
23 2000, because it has been proposed in numerous  
24 situations that there will be a preponderance of  
25 small scale local generation that will somehow

1 replace the necessity of building these generation  
2 units.

3 And in fact what we looked at was the  
4 BACT generation analysis for this June 14, 2000  
5 incident.

6 The difficulty with these generators is  
7 that the emissions from these generators have been  
8 of sufficient quality that the Bay Area Air  
9 Quality Management District, BAAQMD, has basically  
10 tried to eliminate any exemption from the  
11 emissions permits that it currently has.

12 Most of the emergency backup units  
13 really tend to have very high NOx emissions, and  
14 compared to MEC are many orders of magnitude  
15 larger.

16 As an example, we estimated that roughly  
17 about 12 megawatts of backup generation were used.  
18 That 12 megawatts of backup generation would have,  
19 if you could imagine creating an emissions  
20 equivalent, would have been about 6500 megawatts  
21 of equivalent generation by the MEC based on the  
22 controls for NOx. And about 1200 megawatts of  
23 MEC's total generation when you compare it for the  
24 precursor ozone compounds.

25 So that we're talking about two to three

1 orders of magnitude in terms of emissions that  
2 would likely be generated equivalently if you use  
3 those kinds of emissions factors for local  
4 generation.

5 It's one of those issues that  
6 unfortunately has arisen around local generation,  
7 and small scale generation in a number of  
8 different situations, and it's evidenced here.

9 MR. HARRIS: Please, Phil, go ahead and  
10 continue.

11 MR. HANSER: The point is that the idea  
12 that the impact of the lowered reliability is not  
13 just in terms of the cost that can arise, but in  
14 fact there are large scale emissions problems that  
15 arise in the attempt to use backup generation as a  
16 means to supplant these other kinds of more  
17 efficient generation, such as the MEC.

18 And in particular, since the MEC appears  
19 to have been capable of preventing and precluding,  
20 in fact, the outage that occurred on June 14,  
21 2000, then, in fact, it was a significant impact  
22 in emissions just from that single day.

23 MR. HARRIS: So to the extent the system  
24 is more reliable there will be fewer hours of  
25 diesel generation running, is that correct?

1 MR. HANSER: Yes, that's correct.

2 MR. HARRIS: And I like that tie-in,  
3 thank you. Does that conclude your testimony?

4 MR. HANSER: Yes, that does.

5 MR. HARRIS: I have one final question  
6 for each member of the panel, and I'll ask them  
7 each to answer it. You've all reviewed the final  
8 staff assessment. Do you agree with the  
9 conclusions stated in the final staff assessment  
10 on local system effects?

11 First, Mr. Wood?

12 MR. WOOD: Yes, I do.

13 MR. HARRIS: Mr. Miller?

14 MR. MILLER: Yes.

15 MR. HARRIS: And Mr. Hanser?

16 MR. HANSER: Yes, I do.

17 MR. HARRIS: Thank you. I would make  
18 the witnesses available for cross-examination at  
19 this point.

20 HEARING OFFICER FAY: All right. Does  
21 staff have cross-examination of the panel?

22 MR. RATLIFF: Yes, I have two clarifying  
23 questions for either Mr. Miller or Mr. Wood,  
24 whomever should feel like they're more likely to  
25 have the answer.

## 1 CROSS-EXAMINATION

2 BY MR. RATLIFF:

3 Q On page 18 of your testimony there is a  
4 statement in the last sentence of the first full  
5 paragraph. And it starts with the word -- let me  
6 wait, I want to make sure you have it.

7 MR. WOOD: The last sentence of what?

8 MR. RATLIFF: Of the first paragraph;  
9 it's below table TSE-1.

10 And the sentence says: Assuming an 80  
11 percent capacity factor this would suggest that  
12 the energy savings should be approximately two and  
13 one third times the amount suggested in the FSA."

14 And I wondered if you could explain  
15 that?

16 MR. MILLER: I think so. The FSA used a  
17 methodology that used a function called the  
18 equivalent hours loss factor, to take the losses  
19 which we can calculate on peak, and estimate the  
20 losses that you would have over the entire load  
21 cycle.

22 So as the load goes down the method  
23 predicts that the loss savings will also go down.

24 However, in the case of the Metcalf  
25 Energy Center, because of its key local position

1 in the transmission system, it is a) always likely  
2 to run, and b) will always reduce the losses on  
3 the lines directly serving particularly the  
4 Metcalf substation.

5 If you assume then that it is already  
6 always running, and that it's not subject to the  
7 normal load curve, you get a higher number.

8 So, we're just saying that the loss  
9 reduction could be two and a third times as much  
10 as what was presented in the FSA.

11 MR. RATLIFF: Okay. One additional  
12 question, again for either witness, a somewhat  
13 technical clarification I'm seeking.

14 If the Los Isteros project is not built,  
15 would the building and the placing on line of the  
16 MEC project, would that require any reinforcements  
17 that you're aware of?

18 MR. MILLER: No, in fact, just the  
19 opposite. If, for some reason, the Northeast San  
20 Jose Transmission Project is not built, then  
21 voltage collapse occurs in the South Bay Area much  
22 sooner than it would if it is built.

23 MEC provides an insurance policy. So,  
24 for whatever reason the Northeast San Jose  
25 Reinforcement Project isn't approved, if a lawsuit

1 stalls it, if it isn't there for whatever reason,  
2 MEC provides the voltage margin, the voltage  
3 collapse margin that the North San Jose  
4 Transmission Project doesn't.

5 We speak of that in our testimony --  
6 Dan, can you find the page real quick? It's on  
7 page 28. And then in the appendices there are  
8 curves that support our conclusions there.

9 MR. RATLIFF: I have no further  
10 questions.

11 HEARING OFFICER FAY: Before we move to  
12 the next party for cross-examination I'd just like  
13 to mention our plan is to have dinner at 6:15.  
14 And we'll continue until then.

15 All right, City of San Jose.

16 MS. DENT: I was going to ask for a  
17 break, but I'll try to go ahead.

18 (Parties speaking simultaneously.)

19 HEARING OFFICER FAY: Well, we can take  
20 a five-minute break.

21 MS. DENT: Okay, thank you.

22 HEARING OFFICER FAY: I think that's  
23 reasonable.

24 (Brief recess.)

25 HEARING OFFICER FAY: Okay, we are back

1 on the record.

2 MS. DENT: Thank you. I just have a  
3 couple of sort of general questions first.

4 CROSS-EXAMINATION

5 BY MS. DENT:

6 Q Have any of you ever done local systems  
7 effect studies for other Energy Commission  
8 applications? Is this something that you've seen  
9 done on other Energy Commission applications?

10 MR. MILLER: I believe that the term was  
11 coined here by the staff witnesses.

12 MS. DENT: So this is so far unique to  
13 this proceeding, is that accurate?

14 MR. MILLER: As far as I know no other  
15 plant has asked for an override.

16 MS. DENT: Okay. And the local systems  
17 effect then wasn't described in the application  
18 for certification?

19 MR. MILLER: No.

20 MS. DENT: The next general question I  
21 have, and this also relates to the fact that we  
22 sort of have a new animal.

23 I appreciated your handing the map out  
24 and looking at the map, but the term natural  
25 service area, Metcalf Energy Center natural

1 service area, that was also coined specifically  
2 for this proceeding. There is -- in PG&E's  
3 lexicon there is no Metcalf natural service area,  
4 is there?

5 MR. MILLER: The concept of -- I don't  
6 know whether it's ever been called this before or  
7 not, but the concept of attempting to figure out  
8 what things serve, and how power flows is well  
9 defined standard practice for electric power  
10 engineers.

11 I suppose the biggest reference for that  
12 is attached in one of the appendices; it's the  
13 WSCC voltage collapse standards. And they ask you  
14 to sort of look at a radially connected area. On  
15 highly network area sometimes it's difficult to  
16 discern that.

17 Actually it was fairly easy to discern  
18 that in the case of the Metcalf substation. And  
19 when I got done I was very surprised at the  
20 predominance of the power supply that is focused  
21 on the Metcalf substation.

22 I might add that loss of two lines into  
23 a substation in some parts of the country is  
24 considered an unacceptable criteria, and would  
25 have been long since mitigated.

1 MS. DENT: But let's go back to the  
2 voltage collapse issue, since you mentioned that.  
3 So, is that really the focus, then, of the local  
4 systems effect testimony, the voltage collapse  
5 issue?

6 MR. MILLER: No, because the local  
7 system effects cover all six topic areas. The key  
8 underlying principles are found in the reduction  
9 of the losses, the reduction in the thermal  
10 overloads that allow Moss Landing to be operated  
11 synergistically. And then, of course, voltage  
12 collapse.

13 From the point of view of your  
14 neighbors, voltage collapse might be more  
15 important than the others because it has the  
16 potential of dragging down all of northern  
17 California, maybe even all of California, or  
18 perhaps even the WSCC.

19 MS. DENT: Well, I'm looking at page 8  
20 of your testimony, and you talk about the options  
21 available to address the San Jose Silicon Valley  
22 voltage collapse and transmission vulnerability  
23 problems.

24 And when you looked at options it really  
25 seemed to me that they did focus on voltage

1 collapse and transmission vulnerability. And it  
2 gets back to my question about the AFC.

3 As I understood the project originally,  
4 it's a merchant power plant and it's to sell power  
5 to the grid. And now with your local systems  
6 effect testimony it sounds like there's perhaps a  
7 secondary objective of the project? Or is it a  
8 side benefit of the project?

9 I'm trying to figure out how you feel  
10 this --

11 MR. MILLER: No, no, there's nothing  
12 different from this power plant and Calpine's  
13 attempt when it made this application than any  
14 other independent power producers' intents.

15 That is they plan to locate plants that  
16 are located at sites that are most advantageous to  
17 themselves.

18 In this case by locating the Metcalf  
19 Energy Center where it is, it guarantees that it  
20 will be run preferentially even to other plants of  
21 its same construction. And certainly  
22 preferentially to the 38-year average old  
23 generation that's in the Bay Area. So there's no  
24 change in intent.

25 Now, we have defined it further. In

1 other words, we've been forced to define all the  
2 benefits. And we hope we've captured a large  
3 percentage of those.

4 MS. DENT: Well, there is a benefit to  
5 Calpine in being designated a run, must run, or  
6 reliability must run, or however you say it.  
7 There is a benefit to Calpine in being that kind  
8 of plant, is there not?

9 MR. MILLER: Perhaps and perhaps not.  
10 It's not clear from a business strategy whether  
11 Calpine is better off with or without that  
12 designation.

13 MS. DENT: Well, --

14 MR. MILLER: What is clear is that MEC  
15 reduces the amount of those kinds of units that  
16 you need in the Bay Area.

17 MS. DENT: Well, I thought that your  
18 testimony was the MEC would replace some of those  
19 kind of units, not net reduction.

20 MR. MILLER: It is a net reduction. If  
21 you look at the calculation, we subtract out the  
22 585 megawatts in that case that was used for  
23 Metcalf's output.

24 MS. DENT: And Metcalf would replace  
25 those?

1                   MR. MILLER: By virtue of its location  
2                   it replaces 945 megawatts. So there's a net  
3                   reduction by putting the plant there that results  
4                   in \$11.4 million per year in benefits to the  
5                   ratepayers. Might be an important thing when you  
6                   have a utility that's teetering on the edge of  
7                   bankruptcy.

8                   MS. DENT: I want to go --

9                   MS. CORD: Would you repeat that last  
10                  benefit, that number you used? I just didn't hear  
11                  it.

12                 MR. MILLER: \$11.4 million per year.

13                 MS. DENT: I want to go back to the  
14                  natural service area concept and ask a couple  
15                  questions about the service area boundary.

16                 I believe in various places in your  
17                  testimony, your written testimony, you referred to  
18                  the natural service area boundary for Metcalf  
19                  substation as being coincident with the DeAnza and  
20                  San Jose divisions --

21                 MR. MILLER: Approximately coincident,  
22                  yes.

23                 MS. DENT: Well, I mean I'm looking at  
24                  the map that you handed out, and it overlaps it  
25                  some, but it certainly doesn't overlap it

1 completely. And there's significant parts of the  
2 San Jose DeAnza divisions left out of the Metcalf  
3 service area.

4 So I want to ask some questions about  
5 that.

6 MR. MILLER: Sure.

7 MS. DENT: First of all, the map you've  
8 handed out doesn't show how far east -- west, I'm  
9 sorry, doesn't show how far west either one of  
10 these boundaries go. So, how far west does the  
11 Metcalf quote-unquote natural service area go?

12 MR. MILLER: Basically to the Pacific  
13 Ocean.

14 MS. DENT: Okay, so all the way up to  
15 San Bruno and over then about Pacifica?

16 MR. MILLER: That's correct.

17 MS. DENT: And down to oh, along about  
18 Santa Cruz?

19 MR. MILLER: Um-hum.

20 MS. DENT: Okay.

21 MR. MILLER: When you get to the  
22 boundaries the analysis is fuzzy, because you're  
23 looking at the strength of the transmission lines.  
24 And the transmission lines might be many tens of  
25 miles in length. And so you've kind of got a

1 choice of where you go out of that boundary here  
2 or there.

3 So we drew it drawing on our experience  
4 as transmission planning engineers.

5 MS. DENT: But for PG&E planning  
6 purposes, the San Mateo portion of this Metcalf  
7 natural service area, is in a different PG&E  
8 planning area, isn't it?

9 MR. MILLER: It's in their Peninsula  
10 zone.

11 MS. DENT: It's a yes or no question, I  
12 mean, I really am trying to keep it short.

13 And for PG&E planning purposes, the  
14 DeAnza and San Jose division includes significant  
15 portions of north San Jose, Milpitas and Santa  
16 Clara, yet your service area does not, is that  
17 accurate?

18 MR. MILLER: I wouldn't characterize  
19 them as significant.

20 MS. DENT: You don't think that the  
21 electric demand in that portion of the DeAnza and  
22 San Jose's divisions is significant?

23 MR. MILLER: Not for the purposes of  
24 this analysis.

25 MS. DENT: Now, going to your prepared

1 testimony on page 6 you indicate that sometime  
2 during the 2003 - 2008 timeframe San Jose Silicon  
3 Valley will not be able to meet WSCC criteria.

4 Again, it gets back to my confusion  
5 about what area we're talking about. When you use  
6 the term in your testimony San Jose Silicon  
7 Valley, are you using this entire Metcalf natural  
8 service area, or are you talking about the DeAnza  
9 and San Jose subdivisions? What area are you  
10 talking about when you use the term San Jose  
11 Silicon Valley?

12 MR. MILLER: All of them in general.

13 MS. DENT: So, when you say on page 6  
14 that there's going to be a violation of criteria,  
15 you mean from Santa Cruz to Pacifica, clear over  
16 into Fremont and Milpitas and down through San  
17 Jose, Morgan Hill?

18 MR. MILLER: The criteria violation  
19 occurs at the Metcalf 230 kV buss.

20 MS. DENT: Well, what do you mean when  
21 you say the San Jose Silicon Valley area will not  
22 be able to meet the criteria? That's your  
23 testimony.

24 MR. MILLER: The --

25 MS. DENT: So are you just talking about

1 that buss, then?

2 MR. MILLER: Well, that buss serves the  
3 Silicon Valley area.

4 MS. DENT: And it serves, again, from --  
5 I'm still -- you've got this natural service area,  
6 you've got two PG&E service areas, people who live  
7 in this area wouldn't call Pacifica San Jose  
8 Silicon Valley, so I guess I'm having a little bit  
9 of difficulty interpreting your testimony, because  
10 of the different ways you've characterized the  
11 areas. And I'm trying to figure out if all of  
12 your testimony is supposed to reference this  
13 natural service area, or if it's supposed to  
14 reference something else.

15 MR. HARRIS: Can I ask for a question at  
16 this point?

17 MS. DENT: Well, what did he -- I asked  
18 it three times now, what did he mean -- would he  
19 tell me the northern boundary of San Jose Silicon  
20 Valley as used on page 6 of his testimony, the  
21 southern boundary, the eastern boundary and the  
22 western boundary.

23 MR. MILLER: The boundary that we have  
24 here is useful in electrical studies. You always  
25 have this difficulty of explaining that in

1 colloquial terms.

2 The black boundary shows, to the best of  
3 our ability, the service area of the Metcalf  
4 substation.

5 MS. DENT: And, again, that's been the  
6 area that will not be able to meet these criteria  
7 in 2003, 2008 as shown on page 6 of your  
8 testimony?

9 MR. MILLER: The electrical problems  
10 overlap. I mean if you have collapse at Metcalf  
11 230 kV buss you might cause collapse in the entire  
12 Bay Area, northern California or even the WSCC.

13 MS. DENT: All right, I'm going to go on  
14 to another page of your testimony, on page 7. And  
15 you indicated today that if Metcalf Energy Center  
16 had been in operation last year it would have  
17 prevented the curtailments that occurred in the  
18 South Bay area on June 14th.

19 And I want to ask whether or not local  
20 generation, again this gets back to what the area  
21 is that we're talking about. I didn't see you  
22 identify the amount that the South Bay area was  
23 short on June 14th, but --

24 MR. MILLER: By less than what MEC would  
25 have provided.

1 MS. DENT: So it was short by something  
2 less than 600?

3 MR. MILLER: Right, so MEC would have  
4 solved the problem which --

5 MS. DENT: Well, so would 600 megawatts  
6 of local generation anywhere else in the area have  
7 solved that problem, wouldn't it?

8 MR. MILLER: There are other places  
9 where you can site generation, but they need to be  
10 more or less in the Metcalf substation service  
11 area, yes.

12 MS. DENT: Well, let me ask you for a  
13 moment about the Bayview Hunters Point project in  
14 San Francisco that was approved and never built.

15 Do you know whether or not curtailments  
16 could have been avoided if that project had been  
17 built?

18 MR. MILLER: They wouldn't have helped.

19 MS. DENT: And what about the Northeast  
20 San Jose Reinforcement Project, if that project  
21 had been in on June 14th, and that project is  
22 designed to bring in 840 megawatts --

23 MR. MILLER: That's --

24 MS. DENT: -- into the service area,  
25 would that project have solved the problem?

1                   MR. MILLER: That's a transmission  
2 project, there's no generation associated with it.  
3 The answer --

4                   MS. DENT: It brings --

5                   MR. MILLER: -- to your question is no,  
6 that would not -- that project --

7                   MS. DENT: So, even --

8                   MR. MILLER: -- would not have prevented  
9 the --

10                   MS. DENT: -- if you had an additional  
11 840 megawatts into this service area it wouldn't  
12 have helped solve the problem that occurred?

13                   MR. MILLER: Your statement is incorrect.  
14 The generation you placed outside of the immediate  
15 service area, and transmission doesn't provide the  
16 benefits that reduce voltage collapse, at least  
17 not in the project that you've listed there.

18                   MS. DENT: So, was June 14th a voltage  
19 collapse problem, then?

20                   MR. MILLER: It's my understanding that  
21 the principal contingency that the ISO was  
22 concerned with was the loss of Pittsburg 7 and the  
23 Pittsburg Pasajara Newark lines.

24                   MR. WOOD: The Tesla 230, Tesla  
25 Metcalf 500 kV line and the loss of the Pittsburg

1 7 generation.

2 MR. MILLER: That's right, --

3 MS. DENT: So, I'll ask you the  
4 question. If the 230 kV reinforcement, the  
5 Northeast San Jose Transmission Reinforcement  
6 Project had been built, on June 14th, and it's  
7 PG&E's statement that that project was designed to  
8 bring 840 megawatts into the northern portion of  
9 the DeAnza and San Jose divisions, are you saying  
10 that that would have had no impact, little impact  
11 or unknown impact on the kind of curtailment that  
12 occurred on June 14th?

13 MR. WOOD: Unknown impact.

14 MS. DENT: Pardon?

15 MR. WOOD: Unknown.

16 MS. DENT: Unknown. Thank you. I'd  
17 like to ask if you would confirm for me that the  
18 PG&E position statement that's referenced on page  
19 7 of your testimony relates to the development of  
20 new generation anywhere in northern California,  
21 the Bay Area, and does not specifically address  
22 what you called Metcalf service area.

23 MR. HARRIS: Where are we on page 7, I'm  
24 sorry?

25 MS. DENT: On page 7 of your testimony,

1 references the PG&E position statement, I'm sorry,  
2 it's appendix FF, it's a footnote.

3 MR. HARRIS: Okay, footnote 5. Are you  
4 referring to the -- I'm sorry, is your question  
5 about the appendix or the --

6 MS. DENT: Correct. I'm asking them to  
7 confirm for me that the PG&E position statement  
8 does not specifically address Metcalf Energy  
9 Center or the Metcalf service area.

10 (Pause.)

11 MR. WILLIAMS: Why don't we stipulate  
12 there's no reference to Metcalf specifically and  
13 move on.

14 MR. WOOD: I think indirectly it does  
15 signify that Metcalf Energy Center is needed in  
16 that.

17 MR. WILLIAMS: No, it's very indirect,  
18 there's no specific reference --

19 HEARING OFFICER FAY: Mr. Williams,  
20 let's let the witness respond to the question.

21 MR. HARRIS: Can we have the question  
22 restated --

23 MS. DENT: Oh, I can do it, --

24 MR. HARRIS: -- make sure we understand  
25 what --

1 MS. DENT: -- I certainly can do it  
2 because I have it written down.

3 MR. HARRIS: Thank you.

4 HEARING OFFICER FAY: Great.

5 MS. DENT: Please confirm that the PG&E  
6 position statement referenced on page 7 of your  
7 testimony relates to the development of new  
8 generation in northern California and the Bay  
9 Area, and does not specifically mention the  
10 Metcalf service area, or the Metcalf Energy  
11 Center.

12 MR. WOOD: It does not mention it  
13 directly, but indirectly I think that the Metcalf  
14 Energy Center is included in that reference.

15 MS. DENT: Thank you. On page 10 of the  
16 testimony you indicate that one advantage to the  
17 MEC site is the project can be on line by 2003.  
18 Do I understand your testimony correctly that  
19 basically the sooner a project can come on line  
20 adding generation or relieving loading, I'm  
21 assuming, in the Metcalf service area, the more  
22 advantageous that project would be?

23 MR. WOOD: Yes, because we have a  
24 catastrophic outage that could occur now, today,  
25 that would be catastrophic to the South Bay area

1 and San Jose. So the sooner the better, yes.

2 MS. DENT: Whatever the project is, the  
3 sooner the better you can bring generation to this  
4 area, that's your testimony.

5 MR. MILLER: No, it's not whatever the  
6 project is. The point of Phil's testimony is that  
7 you throw on just any type of generation it's  
8 likely to be more polluting than a modern combined  
9 cycle unit is.

10 MS. DENT: I'm talking about from an  
11 electrical standpoint, that's what we're doing  
12 here today, we're doing local system effects. And  
13 the testimony was that an advantage to the project  
14 was that it could be brought online by 2003  
15 because of this shortage that apparently is going  
16 to occur in 2003.

17 MR. MILLER: One of the direct  
18 consequences of the local transmission constraints  
19 is that the generation needs to be in the South  
20 Bay area. Metcalf is a project that can be on by  
21 2003 that has substantial benefits in terms of  
22 emissions compared to other technologies that  
23 might replace it, if you can find a place to put  
24 them.

25 MS. DENT: I want to move on, you can

1 tell I'm just going in order on the pages of your  
2 testimony. I want to move on to page 12, and  
3 there's a statement that there are no sources of  
4 supply in the Newark area and lines into Newark  
5 are already pushing their limits.

6 Yet we've heard the testimony earlier  
7 today about the Northeast San Jose Reinforcement  
8 Project which is designed to bring additional  
9 power into the north San Jose area from Newark.

10 MR. MILLER: Please give me the specific  
11 reference.

12 MS. DENT: Page 12, it's the last  
13 sentence under the paragraph number three. There  
14 are no sources of supply in the Newark area and  
15 lines into Newark are already pushing their  
16 limits.

17 I mean is that really accurate?

18 MR. MILLER: Yes, the 115 kV lines that  
19 serve north San Jose are at their limits.

20 MS. DENT: So that's what the Northeast  
21 San Jose Transmission Reinforcement Project is  
22 proposed to alleviate, though, correct?

23 MR. MILLER: It helps with that, yes,  
24 but it doesn't relieve all the 115 kV overloads.

25 MS. DENT: And do you know the status of

1 that project?

2 MR. MILLER: It's important to remember  
3 that our analysis was done with the Northeast San  
4 Jose Project built into it.

5 MS. DENT: I have some more questions on  
6 that, but I'm asking just do you know the status  
7 of the Northeast San Jose Project?

8 MR. MILLER: I think that a final EIR  
9 was just released.

10 MS. DENT: Thank you. On pages 12 to 13  
11 of your testimony you present various estimates of  
12 annual load increases. A couple questions there.  
13 Have you looked at actual figures on load  
14 increases, just a topical issue obviously from the  
15 paper today is whether or not load increases are  
16 increasing, as everyone has suggested they might  
17 be?

18 MR. MILLER: I think the staff and the  
19 ISO based their projection on actual load  
20 increases.

21 MS. DENT: And do you know what date  
22 they were current to?

23 MR. MILLER: You might better ask the  
24 questions about the ISO's load estimate of the  
25 ISO.

1           MS. DENT: And so you've used their  
2 estimates, then, in your testimony because your  
3 testimony does present these estimates, so you  
4 used theirs, you didn't do any of your own?

5           MR. MILLER: Only after confirming that  
6 they were consistent with all the other available  
7 estimates, and that even assuming a 1 percent load  
8 growth, which is lower than any credible source  
9 predicts, that you'd need MEC by 2008.

10          MS. DENT: Now, did you have any data in  
11 your studies or in your testimony that  
12 differentiates between load growth from  
13 residential versus commercial or industrial  
14 sources, or did you make any attempt to  
15 differentiate load growth?

16          MR. MILLER: We looked at the various  
17 load predictions and verified that the ISO and  
18 CEC's load projection was reasonable, and used it.

19          MS. DENT: So in answer to the question,  
20 though, your testimony doesn't differentiate  
21 between the source of the load, so I'm assuming  
22 you didn't do any independent analysis of that?

23          MR. WOOD: I might want to add here that  
24 the load growth projections that are used for  
25 transmission planning are not necessarily the same

1 load growth projections that are used by  
2 economists. If we don't predict the outside  
3 conservatively, the lights go out. And we --

4 MS. DENT: That gets to my very next  
5 question.

6 MR. HARRIS: Can he finish his answer,  
7 though?

8 MR. WOOD: Yes, --

9 MS. DENT: I don't think he was  
10 answering the question I asked and I'm trying to  
11 move on.

12 HEARING OFFICER FAY: Well, presumably  
13 you want the answer to the question?

14 MS. DENT: Well, the answer, I'll object  
15 to the answer on the grounds that it was  
16 nonresponsive. But I'll let him go on if he wants  
17 to. It's up to you.

18 HEARING OFFICER FAY: Did that conclude  
19 your answer or --

20 MR. WOOD: That concludes my answer.

21 HEARING OFFICER FAY: Okay.

22 MS. DENT: Okay, so your estimates are  
23 all based on peak demand, that's what you were  
24 getting at, your estimates are based on peak  
25 demand, they're not based on average or median or

1 anything like that, they're based on peak demand?

2 MR. WOOD: That's correct. Anytime you  
3 do a study you look at the system in its most  
4 stressed condition, and that's usually the peak  
5 demand. But it's not always the peak demand.

6 MS. DENT: And again, you don't have any  
7 data or information in your testimony about  
8 whether the peak demand is related primarily to  
9 residential versus commercial or industrial  
10 demand?

11 MR. WOOD: The loads are predicted by  
12 PG&E, the ISO, the CEC. They go into a database  
13 and we study the physics of serving those loads.

14 MS. DENT: On --

15 MR. WOOD: According to WSCC criteria.

16 MS. DENT: On page 13 of your testimony  
17 there's a statement regarding unexpected voltage  
18 collapse that might occur if the South Bay area  
19 should peak with the rest of the load is not at  
20 peak.

21 Is there any evidence or data in the  
22 record --

23 MR. HARRIS: Molli, I'm sorry, when you  
24 do that can you give us a paragraph or some other  
25 way, because you go a little faster than my eyes,

1 I'm sorry.

2 MS. DENT: On page 13, it's the third  
3 paragraph, it's the next-to-the-last sentence in  
4 that paragraph.

5 Is there any evidence in the record that  
6 this peaking of the South Bay area load is  
7 predicted to occur at a different time than the  
8 rest of the area, and cause this deviation that  
9 you're referencing?

10 MR. HANSER: There is actually a  
11 forecast by the CEC that was done where they  
12 differentiated the peak demand time periods for  
13 the South Bay area versus the rest of the PG&E  
14 service territory. And what they noted was that  
15 it typically occurs for the South Bay area in the  
16 2:00 to 4:00 p.m. time period, whereas the  
17 remainder of the PG&E service territory tends to  
18 peak somewhere in the close to 4:00 to 6:00 p.m.  
19 time period.

20 That's a function of the differences in  
21 the meteorology of the different parts of the PG&E  
22 service territory.

23 MS. DENT: And thank you for that  
24 clarification, that's not part of the filed  
25 record, but that's your understanding of the --

1                   MR. HANSER: We included the CEC  
2 forecast, we referenced it in our first volume  
3 which was impacts of the MEC.

4                   MS. DENT: So, you think --

5                   MR. HANSER: It's cited there.

6                   MS. DENT: -- that's in the AFC, then?

7                   MR. HANSER: No, I said it was in our  
8 testimony that was our first --

9                   MS. DENT: Okay.

10                  MR. HANSER: -- that we first produced  
11 for socioeconomics.

12                  MS. DENT: Okay. Thank you.

13                  MR. MILLER: The CEC forecast was one  
14 that we looked at when we examined all the various  
15 forecasts.

16                  MS. DENT: Thank you. On page 16 of  
17 your testimony you referenced the path 15  
18 constraints on transmission lines which led up to  
19 the efficiencies that occurred in January of this  
20 year.

21                  MR. HARRIS: Where --

22                  MS. DENT: And I will look for the  
23 paragraph on page 15, page 16. It's up at the top  
24 of the page.

25                  Did the path 15 constraints that you're

1       referencing in that section of your testimony  
2       really affect all of northern California. Path 15  
3       is a major constraint to power getting from  
4       northern to southern California, isn't it?

5               MR. MILLER: Would you restate your  
6       question?

7               MS. DENT: Page 16 of the testimony, the  
8       top of the page, talks about path 15 constraints  
9       which led up to the deficiencies that occurred in  
10      December and January just recently.

11              And my question is path 15 constraints  
12      affect all of northern California, do they not?

13              MR. MILLER: Well, path 15 is -- depends  
14      on what your definition of northern California is.  
15      Path 15 is a cut plane, what transmission planners  
16      call a cut plane. And that cut plane is rated at  
17      a certain capacity during certain times.

18              And northern California is defined by  
19      that cut plane. And that cut plane includes  
20      several transmission lines.

21              MS. DENT: My point is though that the  
22      Metcalf service area, or the South Bay area wasn't  
23      unique -- is not unique in being constrained by  
24      path 15. I mean I believe the --

25              MR. WOOD: No, we just noted that the

1 Metcalf service area was, of all the areas in the  
2 northern part of California, the Metcalf service  
3 area was shorter than any other in the northern  
4 California area.

5 MR. MILLER: I might amplify on that,  
6 because the Metcalf Energy Center is within the  
7 Metcalf service area, which is within the Bay  
8 Area, which is in the northern California  
9 deficiency, it tends to be that generation there  
10 is more effective at eliminating path 15  
11 considerations than other places in the northern  
12 California.

13 MS. DENT: But a plant located anywhere  
14 in northern California would help alleviate the  
15 path 15 constraints?

16 MR. MILLER: But not as effectively.

17 MS. DENT: And is it true that there are  
18 improvements to path 15 currently under  
19 consideration to reduce that constraint?

20 MR. MILLER: I'm sure there are and they  
21 probably cost hundreds of millions of dollars.

22 MS. DENT: Are you aware that the  
23 Legislature has also requested expedited  
24 consideration of those --

25 MR. MILLER: And they still cost

1 hundreds of millions of dollars.

2 MS. DENT: And this project costs  
3 hundreds of millions of dollars, too, to be --

4 MR. MILLER: Not to the ratepayers.

5 MS. DENT: Are you saying that the  
6 ratepayers aren't going to have to pay for the  
7 power produced by the project?

8 MR. MILLER: No, I'm not at all. I'm  
9 saying that --

10 MS. DENT: Didn't think so.

11 MR. MILLER: I'm saying that if you  
12 build a transmission project that puts 600  
13 megawatts of generation where it's needed, you  
14 don't need 600 megawatts of transmission  
15 capability to import.

16 MR. WOOD: You still have to pay for the  
17 generation no matter where it comes from. You  
18 can't get a kilowatt hour out of a transmission  
19 line.

20 MS. DENT: Would you take a look at page  
21 15 of your testimony and again this is the top of  
22 the page. And I'm trying to get an estimate from  
23 this testimony about the peak shortage deficiency  
24 that you're saying occurred on January 2nd.

25 And I think from your earlier testimony

1 you indicated that the deficiency that you thought  
2 occurred back in June was a little less than the  
3 600 megawatts that Metcalf would provide.

4 And I --

5 MR. WOOD: I'm sorry, where are you?

6 MS. DENT: I'm on page 15 of your  
7 testimony, the top of the page. And we're talking  
8 about all these shortages and I'm trying to figure  
9 out what was the shortage amount that existed in  
10 the timeframe that you're talking about at the top  
11 of page 16.

12 MR. WOOD: Oh, I'm sorry, I was going to  
13 say the top of page 15 --

14 MS. DENT: I'm sorry --

15 MR. WOOD: -- is talking about WSCC  
16 and --

17 MS. DENT: I probably read it wrong.

18 MR. WOOD: Okay, would you restate the  
19 question now that I'm on the right page, please?

20 MS. DENT: We heard testimony a little  
21 earlier there was a little less than a 600  
22 megawatt shortage on June 14th. And I tried to  
23 add all these numbers up, myself, at the top of  
24 page 16. And it looked like there was a little  
25 under a 600 megawatt shortage for all of northern

1 California during this timeframe.

2 Did I --

3 MR. WOOD: There's two different  
4 problems. One is the peak problem and one is a  
5 offpeak problem.

6 So, --

7 MS. DENT: And is the peak problem --

8 MR. WOOD: So, --

9 HEARING OFFICER FAY: Just a minute, Ms.  
10 Dent. I think he was still answering.

11 MR. WOOD: Yeah, the peak problem is  
12 entirely different than the offpeak problem.

13 MS. DENT: And so --

14 MR. WOOD: We're talking about offpeak  
15 problem here, not the peak problem.

16 MS. DENT: The problem --

17 MR. WOOD: In January.

18 MS. DENT: -- in December and January --

19 MR. WOOD: Right.

20 MS. DENT: -- was an offpeak problem.

21 It was a problem that affected all of northern  
22 California. And again, I tried to do the numbers  
23 and it looked like a shortage of about 600  
24 megawatts. Is that right? Did I do the numbers  
25 wrong?

1 MR. WOOD: Well, I'll have to check your  
2 math, but I'm not sure what your math is.

3 MS. DENT: Well, I used your numbers and  
4 I just tried to subtract.

5 MR. WOOD: Okay, what are you  
6 subtracting from what?

7 MS. DENT: Let's see, you started out  
8 with the 4970, and we're talking about whether or  
9 not generation under construction would help  
10 alleviate that problem, so you subtract the 2940  
11 that's under construction, bringing you down to  
12 2030.

13 And then you --

14 MR. WOOD: And that's the deficit right  
15 there.

16 MS. DENT: That's the deficit.

17 MR. WOOD: Two thousand three --

18 MS. DENT: And then the path 15  
19 constraint, if you were able to bring the  
20 surpluses from southern California up, the path 15  
21 constraint, as I understood it, was 1436. Did I  
22 read that one right?

23 MR. WOOD: The deficit in northern  
24 California on that day was over 2000 megawatts --

25 MS. DENT: And that was for all of

1 northern California?

2 MR. WOOD: Right.

3 MS. DENT: Thank you.

4 MR. WOOD: I'm sorry, the deficit in

5 northern California is 4970, 4970 megawatts.

6 That's the deficit in northern California.

7 California as a whole was less than that. That

8 means there was a surplus in southern California.

9 MS. DENT: I understand that that was  
10 the deficit on that day, but I thought that you  
11 were -- you're referencing the generation under  
12 construction, which is all in northern California,  
13 Sutter, Delta Energy Center, Los Medanos, so the  
14 shortage with those on line in northern California  
15 would be the 2030?

16 MR. WOOD: Two thousand, right.

17 MS. DENT: Okay.

18 MR. WOOD: Still got a shortage with all  
19 that generation on line.

20 MR. MILLER: It's difficult to make  
21 conclusions about the shortages on a specific day  
22 with respect to the total amount of capacity that  
23 might be needed. This is an illustrative example  
24 of how a plant like MEC would have contributed  
25 directly to solving the problems.

1                   There's nothing that can be gained from  
2                   calculating these numbers in terms of saying how  
3                   much extra generation we should have had on that  
4                   particular day.

5                   MS. DENT: I didn't pick the examples,  
6                   you picked the examples. I'm just asking you  
7                   questions about --

8                   MR. MILLER: Yeah, it was a good example  
9                   of --

10                  MS. DENT: -- the examples you picked.

11                  MR. HANSER: I'd like to make two points  
12                  with that. And just --

13                  MS. DENT: I'm going to ask that the  
14                  question, if the answer is going to be responsive  
15                  to the question, is it going to give a different  
16                  answer than 2030 or not?

17                  MR. HARRIS: Let's let him answer and  
18                  then you can object if it's not.

19                  MR. HANSER: The first thing is that you  
20                  can't do the simple subtraction because the fact  
21                  is that having the 2000 megawatts doesn't  
22                  guarantee that it's deliverable to that point. So  
23                  that's the first point.

24                  All right, simply having it can't go  
25                  through the simple arithmetic of saying, oh,

1 here's 2000 more megawatts, therefore on that I  
2 don't need any more.

3 The second problem that arises is that  
4 has to be based on a reliability criteria and you  
5 may not be able to, on the basis of reliability,  
6 deliver that entirely also.

7 So there are two reasons why when one  
8 sits down and says okay, I've got x numbers of new  
9 megawatts, I don't necessarily have the capability  
10 of saying that's all deliverable and capable of  
11 meeting it.

12 That also goes, by the way, for that 847  
13 megawatts of transmission. Simply because you  
14 have the capability under a certain thermal  
15 loadings for 800 megawatts to come through doesn't  
16 mean electrically that, in fact, that amount is  
17 deliverable.

18 And that's repeatedly the problem that  
19 arises in northern California. In fact, it's not  
20 true that just building generation anywhere in  
21 northern California will relieve the SP 15  
22 problem.

23 We already know that, for example, when  
24 you're maxing out hybrid facilities in northern  
25 California, that in fact aggravates the SP 15

1 problem that arises -- NP 15 and SP 15. And  
2 that's been in a number of different studies that  
3 were produced by the ISO.

4 So, it's incorrect to sit around and go  
5 making simple arithmetic and saying all these  
6 things add up because, in fact, it fails to  
7 account for the electrical constraints and the  
8 problems that arise in delivering the energy to  
9 the place it needs to be done.

10 And the whole thrust of this discussion  
11 should be focused on that problem that arises, not  
12 on simply doing the merest of arithmetic and then  
13 going off.

14 MS. DENT: Is everybody done answering  
15 my last question? Okay, I'm going to go on to the  
16 next question and it actually follows right up on  
17 what you said.

18 HEARING OFFICER FAY: Just before you  
19 start, I'll indicate that we've got four minutes  
20 till dinner. Can I just ask you how much more you  
21 have? Just roughly.

22 MS. DENT: Probably about 20 minutes.

23 HEARING OFFICER FAY: Well, go ahead  
24 until the break.

25 MS. DENT: Okay. On page 17 of your

1 testimony at the bottom of the page, you indicate  
2 that MEC is located close to the Silicon Valley  
3 load.

4           Could you tell me where you think the  
5 Silicon Valley load center is?

6           MR. MILLER: The Silicon Valley load is  
7 served primarily by the Metcalf substation.

8           MS. DENT: Well, I'm asking you to tell  
9 me where in the natural boundary service area for  
10 the Metcalf substation you think the greatest load  
11 is centered, if you have an opinion.

12           Well, if I were to ask you whether or  
13 not you think that there is more load created by  
14 industrial development in the portions of the  
15 DeAnza and San Jose divisions, that you've  
16 excluded from the Metcalf service area, than there  
17 is for the residential area that you've primarily  
18 included in your service area, would you have any  
19 statement on that?

20           You've used the word close to the load,  
21 and I'm trying to figure out where you think the  
22 load is. Is it evenly spread out all across this  
23 area? Is it concentrated in a particular area?

24           MR. MILLER: The load distribution we  
25 use was the load distribution that was in the

1 power flow cases that the ISO used to come to  
2 their conclusions in the FSA analysis.

3 MS. DENT: And so they used your Metcalf  
4 service area boundary, you think, for defining  
5 where load was in Silicon Valley?

6 MR. MILLER: No, you have the process  
7 exactly backwards.

8 MS. DENT: Well, who came up with the  
9 boundary for the Metcalf service area? Who came  
10 up with that new concept, the Metcalf service  
11 area? Was that Calpine, or was that the CEC or --

12 MR. MILLER: We did.

13 MS. DENT: So you told them what you  
14 thought the boundary was, and then within that  
15 area they did some load projections, and they  
16 distributed the load within that area?

17 MR. MILLER: No, again, you have the  
18 process backwards. We took the power flow case,  
19 which has a load distribution, and we also  
20 analyzed it according to our experience, according  
21 to WSCC standards for determining what a radial  
22 area was. We looked at the ratings of all the  
23 lines serving the particular area; picked the  
24 lowest ratings.

25 And we came up with a conceptual

1 representation of the Metcalf substation service  
2 area.

3 HEARING OFFICER FAY: We will now break  
4 for dinner.

5 MS. DENT: Thank you.

6 (Whereupon, at 6:25 p.m., the hearing  
7 was adjourned, to reconvene at 7:10  
8 p.m., at this same location.)

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## 1 EVENING SESSION

2 7:10 p.m.

3 HEARING OFFICER FAY: Okay, we are back  
4 on the record. We'll continue with San Jose's  
5 cross-examination of the applicant's panel on  
6 local system effects.

7 MS. DENT: Thank you.

8 CROSS-EXAMINATION - Resumed

9 BY MS. DENT:

10 Q Before we took the break I was asking  
11 some questions about the Silicon Valley load. And  
12 I'd like to ask you to take a look at the bottom  
13 sentence, the sentence at the bottom of the page  
14 18.

15 MR. WOOD: Which page?

16 MS. DENT: 18, the last full sentence:  
17 Assuming that a plant could be built at or near  
18 the Los Isteros Newark substations. It would have  
19 a bigger impact on losses than MEC.

20 And then the sentence immediately before  
21 that indicates that the Tesla location is less  
22 favorable because energy from Tesla must use the  
23 transmission system to reach the load.

24 And my question is isn't this statement  
25 confirmation that the Los Isteros and Newark

1       substation locations are actually closer to the  
2       load center than the Metcalf location?

3               MR. MILLER:  No.

4               MS. DENT:  So even though they would  
5       have a greater impact on reducing losses, you have  
6       no -- do you think they are or are not closer to  
7       the load center?

8               MR. MILLER:  The statement is that they  
9       would reduce losses more efficiently than MEC.  
10       But that fact doesn't eliminate the fact that MEC  
11       has its own losses that it reduced, and they're  
12       estimated two different ways in our testimony.

13              MS. DENT:  Well, I'm asking specifically  
14       about the manner in which Los Isteros and Newark  
15       would have a bigger impact on losses than MEC.  
16       What's the reason for that bigger impact on  
17       losses?

18              MR. MILLER:  That's just the way the  
19       power flow --

20              MS. DENT:  And it has nothing to do with  
21       where the load is located?

22              MR. MILLER:  Newark and its vicinity is  
23       a demand center, and as we said in our testimony  
24       locating a generating plant there is a good idea.  
25       However, it doesn't have the unique benefits that

1           locating a plant at MEC has.

2                       It has other unique benefits. One of  
3           those unique benefits is that it reduces the  
4           losses to a greater extent --

5                       MS. DENT: And now is the same true of  
6           Los Isteros, it is near a demand, I guess you used  
7           the term demand and I use the term load, and I'll  
8           certainly defer to you on that, is Los Isteros  
9           also near a demand center, then?

10                      MR. MILLER: Los Isteros and Newark are  
11           very similar in their responses because if you  
12           look at Los Isteros it's a radial connection to  
13           the Newark substation as proposed. So there's  
14           very little difference.

15                      We analyzed them at two different  
16           locations primarily because the CEC had them as  
17           different locations. There really isn't much  
18           difference in their response.

19                      So, yes, Los Isteros serves the same  
20           area that the Newark substation serves. It does  
21           not serve the Metcalf service area.

22                      MR. HANSER: Or south San Jose.

23                      MS. DENT: Now, all of the various power  
24           flow analyses that you ran for Metcalf Energy  
25           Center and for the alternatives, those are -- they

1 look to me to be very technical and they look to  
2 me to be very time consuming, and very detailed  
3 and very site specific. Am I correct about that,  
4 that each one of those has to be run for the  
5 specific site, for the specific other inputs into  
6 the equation?

7 MR. MILLER: No. Once you've run enough  
8 of these studies you get a sense of what happens  
9 in other locations, and a conceptualization of  
10 what the results are.

11 And that's, I think, one of the problems  
12 you're having here is that we're attempting to  
13 conceptualize the results in a broader way. And  
14 sometimes when you're trying to look at the forest  
15 it gets confusing then when you shift to look at  
16 the trees.

17 MS. DENT: So, are you saying that you  
18 wouldn't need to do any sort of lengthy analysis  
19 at all to look at some other alternative that's  
20 not, you didn't look at it all. Some, I don't  
21 know, site in San Mateo for example. Are you  
22 saying that you could do that off the top of your  
23 head, or would you need to take a little more time  
24 to do it?

25 MR. MILLER: I could give you my

1 engineering judgment off the top of my head.

2 MS. DENT: And would it matter where it  
3 was, or what size it was?

4 MR. MILLER: Yeah, for example, I  
5 haven't done very many studies in southern  
6 California, so I would be at a disadvantage if I  
7 were to try to give you answers about southern  
8 California.

9 MS. DENT: So you think it would be very  
10 easy then to analyze different scenarios, other  
11 than the ones that you have analyzed?

12 MR. MILLER: Somebody could do it if  
13 there were a purpose to it.

14 MS. DENT: And you think you could do it  
15 off the top of your head?

16 MR. MILLER: I could give you  
17 significant insight off the top of my head in some  
18 cases, yes.

19 MS. DENT: Thank you. Oh, I'm going to  
20 go back to the Northeast San Jose Reinforcement  
21 Project for just one question.

22 On page 29 of the testimony. It's  
23 really the entire paragraph there. You indicate  
24 that there's -- the second full paragraph, there's  
25 no guarantee that the Northeast San Jose

1 Transmission Reinforcement Project will be built.

2 And for 2005 MEC resolves the problem  
3 that that project solves.

4 MR. WOOD: I'm sorry, where are you  
5 reading from?

6 MS. DENT: I'm reading your second  
7 paragraph there, although the need for this  
8 project is evident, --

9 MR. WOOD: Okay.

10 MS. DENT: I'm assuming because of the  
11 earlier material that you're referring to the  
12 Northeast San Jose Transmission Reinforcement  
13 Project.

14 So that your testimony is that MEC  
15 provides insurance against the supply catastrophe,  
16 that's your word, that results if the project is  
17 not approved and completed.

18 Well, then do I understand that if the  
19 Northeast San Jose Transmission Reinforcement  
20 Project is approved and completed, it resolves  
21 this supply catastrophe that you have just  
22 referenced at the top of page 29?

23 MR. MILLER: No, not at all.

24 MR. WOOD: Not at all.

25 MR. MILLER: The reference here is that

1 in 2005 we've already shown that you need the MEC  
2 plant. So now we're looking at, okay, what  
3 happens if Los Isteros isn't built. And what the  
4 analysis shows is that MEC provides some benefits  
5 against that happening.

6 MS. DENT: So now we've gone from  
7 needing MEC in 2003 to needing it in 2005, is that  
8 what you just said?

9 MR. MILLER: Somewhere in the 2003 to  
10 2008 time period, depending on the load forecast.

11 MS. DENT: Because so now we're up to  
12 2008 when we might --

13 MR. MILLER: No, --

14 MR. WOOD: Well, I would argue you need  
15 it today for the catastrophic outage of the N-2.

16 MR. MILLER: Yeah, for voltage collapse  
17 the conclusion was that some time in the period  
18 between 2003 and 2008, depending on the load  
19 forecast that you accept, you need it.

20 You accept a very unreasonably low load  
21 forecast, you need it in 2008. If you accept an  
22 aggressive load forecast you need it in 2003.

23 MS. DENT: And your testimony is that  
24 the Northeast San Jose Transmission Reinforcement  
25 Project doesn't address that problem at all?

1           MR. MILLER: Oh, no, it addresses the  
2 problem. It's just that you build Northeast San  
3 Jose and then you need MEC. All of the upgrades,  
4 the Moss Landing Power Project, LMEC, DEC, the  
5 second line from Tesla to Newark, all those are  
6 in place in our analysis. Including the Northeast  
7 San Jose Project.

8           MS. DENT: And it postpones this  
9 catastrophe that you just talked about from 2003  
10 to 2005, maybe, and then to 2008?

11          MR. MILLER: It provides insurance. If  
12 you don't have MEC and you don't have Northeast  
13 San Jose Transmission Project, you're in a world  
14 of hurt.

15          MS. DENT: Well, let's assume that the  
16 Northeast San Jose Transmission Reinforcement  
17 Project is built.

18          MR. MILLER: Then you need MEC to  
19 prevent voltage collapse in the timeframe of 2003  
20 to 2008.

21          MS. DENT: And that's --

22          MR. MILLER: You need it immediately for  
23 a loss reductions, thermal overloads, prevention  
24 of the double contingency events.

25          MS. DENT: But again, if the Northeast

1 San Jose Transmission Reinforcement Project is  
2 built, the primary thing you need MEC for then is  
3 the voltage collapse problem that would occur in  
4 the 2000 --

5 MR. MILLER: Not the primary thing.  
6 It's one of the things that it does well. Again,  
7 the Northeast San Jose Transmission Project does  
8 nothing about the double contingency collapse. It  
9 does nothing about the unique losses associated  
10 with MEC. It does nothing about the synergistic  
11 effects with Moss Landing.

12 MS. DENT: So, those are then -- you've  
13 just listed for me then the very specific things  
14 that MEC adds, is that it? Have you finished?

15 MR. MILLER: Well, including voltage  
16 collapse, yeah. I mean it's pretty much outlined  
17 in the testimony.

18 MS. DENT: Okay, thank you. I have a  
19 couple other issues that I want to turn to.

20 I'd like to ask Calpine to address  
21 whether or not it has its own supply, a contract  
22 for gas for this facility, or whether Calpine's  
23 planning to buy the gas from --

24 MR. HARRIS: I'm going to object --

25 MS. DENT: -- from PG&E?

1 MR. HARRIS: -- on the basis that it's  
2 not relevant to the direct testimony --

3 MS. DENT: It's very relevant. It's  
4 under fuel availability.

5 MR. HARRIS: It's not --

6 MS. DENT: You've introduced evidence on  
7 reliability. I'd say that if this plant can't get  
8 fuel it's not going to be very reliable.

9 MR. HARRIS: Again, I'll object on the  
10 basis it's beyond the scope of the direct  
11 testimony.

12 HEARING OFFICER FAY: Is it in this --

13 MS. DENT: They have testified on  
14 reliability. They have testified that this  
15 plant --

16 MR. HARRIS: A long time ago.

17 MS. DENT: -- produces unique reliable  
18 benefits.

19 HEARING OFFICER FAY: Well, you know, --

20 MR. HARRIS: Let's get to a page in this  
21 testimony --

22 HEARING OFFICER FAY: -- I'm going to  
23 give her a minute to try to tie this in. And it's  
24 up to the witnesses if they're qualified to  
25 respond.

1 MS. DENT: Well, let me ask this  
2 question. Do you think the plant -- you've  
3 testified that the plant has reliability benefits,  
4 there's a section in your testimony labeled  
5 reliability.

6 Will the plant be reliable if it doesn't  
7 have a supply of natural gas?

8 MR. MILLER: In order to run the plant  
9 has to have a supply of gas.

10 MS. DENT: Does Calpine have its own  
11 contract for gas --

12 MR. HARRIS: I'm going to object again.

13 MS. DENT: Where are you planning to get  
14 the gas from?

15 MR. HARRIS: It's not within the scope  
16 of --

17 HEARING OFFICER FAY: I understand, I  
18 understand, let's hear from the witnesses if they  
19 know.

20 MR. MILLER: Nobody on this panel is  
21 expert on Calpine's arrangements or even has any  
22 knowledge of Calpine's arrangements for gas  
23 supply.

24 MS. DENT: Thank you. And if the plant  
25 goes out because, for any reason, lack of gas,

1           unforeseen equipment failures, it's not going to  
2           be able to supply the local benefits that you  
3           outlined, is it?

4                       MR. MILLER:  It's far more likely that  
5           some of the aging generation in the Bay Area will  
6           go out.

7                       MS. DENT:  No, I wasn't -- but I want  
8           you to answer my question.  I get to ask the  
9           questions.

10                      If Metcalf Energy Center goes out  
11           because of unscheduled outages, lack of natural  
12           gas, unforeseen equipment failures, it will not be  
13           able to supply the local benefits that you have  
14           analyzed, will it?

15                      MR. MILLER:  Yes, but it's far more  
16           likely that the aging generation in the Bay Area  
17           is going to be out.

18                      MR. WOOD:  The WSCC criteria addresses  
19           plant outages.  And those would be included in any  
20           planning studies that include Metcalf.

21                      MS. DENT:  So your testimony is that  
22           even if a plant goes -- even if there's no natural  
23           gas that's going to be able to provide these local  
24           system benefits?

25                      MR. HARRIS:  It's been asked and

1 answered.

2 MS. DENT: It has not been answered.

3 HEARING OFFICER FAY: Sustained.

4 MR. HARRIS: It has been answered.

5 HEARING OFFICER FAY: Sustained.

6 MR. WOOD: It's not in the realm of our  
7 testimony of gas supply. But we do look at plant  
8 outages and unit outages and substation outages  
9 and transmission line outages in all of the  
10 criteria that we study.

11 MS. DENT: There was a considerable  
12 amount of your testimony, I think, relating to the  
13 weakness, I'm not using the right word for it, but  
14 the weakness of the line coming in from Moss  
15 Landing, and the unavailability of power from Moss  
16 Landing to get into the Metcalf substation.

17 Am I saying that --

18 MR. MILLER: It's not weak --

19 MS. DENT: -- in layperson's terms  
20 right?

21 MR. MILLER: It's not weak, it's just  
22 used up.

23 MS. DENT: Okay. Are you aware whether  
24 or not dynamic thermal rating was used to evaluate  
25 the availability of those lines for more power?

1           MR. MILLER: In our study we used the  
2 normal thermal ratings as posted currently.

3           MS. DENT: So do you know whether PG&E  
4 has done dynamic thermal rating on those lines?

5           MR. MILLER: I presume not, because they  
6 would have posted it in their power flow case.  
7 But they may have.

8           MS. DENT: And are you aware that there  
9 is technology available to actually look at real  
10 time information on those lines?

11          MR. MILLER: Surely; we're trying to  
12 utilize it to get the power out at DEC.

13          MS. DENT: And do you know whether or  
14 not that was used to test whether or not those --

15          MR. MILLER: We use the existing normal  
16 two foot per second ratings in our calculations.

17          MS. DENT: And does that use real time  
18 information or is that a model?

19          MR. MILLER: That's the ratings that  
20 PG&E assigns it. It does not use real time  
21 information.

22          MS. DENT: So the answer is you did not  
23 use a real time information technology?

24          MR. WOOD: Those are the current ratings  
25 today. There are no other ratings, there are no

1 dynamic ratings for those lines today. And to our  
2 knowledge, there are none on the horizon.

3 MS. DENT: Do you know whether or not  
4 PG&E did do dynamic thermal rating on lines into  
5 Metcalf Energy Center back in 1990?

6 MR. MILLER: 1990?

7 MS. DENT: Um-hum.

8 MR. MILLER: I have no idea what they  
9 did a decade ago.

10 MS. DENT: Thank you. That's the end of  
11 my questions.

12 HEARING OFFICER FAY: Okay. Now Santa  
13 Teresa.

14 MS. CORD: Yeah, I have some questions,  
15 but Mr. Alton is going to ask the first questions  
16 for our group. Thank you.

17 MR. ALTON: Hi, my name's Tim Alton,  
18 A-l-t-o-n.

19 CROSS-EXAMINATION

20 BY MR. ALTON:

21 Q Start at the end of the testimony, you  
22 talked about the benefits of deferring the  
23 Northeast San Jose -- sorry, you talked about the  
24 benefits of MEC in the report on page 53 they talk  
25 about eliminating or deferring T011, which is the

1 Northeast San Jose Transmission Reinforcement  
2 Project.

3 Now, on page 13 of that report is  
4 specifically states one large generator, 500  
5 megawatt size, interested in locating in this  
6 area, is indicated they will not be able to  
7 proceed unless the proposed project is built since  
8 they require the ability to market their power  
9 during off peak periods.

10 And yet, the --

11 MR. WOOD: I'm sorry, Tim, where are you  
12 reading from?

13 MR. ALTON: Sorry, I'm reading from the  
14 Northeast San Jose report, itself, but on page 53  
15 of --

16 MR. WOOD: The rebuttal testimony?

17 MR. ALTON: No. Yeah, yeah. It says  
18 may defer the need for the \$77 million Northeast  
19 San Jose Transmission Reinforcement, so this is  
20 identified as one of the unique --

21 MR. WOOD: Would you please let me find  
22 it first.

23 MR. ALTON: Sorry, page 53.

24 MR. WOOD: And that's in the rebuttal  
25 testimony?

1 MR. ALTON: That's in --

2 MR. HARRIS: It's the Brattle Group  
3 testimony --

4 SPEAKER: The AFC, in the AFC.

5 MR. ALTON: No, it's not in the AFC.

6 MR. HARRIS: It's the Brattle report.

7 MR. ALTON: It's in whatever you handed  
8 out tonight.

9 MR. HANSER: Socioeconomics.

10 MR. ALTON: But it was mentioned by --  
11 it was mentioned as a benefit.

12 MR. HANSER: It's a potential benefit.

13 MR. ALTON: Right.

14 MR. HANSER: We didn't say it was a  
15 certainty. In fact, that's why the range of  
16 transmission benefits go from something fairly  
17 small to -- yeah, we listed that as a potential  
18 benefit. We didn't say it was an absolute  
19 certainty. That would be -- because the  
20 indication was from PG&E was that if MEC was built  
21 they would have the potential for deferring that  
22 reinforcement of that line.

23 It's in the testimony that PG&E put  
24 forward. And there's a citation in the report to  
25 that potential deferment.

1                   MR. ALTON: But the report for the  
2 Northeast San Jose Transmission Reinforcement  
3 Project says that you couldn't put a 500 megawatt  
4 generator in the area required for the  
5 reinforcement unless it was built.

6                   HEARING OFFICER FAY: Is that a  
7 question?

8                   MR. HANSER: Is that a question, yeah,  
9 I'm trying --

10                  MR. ALTON: Yeah, I'm trying to figure  
11 out how you included it in a project that you can  
12 defer, when the project specifications said it was  
13 precluded.

14                  MR. HANSER: We contacted PG&E and in  
15 fact got the report from PG&E which said  
16 essentially that the building of the MEC plant  
17 could potentially postpone the construction of the  
18 northeast corridor reinforcement.

19                  We have a report, and I think we have a  
20 citation in there of it. That's why it was  
21 included.

22                  MR. ALTON: Okay, well, the citation on  
23 page 53 is the PG&E Northeast San Jose  
24 Transmission study report 1998, page 12. And yet  
25 on page 13 it says you can't put a 500 megawatt

1 power plant in northeast San Jose, which is where  
2 the power's needed unless you build Los Isteros.

3 MR. HANSER: Okay, but that 500 megawatt  
4 plant is not going into northeast San Jose.

5 MR. ALTON: Right, --

6 MR. HANSER: So I don't understand what  
7 the question is.

8 MR. ALTON: Isn't northeast San Jose  
9 where the power is needed for the Northeast San  
10 Jose Transmission Reinforcement Project?

11 MR. MILLER: No, the statement's being  
12 taken out of context. The statement deals with a  
13 once proposed Calpine project at the Los Isteros  
14 substation.

15 That project, the statement there is  
16 that that project cannot be built without the Los  
17 Isteros substation.

18 MR. ALTON: Okay. And that project  
19 would have provided 500 megawatts into northeast  
20 San Jose?

21 MR. MILLER: Five or 600.

22 MR. ALTON: Okay. And the idea is the  
23 Northeast San Jose Transmission Reinforcement  
24 Project it says it can provide 800 megawatts into  
25 northeast San Jose?

1           MR. MILLER: No, the transmission line  
2           can't provide anything. It can provide you a  
3           means to transport the energy there.

4           MR. ALTON: Right, okay. So, if you  
5           have to have that reinforcement project to provide  
6           transmission capacity for 800 megawatts into  
7           northeast San Jose, then don't you need the power  
8           plant in northeast San Jose to displace that  
9           project? Doesn't that project indicate that all  
10          the transmission lines are full into northeast San  
11          Jose?

12          MR. MILLER: The reason for building the  
13          transmission lines, the 230 kV project, is the  
14          underlying 115 kV system is overloaded.

15          MR. ALTON: Right, and it's the  
16          underlying 1 kV (sic) system that supplies power  
17          currently --

18          MR. MILLER: 115 kV.

19          MR. ALTON: -- 115 kV into San Jose,  
20          northeast San Jose currently?

21          MR. MILLER: Currently the 115 kV system  
22          provides power into northeast San Jose, yes.

23          MR. ALTON: It's currently at max?

24          MR. MILLER: It's currently near its  
25          maximums, yes.

1                   MR. ALTON:  And that's why you need the  
2                   transmission reinforcement project?

3                   MR. MILLER:  That's one of the primary  
4                   reasons, yes.

5                   MR. ALTON:  And so how can MEC in south  
6                   San Jose provide --

7                   MR. HANSER:  It doesn't, no, you're  
8                   missing the point.  The point was, and I'll read  
9                   the line, the line says:  Since the San Jose area  
10                  is a net importer of power the MEC might defer the  
11                  need for at least some part of the transmission  
12                  project by supplying power within the area.

13                  What we were trying to say is you don't  
14                  have to build 800 megawatts of transfer  
15                  capability.  You could reduce the size of that  
16                  transfer capability.  Didn't say we were going to  
17                  eliminate it, but --

18                  MR. ALTON:  Right, --

19                  MR. HANSER:  -- it just says you're  
20                  going to reduce some of it.  And that was the  
21                  point.

22                  MR. ALTON:  So did you prorate the  
23                  amount to 600 over 800?

24                  MR. HANSER:  Yeah, we did, actually.

25                  And --

1           MR. ALTON:  Okay, so how do you build a  
2           600 megawatt power plant in northeast San Jose?  
3           How do you defer 600 megawatts getting into  
4           northeast San Jose?

5           MR. HANSER:  Well, I'm not saying, --  
6           what we said was some portion of it, based on  
7           PG&E's own criteria, would be deferrable.  We took  
8           a small portion out of the 800 megawatts, 200  
9           megawatts or so, basically of the transfer  
10          capability.  And we said MEC could supply some  
11          small portion of it.  And we said that's the part  
12          that we would include.

13          And that's what we put as a lower bound  
14          of the transmission benefit, zero.  We said it's  
15          possible none of these projects are deferrable.

16          So when you go and look at the  
17          calculations that we do for that, you'll see that,  
18          in fact, there's a range of values --

19          MR. ALTON:  Right.

20          MR. HANSER:  -- that goes from  
21          essentially nothing to I think a max of about --  
22          let me see if I can find it --

23          MR. ALTON:  I think it was 45.

24          MR. HANSER:  \$45 million?

25          MR. ALTON:  Um-hum.

1                   MR. HANSER: Which is a trivial amount  
2 given the fact that the cost of a transmission  
3 line in the San Jose area roughly runs \$10 million  
4 per mile.

5                   If you're going to build transmission in  
6 this area, it's anywhere from \$2 million to \$10  
7 million a mile.

8                   MR. ALTON: That's in an urban area?

9                   MR. HANSER: That's in this area.

10                  MR. ALTON: That's in an urban area?

11                  MR. HANSER: That's right.

12                  MR. ALTON: Okay.

13                  MR. MILLER: The figure for the Los  
14 Isteros line is about \$10 million a mile. The  
15 line is 7.3 miles long, and I believe the total  
16 figure is on the order of \$70 million to buy it.

17                  MR. ALTON: No, the 70 million includes  
18 the substation.

19                  MR. MILLER: Well, you got to have a  
20 substation to terminate a line in.

21                  MR. ALTON: Right. But the line,  
22 itself, isn't seven times 10 million.

23                  MR. WOOD: But a line built nowhere to  
24 nowhere doesn't do you much good.

25                  (Parties speaking simultaneously.)

1                   MR. ALTON: I agree, absolutely agree  
2                   with that.

3                   So, okay, I think we've beaten that one  
4                   to death. Thank you.

5                   Did you state that the N2 double line  
6                   outage contingency is sold or reduced by MEC?

7                   MR. MILLER: The consequences of that  
8                   contingency are reduced by MEC, yes.

9                   MR. ALTON: So it would have to reduce  
10                  the less load in this area, then?

11                  MR. MILLER: That's right, you'd have to  
12                  subtract.

13                  MR. WOOD: We didn't do an optimal  
14                  study. It's speculated that it might solve it,  
15                  but we did a quick study to show that it would  
16                  reduce the amount of curtailment by 1000 megawatts  
17                  in the San Jose area.

18                  MR. ALTON: Okay, let's go over that  
19                  area again. Are we talking about the 3000  
20                  megawatt load area which is San Jose plus DeAnza?

21                  MR. WOOD: We're talking about the loads  
22                  closest to Metcalf, which are the south San Jose  
23                  area.

24                  MR. ALTON: Well, there isn't 3000 --  
25                  sorry, there isn't 1000 megawatts of load in south

1 San Jose to be eliminated.

2 MR. WOOD: Well, you're going to have to  
3 shed beyond that, then, because our studies show  
4 that it's going to be say 2000 megawatts without  
5 it. And I don't remember the exact figures, but  
6 the difference is about 1000 megawatts with it.

7 MR. ALTON: Okay.

8 MR. WOOD: So you actually get more bang  
9 for your buck from the megawatts that are there,  
10 and with some optimal operations you might solve  
11 the problem.

12 MR. MILLER: The reason you get more  
13 bang for your buck again goes to the fact that if  
14 you put the generation at the Metcalf substation  
15 you can import some Moss Landing power that you  
16 can't import otherwise.

17 And that's true when the 500 kV lines  
18 are in, and it's true when they're not.

19 MR. ALTON: Going back to something you  
20 talked about, Newark, you said last year -- I'm  
21 sorry, you didn't mention Newark -- last year MEC  
22 would have -- if MEC was there last -- last year  
23 on 6/14 we had rolling blackouts, and MEC would  
24 have prevented those curtailments.

25 Wasn't the curtailments because the

1 Newark buss was sagging?

2 MR. WOOD: That's where the measurement  
3 is taken. It's a measurement point on the PG&E  
4 system. They monitor that voltage level at that  
5 buss. That's not necessarily where the voltage  
6 was sagging.

7 But when the voltage reaches a certain  
8 point at that buss, then that's when PG&E has to  
9 take action.

10 MR. ALTON: Was the Metcalf 230 kV buss  
11 in trouble?

12 MR. WOOD: I'm sorry?

13 MR. ALTON: Was the Metcalf 230 kV buss  
14 in trouble on that day?

15 MR. WOOD: In trouble? You bet'cha.  
16 The whole South Bay was in trouble that day.

17 MR. ALTON: Okay. So the generation at  
18 MEC would support Newark 230 kV buss, is that what  
19 you're saying?

20 MR. WOOD: Yes, yes, definitely.

21 MR. ALTON: Okay.

22 MR. WOOD: It would support the whole  
23 Bay Area.

24 MR. MILLER: But in our opinion the  
25 center of the problem is that the Metcalf 230 kV

1           buss, what you're doing is you're mistaking an  
2           operator's monitoring point, Newark, for the  
3           monitoring for that being the place where the  
4           problem is. That's not at all the case.

5                       Now, if I were recommending things to  
6           PG&E and the ISO, I would suggest that they start  
7           carefully monitoring the voltage at Metcalf as  
8           well.

9                       MR. ALTON: Are you saying they don't  
10          monitor the voltage at Metcalf right now?

11                      MR. MILLER: Not with the same --

12                      MR. WOOD: That's not what they key off  
13          of. They probably do monitor the voltage at  
14          Metcalf.

15                      MR. MILLER: But not with the same  
16          aggressiveness.

17                      MR. MILLER: But that's not what they  
18          key off of.

19                      MR. ALTON: Towards the end just before  
20          we broke for dinner you mentioned that the load  
21          area was served predominantly by Metcalf. Just  
22          looking at the map you've got there, there's  
23          certainly a lot of lines coming out of Newark.

24                      So I took one of your diagrams here, and  
25          it came to about 2400 megawatts served from

1 Metcalf, 2000 from Newark. Does that sound more  
2 reasonable, rather than saying that Metcalf was --  
3 I mean it's obviously the majority, but I mean  
4 does that tie in with your idea of how the Silicon  
5 Valley is powered?

6 MR. MILLER: As I indicated in our  
7 direct testimony about 75 percent of the  
8 capability to service that area comes in through  
9 the Metcalf substation.

10 Okay, so if you take -- around all those  
11 lines, which is done in one of the appendices  
12 here, and then just add up the capability you'd  
13 see that number is over 25 percent.

14 One of the things you need to be careful  
15 about doing is using the capabilities on those  
16 lines to indicate how much they might serve. In  
17 particular, the 115 kV lines are very confusing.  
18 You see that they serve -- the load in San Jose is  
19 served both from the north and south.

20 MR. ALTON: So the load in San Jose is  
21 served from both Newark and Metcalf?

22 MR. MILLER: Yes. In fact, if you go  
23 through those lines between Metcalf and Newark,  
24 you will find in most of them, of the 115 kV  
25 lines, an intermediate point where the flow is

1 zero, or it's coming from both directions.

2 MR. ALTON: But if I add all the lines  
3 coming out of the busses in the Newark substation,  
4 I'm not talking about the ratings of the lines,  
5 that's your power flows, I get this 2000 versus  
6 2400 number.

7 Does that indicate that Newark's  
8 supply --

9 MR. MILLER: Your 2000 number sounds  
10 wrong.

11 MR. ALTON: Sorry?

12 MR. MILLER: Your 2000 number sounds  
13 wrong to me. At least in the context of what  
14 crosses the Metcalf service boundary.

15 MR. ALTON: Okay, well, I think there's  
16 a chunk, there 382 going off to Ravenswood.

17 HEARING OFFICER FAY: Mr. Alton, excuse  
18 me for interrupting, you indicated ten minutes,  
19 and it's 15 minutes now. And I'm going to have to  
20 take that off your cross of the staff.

21 MR. ALTON: Was that ten minutes for  
22 what? For LSE?

23 HEARING OFFICER FAY: Yes, your cross of  
24 the --

25 MR. ALTON: No way.

1 MS. CORD: I thought I said 45 minutes.

2 HEARING OFFICER FAY: You did for the  
3 staff panel, I believe.

4 Just reminding you of the time limits.

5 MR. AJLOUNY: That's why I wanted it on  
6 the record.

7 MS. CORD: Forty-five minutes.

8 MR. WILLIAMS: She didn't distinguish  
9 between them.

10 (Parties speaking simultaneously.)

11 HEARING OFFICER FAY: Okay.

12 MR. ALTON: Okay, Moss Landing, does it  
13 currently have a remedial action scheme when it's  
14 at full power?

15 MR. MILLER: The existing units?

16 MR. ALTON: Yeah, the existing.

17 MR. MILLER: Not to my knowledge.

18 MR. ALTON: Okay.

19 MR. MILLER: The point there is that --

20 MR. ALTON: No, just hold on. I want to  
21 ask you when you say that by powering up MEC you  
22 can get more power from Moss Landing, is that more  
23 power out of Moss Landing to elsewhere on the  
24 grid, or more power into Metcalf?

25 MR. MILLER: Well, you're aware of the

1 hazards of defining where generation from a  
2 specific plant goes?

3 MR. ALTON: Yeah.

4 MR. MILLER: But in general, you get  
5 more power out of Moss Landing.

6 MR. ALTON: So you can get 100 percent  
7 flow on the transmission lines, the 230 kV lines  
8 with MEC there, but you can't if MEC is not there?

9 MR. MILLER: A better way to say that is  
10 that you keep the loading of the Metcalf 230 lines  
11 within their limits when MEC is there.

12 MR. ALTON: Okay.

13 MR. WOOD: Just for clarification,  
14 you're talking about the Moss Landing expansion,  
15 is that right?

16 MR. ALTON: Yes. Well, that's what you  
17 were talking about.

18 MR. WOOD: When you say Moss Landing  
19 you're talking about --

20 MR. ALTON: Well, the first question --

21 MR. WOOD: -- the --

22 MR. ALTON: -- about the remedial action  
23 scheme was is there one for the existing plant.

24 MR. WOOD: Okay, that's why I asked the  
25 question, I wanted to make sure we --

1                   MR. ALTON: So, okay. So with the  
2 expansion of Moss Landing you say that we had to  
3 reduce by 415 megawatts, and the expansion of Moss  
4 Landing is 1060 megawatts, so we still get 600  
5 megawatts to this area, is that correct?

6                   MR. MILLER: That's correct, but I might  
7 note that in our direct testimony we used  
8 conservative numbers, which meant that we reduced  
9 the generation in the south.

10                   We also, if you look carefully at our  
11 appendix, did an alternative study where we  
12 reduced generation in the north. In that case you  
13 have to curtail Moss Landing even further than the  
14 numbers we included in our direct testimony.

15                   MR. WOOD: And it's not a real good idea  
16 to curtail when you're on peak.

17                   MR. ALTON: Okay. You mentioned that  
18 the Moss Landing to Metcalf lines were not weak,  
19 although I'm looking at a list of lines going out  
20 of Metcalf station. I see that the Metcalf Monte  
21 Vista lines are rated at 2400 amps while the  
22 Metcalf Moss Landing 230 kV lines are 813 amps.

23                   MR. HARRIS: What are you looking at,  
24 Tim, just so we can follow along?

25                   MR. ALTON: I'm looking at the

1 San Jose - it's one of your appendices. It's the  
2 San Jose division area description from the --

3 MR. HARRIS: As long as my witnesses  
4 know what you're talking about.

5 MR. MILLER: Without checking your  
6 numbers they sound accurate. The lines between  
7 Metcalf and Monte Vista are bundled. There are  
8 two conductors per phase.

9 And the lines between Moss Landing and  
10 Metcalf are single conductor lines. If you were  
11 to make an upgrade in capacity you'd have to  
12 rebuild that line, because it's not strong enough,  
13 I don't think, to handle a double conductor.

14 You might want to ask the ISO guys about  
15 that.

16 MR. WOOD: This is a PG&E document, by  
17 the way.

18 MR. ALTON: Yes. Is rebuilding the  
19 lines in an existing right-of-way likely to cost -  
20 -

21 MR. WOOD: I'm sorry, correction, that's  
22 an ISO document.

23 MR. ALTON: It's from the ISO PG&E  
24 transmission study.

25 MR. WOOD: Right.

1                   MR. ALTON: Is it likely to cost \$10  
2 million a mile to rebuild lines where you already  
3 own the right-of-way?

4                   MR. MILLER: No, but I'd say that it  
5 costs enough that Duke didn't want to undertake  
6 it. It was something that was identified in their  
7 DFS, and they decided they didn't want to pay for  
8 it.

9                   MR. ALTON: Does that tie in with  
10 Calpine Corporation's proposed new generation  
11 connection and congestion mitigation policy? That  
12 new generators should compete within the existing  
13 system without being compelled to pay separately  
14 for system upgrades based solely on --

15                   MR. HARRIS: Can I ask what the document  
16 is you're reading from?

17                   MR. ALTON: Yeah, something I found on  
18 the ISO website, from Calpine Corporation in  
19 response to Cal-ISO's congestion mitigation policy  
20 and proposed new generator interconnect.

21                   MR. HARRIS: I'm going to object. This  
22 would be beyond the scope of the direct testimony.

23                   HEARING OFFICER FAY: Can you tie it in,  
24 Mr. Alton?

25                   MR. ALTON: Actually, okay, the tie-in

1 is that, as Mr. Miller just mentioned, in the  
2 direct they do mention, and I've lost the page,  
3 they do mention that Duke made the choice not to  
4 upgrade the lines.

5 And it seemed as if --

6 HEARING OFFICER FAY: All right, I'll  
7 allow it.

8 MR. ALTON: It seemed as if that was --  
9 okay.

10 MR. HARRIS: Wait a minute. Those are  
11 two separate things. I mean we don't dispute the  
12 Duke thing. He's talking about an ISO document on  
13 congestion mitigation, which is not part of their  
14 direct testimony. The Duke stuff is in their  
15 direct testimony. It's a different predicate.

16 MR. ALTON: Okay, can I restate the  
17 question?

18 HEARING OFFICER FAY: Well, why don't  
19 you try --

20 CHAIRMAN KEESE: Ask them about  
21 something they said.

22 MR. ALTON: Ask them about something  
23 they said. Okay.

24 HEARING OFFICER FAY: Yeah, as opposed  
25 to something that was on the ISO webpage.

1                   CHAIRMAN KEESE:  It's a very interesting  
2                   discussion, I'm happy to learn about all the  
3                   different entities, but are we going somewhere?

4                   The purpose of cross-examination is to  
5                   test, is to point out errors that the experts  
6                   made.  If you're eliciting more expert testimony  
7                   for the record, I'm not sure you're getting where  
8                   you want to go.

9                   MR. ALTON:  Okay.  You say that one  
10                  indicator of the high cost of this alternative is  
11                  that Duke has chosen to implement the remedial  
12                  action scheme, RAS, rather than upgrade the 230 kV  
13                  lines.

14                 As an independent entity in a free  
15                 market Duke may be able to afford this choice.  
16                 However, electricity users in the South Bay may  
17                 not wish to suffer the high prices or curtailment  
18                 that might be caused if generation must be reduced  
19                 on peak to solve this transmission problem.  Page  
20                 22.

21                 MR. MILLER:  Um-hum, that sounds like my  
22                 words, yes.

23                 MR. ALTON:  Okay.  So, what the hell's  
24                 the question --

25                 MR. MILLER:  All we're doing is pointing

1 out that a sane party like Duke didn't want to pay  
2 for that upgrade.

3 MR. ALTON: Who's paying for the  
4 Pittsburg swap that you talk about in the studies?

5 MR. MILLER: The contract says Calpine.

6 MR. ALTON: Okay.

7 MR. MILLER: \$20 million.

8 (Off-the-record discussions.)

9 MR. ALTON: You cite the -- we talked  
10 about the PG&E recommendation document earlier,  
11 about PG&E's recommendation for having power --  
12 new generation in the Bay Area. We were talking  
13 about how site specific that was.

14 Are you aware of --

15 MR. WOOD: Where are you referring to?  
16 I'm sorry.

17 MR. ALTON: It was a question that was  
18 asked earlier. It's probably going to be regarded  
19 as a cheap shot, but are you aware that The  
20 Mercury News published a retraction based on a  
21 statement by a Calpine official that PG&E had made  
22 statements regarding the urgent need for --

23 MR. HARRIS: I'm going to object --

24 MR. ALTON: -- a project of this size?

25 MR. HARRIS: -- to this. We're reading

1 The Mercury News now, and not the testimony of  
2 these witnesses.

3 MR. AJLOUNY: -- was aware --

4 HEARING OFFICER FAY: Is this a  
5 question, Mr. Alton.

6 MR. ALTON: I was wondering if he was  
7 aware of the retraction that was published by The  
8 Mercury News.

9 MR. HARRIS: I'm going to object on the  
10 fact that it's outside the scope of the witness'  
11 direct testimony.

12 HEARING OFFICER FAY: That's sustained.

13 MR. ALTON: Question on the testimony  
14 that we heard about the 12 megawatts of backup  
15 generation running. When that was running on 6/14  
16 how many megawatt hours was that compared to the  
17 testing of the backup generation throughout the  
18 year?

19 MR. HANSER: I'm sorry, you'll have  
20 to --

21 MR. ALTON: Okay. Backup generation  
22 tends to get tested.

23 MR. HANSER: Well, there are certain  
24 requirements for some kinds of backup generation  
25 to be tested. Okay?

1                   MR. ALTON: Okay. Do you know how many  
2 megawatt hours per year that is?

3                   MR. HANSER: It's fairly brief.  
4 Depends. Hospitals and certain kinds of emergency  
5 situations are required to test it for very brief  
6 periods of time, 10 or 15 minutes. They don't  
7 have a requirement for a sustained period of time  
8 for being operated.

9                   MR. ALTON: Okay. Does the MEC  
10 eliminate the need for that testing of those  
11 generators?

12                   MR. HANSER: Any periodic testing that  
13 goes on can't be eliminated because there's a  
14 requirement for these hospital situations to have  
15 that.

16                   MR. ALTON: Can the backup generators be  
17 eliminated by MEC?

18                   MR. HANSER: Their operation would  
19 largely be eliminated by MEC in the kind of  
20 situation that arose on June 14th. The backup  
21 generators are there, with the exception of  
22 instances in which there's a problem with the  
23 distribution system and you've lost a line, the  
24 primary use for the backup generation is when you  
25 have such things as happened on June 14th.

1                   MR. ALTON: Okay, thanks. I'm curious  
2                   about your comment that the N-2 contingency would  
3                   have been long since mitigated had it -- if this  
4                   was another part of the country?

5                   MR. MILLER: That's correct. If you  
6                   read MAP criteria I think the footnote is in our  
7                   testimony. It says that the system shall not  
8                   result in a loss of load for any two facility  
9                   contingency.

10                   Thus, loss of both the 500 kV lines to  
11                   Metcalf would have been a violation, and it would  
12                   have already been fixed.

13                   MR. ALTON: So would you consider that  
14                   it should have already been fixed?

15                   MR. MILLER: It would have already been  
16                   fixed under MAP criteria, yeah. The criteria in  
17                   the west is a little bit loose. The underlying  
18                   point is that the two 500 kV lines that serve the  
19                   Metcalf substation provide less reliability than  
20                   might be accepted in Fargo, North Dakota, say.

21                   MR. ALTON: Going back to page 5 of your  
22                   testimony you say according to studies by the  
23                   California Independent System Operator, the Bay  
24                   Area has the largest supply shortage in the state,  
25                   and the south San Jose area is the focal point of

1 the major reliability concerns.

2 Now, trying to find your -- did you mean  
3 south San Jose, itself, or are you talking about  
4 Metcalf substation?

5 MR. MILLER: I'm not sure I understand  
6 your question.

7 MR. ALTON: Well, --

8 MR. MILLER: Do you understand?

9 MR. WOOD: I think what we are referring  
10 to here is the studies that have been done by the  
11 ISO and PG&E. And most of those studies show that  
12 the focal point of the problem for the Bay Area is  
13 near Metcalf, it's the loss of the transformer and  
14 it's voltage, voltage collapse. It's N-1, G-1,  
15 all those things, if you have generation at  
16 Metcalf, you solve those problems.

17 MR. ALTON: So I'll repeat my question.  
18 Are you talking about south San Jose, and it's  
19 load, or are you talking about the Metcalf  
20 substation, supply the whole of the area that  
21 you've outlined in green from here to Pacifica?

22 MR. WOOD: Well, we're talking about the  
23 load that's closest to Metcalf substation, which  
24 you know, I'm sure there's several different  
25 definitions of south San Jose. And we didn't try

1 to, you know, define that to the nth degree.

2 But Metcalf substation is in south San  
3 Jose, and most of the loads that we're talking  
4 about are closest to that substation.

5 MR. ALTON: I had questions on the  
6 losses, but I think they were covered adequately  
7 earlier.

8 You say on page 8 there are no other  
9 power plant generation proposals in the South Bay  
10 area that will provide similar local system  
11 reliability benefits. Even if such plants are  
12 proposed in the future, assuming they are licensed  
13 and built, they cannot provide these benefits in  
14 the same near timeframe as MEC.

15 What do you estimate is the near  
16 timeframe of MEC, given this is the first time the  
17 override is going to be sought?

18 MR. MILLER: If MEC is expeditiously  
19 approved, the target is summer 2003.

20 MR. HARRIS: And I just want to clarify,  
21 he's not providing a legal opinion there. The  
22 question of override.

23 HEARING OFFICER FAY: Or political  
24 opinion?

25 MR. HARRIS: Yeah, or geopolitical, or

1 otherwise.

2 MR. ALTON: On page 9 you say, at the  
3 top -- sorry, not at the top -- second paragraph:  
4 The alternative sites that would most closely  
5 provide the same electrical benefits as MEC are  
6 UTC and Monte Vista. Both of these sites have  
7 been found to be inferior to MEC by the CEC Staff;  
8 high capital costs and environmental problems are  
9 the main deficiencies to these sites.

10 There was a lot of work done on the  
11 Monte Vista one. What's the high capital costs  
12 involved with UTC?

13 MR. MILLER: I would suggest that  
14 question would be better directed towards the  
15 authors of the FSA.

16 I mean among those costs, those high  
17 costs are the high cost of building the  
18 interconnection.

19 MR. ALTON: Okay, would the  
20 interconnection, itself, I think it was four  
21 miles, say four miles, would that degrade or  
22 diminish the effects of MEC significantly from  
23 what you have in this report?

24 MR. MILLER: It would cost significantly  
25 more than MEC's interconnection. It would be more

1 difficult to construct. And would lead to greater  
2 visual impacts.

3 MR. ALTON: The system reliability items  
4 that you highlight in this report, would they be  
5 diminished significantly?

6 MR. MILLER: No. I mean that's what  
7 we're saying, --

8 MR. ALTON: That's what you're saying.

9 MR. MILLER: -- the plant in the Metcalf  
10 service area would have similar impacts to MEC.  
11 In the UTC site, connected radially, at 230 kV and  
12 the same size would have similar impacts as MEC,  
13 electrically. With a double circuit line.

14 MR. ALTON: Okay. Page 16. It's quite  
15 a long citation. Could we -- it's about two-  
16 thirds of the page referring to plants in southern  
17 California and Laughlin, Nevada being run to meet  
18 northern California's needs.

19 Do you see any correlation between a  
20 plant .6 miles from the south San Jose residence  
21 being used to send power to Woodside and Pacifica?

22 MR. WOOD: I'm sorry, would you repeat  
23 that, please?

24 MR. ALTON: Okay. How much of it do you  
25 want me to repeat?

1 MR. WOOD: All of it.

2 MR. ALTON: Okay. You make a citation  
3 of a newspaper report saying how unfair it is for  
4 plants to be running in southern California and  
5 Laughlin, Nevada in order to meet northern  
6 California's needs.

7 Do you see any correlation between a  
8 plant .6 miles from south San Jose neighborhood  
9 being used to supply power to Woodside and  
10 Pacifica?

11 MR. WOOD: I don't think I'm qualified  
12 to answer that. That's an air quality type  
13 question.

14 MR. ALTON: Well, I'm just going with  
15 stuff in your testimony here.

16 MR. WOOD: We cited the article.

17 MR. ALTON: Okay, do you see a  
18 correlation?

19 MR. WOOD: What do you mean a  
20 correlation?

21 MR. ALTON: Well, between --

22 MR. MILLER: Are you suggesting that MEC  
23 should be sited in Pacifica?

24 MR. ALTON: No. I'm suggesting that it  
25 doesn't need to be sited, as you've indicated by

1 your UTC thing, that it doesn't need to be sited  
2 .6 miles from a residential neighborhood even to  
3 support Pacifica. It could be four miles away  
4 from here.

5 HEARING OFFICER FAY: Is that a  
6 question?

7 MR. ALTON: No, he asked me a question,  
8 actually.

9 HEARING OFFICER FAY: Okay, but you need  
10 to ask him questions.

11 We'll take a break here to note that  
12 there's four hours remaining on this topic. That  
13 includes the rest of tonight and tomorrow morning.  
14 And we still have the staff panel to give their  
15 direct testimony and cross-examining.

16 So I'd ask you all to please be as  
17 efficient as you can.

18 CHAIRMAN KEESE: You might think of the  
19 points that you really are trying to make, and  
20 restrict yourself to those points. Although I'm  
21 happy to be educated on the nature of the system,  
22 if that's --

23 MS. CORD: With all due respect, it's a  
24 huge topic. I don't think we're serving the truth  
25 if we limit the important questions we have to

1 ask. I think we're here to seek the truth.

2 CHAIRMAN KEESE: No, no, I'm saying  
3 we're listening to experts give testimony. And  
4 then cross-examination is meant to elicit  
5 something that they said that was loose, in error  
6 or something.

7 MS. CORD: Well, we could never cover  
8 all that.

9 CHAIRMAN KEESE: But if you want to give  
10 the experts more time to testify by just asking  
11 them wide-open questions that are irrelevant,  
12 that's one way of using your time.

13 MS. CORD: Thank you.

14 MR. ALTON: On page 19 you've got a  
15 table showing losses of transmission facilities  
16 serving the Metcalf 230 kV buss. Page 19.

17 MR. WOOD: Can we just wait till Steve  
18 gets back?

19 MR. ALTON: No, come on, Dan, step up.

20 (Laughter.)

21 MR. WOOD: Well, I want to make sure  
22 that we have the right answer for you, Tim.

23 MR. ALTON: Okay, so --

24 MR. HARRIS: Actually I thought we were  
25 taking a break, too, so I think that's what

1 happened with Steve. He's back.

2 MR. ALTON: Okay, page 19, the table  
3 shows that there's an increased flow from Newark,  
4 so there's an increase in losses from Newark to  
5 Metcalf on 230 kV line. Does this mean there's an  
6 increased flow?

7 MR. MILLER: Say again?

8 MR. ALTON: Page 19, the table, the  
9 bottom line before the total, Newark to Metcalf,  
10 230 kV, losses increased from 4.28 to 6.49.

11 MR. MILLER: Yes, on that particular  
12 line, the losses did increase.

13 MR. ALTON: Okay. On page 30, second  
14 paragraph from the end: When discussing  
15 alternatives it is well worth noting that even if  
16 one assumes that the Northeast San Jose  
17 Reinforcement Project, the Moss Landing Power  
18 Plant project, and the MEC are all built, our  
19 voltage collapse study suggests that by 2008  
20 additional generation will be required.

21 So basically you say that -- you're  
22 stating that although this is better than the  
23 alternatives, we still need alternatives or more  
24 generation?

25 MR. MILLER: That's correct.

1                   MR. ALTON:  Would increasing generation  
2                   at MEC, since it does apparently serve the Newark  
3                   area, would increase in generation at MEC be a  
4                   possibility for replacing the alternatives?

5                   MR. MILLER:  A possibility but not a  
6                   likelihood, because the site's constrained.

7                   MR. ALTON:  The site's constrained to  
8                   what?

9                   MR. MILLER:  To what the applicant is  
10                  proposing.

11                  MR. ALTON:  What the applicant is  
12                  currently proposing?  I mean --

13                  MR. MILLER:  What's in the application,  
14                  yeah.

15                  MR. ALTON:  Okay.

16                  HEARING OFFICER FAY:  Mr. Alton, I have  
17                  to limit you to five more minutes.

18                  MR. ALTON:  I'm done.

19                  HEARING OFFICER FAY:  You're done, good.  
20                  All right.  Let's move on then to --

21                  MS. CORD:  Does that mean I get the five  
22                  minutes now?

23                  HEARING OFFICER FAY:  I'm sorry?

24                  MS. CORD:  I get the last five minutes?

25                  HEARING OFFICER FAY:  If you want.

1 MS. CORD: Thank you. And did you  
2 subtract the break time from what you were  
3 charging here?

4 HEARING OFFICER FAY: No.

5 MS. CORD: So I guess I get --

6 HEARING OFFICER FAY: But there is a  
7 total of four hours left, so --

8 MS. CORD: Well, I'm going to be very  
9 brief.

10 HEARING OFFICER FAY: -- the more time  
11 you take, the less time for Issa and --

12 MS. CORD: I'm certainly going to have  
13 every interest to get out of here. I'll be as  
14 brief as I can.

15 Were you saying something? I'm sorry,  
16 Commissioner.

17 PRESIDING MEMBER LAURIE: Thank you.  
18 Mr. Fay indicated that we have a total of four and  
19 a half hours left on this subject. And we're  
20 going to go ahead and keep the questions coming  
21 now so we don't have to take any time, but we're  
22 going to have to allocate. Because we're not  
23 going to have the last person get stuck with not  
24 being allowed to ask any questions.

25 And so we will take a look at that, and

1 then we will seek to fairly allocate. And if you  
2 want to talk among yourselves to determine how  
3 that's going to be accomplished, great.

4 That's all.

5 HEARING OFFICER FAY: Go ahead, Ms.  
6 Cord.

7 MS. CORD: Thank you.

8 CROSS-EXAMINATION

9 BY MS. CORD:

10 Q Is it your testimony that Metcalf Energy  
11 Center has the benefit of reduced line losses?

12 MR. MILLER: Absolutely.

13 MS. CORD: Okay. What about the power  
14 from Moss Landing Power Plant that will be  
15 diverted away from the Metcalf substation? Will  
16 there be line losses associated with where that  
17 power eventually ends up?

18 MR. MILLER: The power flow is an  
19 integrated model of the whole thing, and included  
20 what happens with the Moss Landing Power Project.

21 MS. CORD: Can you tell me specifically  
22 what that line losses associated with power that's  
23 diverted from Moss Landing? Power from Moss  
24 Landing that's diverted from the Metcalf Energy  
25 Substation if the Metcalf Energy Center is

1 introduced?

2 MR. MILLER: The analysis shows that the  
3 net losses go down.

4 MS. CORD: That that loss is what?

5 MR. MILLER: The net losses go down.

6 MS. CORD: Okay, and you can't -- can  
7 you tell me the specific portion that's associated  
8 with --

9 MR. MILLER: It's a physical  
10 impossibility to tell you exactly which power  
11 plant is tied to which electron.

12 MS. CORD: What does the model tell us,  
13 then?

14 MR. MILLER: The model tells us that the  
15 net losses go down.

16 MS. CORD: And what's the portion of the  
17 line losses that are associated with the power  
18 from Moss Landing that would be diverted from the  
19 Metcalf substation?

20 MR. HARRIS: Object, it was asked and  
21 answered.

22 MS. CORD: Could you remind me what the  
23 answer was?

24 MR. HARRIS: Objection. Asked and  
25 answered.

1 MS. CORD: Can you quantify the net  
2 loss?

3 MR. MILLER: It's quantified in our  
4 testimony.

5 MS. CORD: Um-hum, can you direct me to  
6 the place where I can find that?

7 MR. MILLER: Yeah.

8 MR. WOOD: Are you asking for the net  
9 loss on that one particular line? Or in the  
10 system?

11 MS. CORD: The Moss Landing power that  
12 now comes to Metcalf substation, if that's  
13 diverted --

14 MR. WOOD: Now, today?

15 MS. CORD: Yes, --

16 MR. WOOD: Now, today, without the  
17 addition at Moss Landing?

18 MS. CORD: Or with the additional, --

19 MR. WOOD: Okay, either way?

20 MS. CORD: -- because that's going to  
21 happen before 2003 most likely.

22 MR. MILLER: Go to page 18. The table  
23 there summarizes the range of peak loss  
24 reductions, and this table is just a compilation  
25 of the results from the FSA. So, --

1 MS. CORD: Okay, I have it now. That's  
2 good, thank you.

3 The county chart that's behind you, it  
4 shows that some counties have more generation than  
5 other counties.

6 MR. MILLER: Relative to their load,  
7 yes.

8 MS. CORD: Okay. Specifically in  
9 January 2001 do you know if L.A. County had  
10 rolling blackouts?

11 MR. WOOD: January 2001?

12 MS. CORD: Um-hum.

13 MR. WOOD: I don't believe so. I think  
14 it was just confined to northern California, where  
15 the shortage is.

16 MS. CORD: Are we talking about June or  
17 January?

18 MR. WOOD: January.

19 MS. CORD: January --

20 MR. WOOD: -- both if you want to  
21 know --

22 MS. CORD: No, I didn't want to talk  
23 about June.

24 MR. WOOD: Okay.

25 MS. CORD: Okay. Do you know, or are

1 you aware of any policy that counties with power  
2 plants are exempted from rotating outage block  
3 based blackouts?

4 MR. MILLER: What kind of power plants?

5 MS. CORD: Excuse me?

6 MR. MILLER: What kind of power plants?

7 MS. CORD: Are you aware if there's any  
8 regulation that counties with power plants are  
9 exempted from rotating outage block based  
10 blackouts?

11 MR. WOOD: Power plants usually don't --  
12 are not usually shut off during blackouts --

13 MS. CORD: I'm not talking about power  
14 plants. Counties that have power plants --

15 MR. MILLER: The system operator will  
16 black out no more than they absolutely have to.  
17 If blackouts in L.A. helped on June 14th, they  
18 would have prorated those rolling blackouts to  
19 L.A.

20 Rolling blackouts in L.A. wouldn't have  
21 helped on June 14th. The only --

22 MS. CORD: Okay, but that wasn't my  
23 question. My question is do you know if counties  
24 that have power plants are exempted from rotating  
25 outage block based blackouts?

1 MR. WOOD: No, I don't know.

2 MS. CORD: Is that the answer? Thank  
3 you. High tech companies require greater  
4 reliability than other companies, I believe -- I  
5 mean than other power users -- I believe it's 4-  
6 9's or 5-9's, do you know?

7 MR. MILLER: Depends on the situation,  
8 but in general your statement is correct.

9 MS. CORD: Okay. Will building the  
10 Metcalf Energy Center displace generators that are  
11 needed for .9999 reliability?

12 MR. MILLER: It won't displace the  
13 generators, but it will displace their operation,  
14 which reduces the pollutants that are put in the  
15 air.

16 MS. CORD: Will they still be needed,  
17 backup generators, for a .9999 reliability?

18 MR. MILLER: Backup generators will  
19 still exist. They just won't run as often, and  
20 therefore won't pollute.

21 MS. CORD: And are you aware that Dr.  
22 Lim of the Air Quality District testified last  
23 week that he doesn't know how many backup  
24 generators are operating. He doesn't know what  
25 their emissions are. And he doesn't know how many

1 backup generators, if any, could be displaced?

2 MR. HANSER: I find that remarkable  
3 because the Bay Area Air Quality Management  
4 District issued a report in which it was very  
5 concerned about diesel backup generation, and said  
6 that it was, in fact, taking away their exemptions  
7 from emissions controls.

8 Diesel generation is, you know, not a  
9 particularly clean way to generate electricity.  
10 But it is the most common and cheapest way backup  
11 generation is found.

12 So I find that --

13 MS. CORD: So you're surprised?

14 MR. HANSER: -- amazing that he hasn't  
15 even read his own reports.

16 MS. CORD: Thank you.

17 MR. RATLIFF: Excuse me, lest Mr. Lim's  
18 testimony be misconstrued, I think he basically  
19 communicated the District's very strong concern  
20 about backup generators.

21 MR. HANSER: Oh, good.

22 MS. CORD: Oh, yeah, well, that's --

23 MR. RATLIFF: He also testified that  
24 there are at least 2000 backup generators and more  
25 being added. And that their operation is one of

1 the District's greatest issues for air quality.

2 I don't want Mr. Lim's testimony to be  
3 in any way indicated to suggest otherwise.

4 MR. HANSER: I'm sorry, I --

5 MS. CORD: I appreciate it, but that's  
6 not --

7 MR. HANSER: -- I didn't mean to cast  
8 aspersions on his testimony, but --

9 MS. CORD: And that wasn't what I --

10 MR. HANSER: -- her representation  
11 suggested that he didn't, so I appreciate --

12 MS. CORD: That wasn't what I said.

13 MR. HANSER: -- your correcting that.

14 HEARING OFFICER FAY: You're going to  
15 have to speak one at a time, please.

16 MS. CORD: Well, I don't know what he's  
17 clarifying, because that isn't what I said, but.

18 HEARING OFFICER FAY: Ms. Cord, you've  
19 used up your five minutes, and if you go on then  
20 someone else will not be able to cross-examine at  
21 all because we are seriously running out of time.

22 So I'm going to have to move to -- Issa,  
23 you have a choice to make. You've used up much of  
24 your time in your statement, and you've also  
25 reserved a lot of time to cross-examine the staff.

1 And they both can't happen, so I'll leave it up to  
2 you to decide.

3 MR. AJLOUNY: Well, what do you recall  
4 me reserving for the staff?

5 HEARING OFFICER FAY: You reserved an  
6 hour of cross for the staff.

7 MR. AJLOUNY: Okay, and what about the  
8 applicant?

9 HEARING OFFICER FAY: Oh, you pretty  
10 much used the ten minutes, well, you used more  
11 than ten minutes you reserved to cross the  
12 applicant.

13 MR. AJLOUNY: And I think it's a sad day  
14 that I wanted to make a very serious point, and I  
15 think the Commissioners probably acknowledge as a  
16 serious issue, that I had to take up some of that  
17 time to bring it out on the table and talk about  
18 it, because I'm not one of those quiet type of  
19 people.

20 If they penalize me for something  
21 serious being done because of the political  
22 atmosphere, I think it's a sad day.

23 HEARING OFFICER FAY: Okay, we're not  
24 penalizing you, the reality is we have very  
25 limited time.

1 MR. AJLOUNY: Yeah, --

2 HEARING OFFICER FAY: We're trying to be  
3 fair to everybody.

4 MR. AJLOUNY: -- I'm more than willing  
5 to come here at 10:00 in the morning.

6 HEARING OFFICER FAY: And that's  
7 assuming we all do come here at 10:00 in the  
8 morning. I mean this estimate includes coming in  
9 at 10:00 in the morning.

10 MR. AJLOUNY: I don't want to argue.  
11 I'm going to really try to keep it to 10 or 15  
12 minutes. It depends on the political answers or a  
13 yes or no answer.

14 HEARING OFFICER FAY: Okay.

15 MR. AJLOUNY: And I'm going to try to be  
16 real firm and direct and try to come to a point,  
17 Commissioner Keese, because I'm trying to make  
18 some points here. Okay?

19 HEARING OFFICER FAY: Okay.

20 MR. AJLOUNY: So, I'm going to start off  
21 with something that I don't know too much about,  
22 but it just came up.

23 CROSS-EXAMINATION

24 BY MR. AJLOUNY:

25 Q The \$20 million that was talked about,

1 another plant, the cost for some lines. You  
2 recall saying that about ten minutes ago?

3 MR. MILLER: You're referring to Delta  
4 Energy Center?

5 MR. AJLOUNY: Yes. You recall saying  
6 that? Do you know how many miles that line was?

7 MR. MILLER: That wasn't any one line.  
8 That was a series of eight projects if my memory  
9 serves right.

10 MR. AJLOUNY: Okay, all right, I won't  
11 spend much time on that. I thought it was just --  
12 just thought I'd go somewhere with that.

13 Can we turn to page -- never mind, don't  
14 turn anywhere. That's for my notes. Okay.  
15 Hypothetically, I want you to put yourself in a  
16 hypothetical situation for me. And assume this  
17 hypothetical situation of what the Mayor of San  
18 Jose is proposing, let's say four to 12 power  
19 plants in the area of San Jose or in your black  
20 outline that you call the Metcalf natural  
21 boundaries.

22 Okay, so you got that in your minds? I  
23 get that from you guys. You got that?

24 MR. WOOD: No, because I don't know  
25 where these plants are.

1 MR. AJLOUNY: No, okay.

2 MR. WOOD: We need to know exactly where  
3 they are and there needs to be a full-blown  
4 study --

5 MR. AJLOUNY: Well, I wanted to go by  
6 your expert opinion that you could do it on the  
7 top of your head on the basics, and I'm just  
8 talking basics, not detailed numbers.

9 So, I want to continue.

10 MR. WOOD: Okay, go ahead.

11 MR. AJLOUNY: It's four to 12 plants  
12 placed in a variety of places that makes sense.  
13 Let's say if there was a study done and the Mayor  
14 decided to do a hypothetical study with a power  
15 summit with knowledgeable people, and picked four  
16 to 12 power plants around your Metcalf boundary of  
17 that black line in that poster.

18 MR. WOOD: So they could all be  
19 connected right into Metcalf theoretically?

20 MR. AJLOUNY: No. They would all be  
21 connected to some power lines within that  
22 boundary. So let me go with the hypothetical.

23 Okay, but you have that hypothetical in  
24 mind?

25 MR. MILLER: What kind of plants are

1 these?

2 MR. AJLOUNY: You know, I really want to  
3 talk about local system effects and the power  
4 generation. I don't want to go anywhere else  
5 except your expert testimony that we're here  
6 today --

7 MR. HARRIS: I want to object as to that  
8 was a valid question. He wanted to know what kind  
9 of power plants. You've given us a number, but  
10 you haven't told us how big or --

11 MR. AJLOUNY: Okay, if it's my kids  
12 pedaling a bicycle, or it's natural gas, I don't  
13 think it matters, it's power generation, isn't  
14 that true? Isn't that what we're testifying and  
15 talking about here today? Is power generation?

16 (Parties speaking simultaneously.)

17 HEARING OFFICER FAY: Part of the  
18 problem, Issa, is you're building towards a  
19 question and they don't have any specifics to plug  
20 in. Why don't you --

21 MR. AJLOUNY: I'm --

22 HEARING OFFICER FAY: Why don't you --

23 MR. AJLOUNY: -- area of --

24 HEARING OFFICER FAY: -- tell them the  
25 ultimate question and see if they can give you

1 some kind of --

2 MR. AJLOUNY: Natural gas.

3 MR. HANSER: Natural gas what, CTs?

4 MR. AJLOUNY: I thought you meant pick

5 a -- I'm sorry, I misunderstood --

6 MR. HANSER: Combustion turbines,

7 combined cycles?

8 MR. AJLOUNY: Boy, I'm trying to go

9 quick here, guys. I really am going to be talking

10 about reduction in system losses, improved outage,

11 performance increase, real and reactive power,

12 increased reactive margins, those are where I'm

13 going with my questions. But I got to paint the

14 picture first.

15 So what I'm trying to paint is four to

16 12 and I'm picking a number, four to 12 power

17 plants, whether it's four 150 megawatts, or 12 50

18 megawatts. We got them around the City

19 strategically placed. Would probably make sense

20 to you, right? Okay.

21 So, what I want to know, in the

22 reduction of system loss, would it be more

23 beneficial to have the four to 12 versus Metcalf?

24 I'm going to go one by one. Would you think

25 there'd be less reduction in system loss or more?

1 That's a yes or no answer, please.

2 PRESIDING MEMBER LAURIE: Well, it may  
3 not be if there are too many variables. So the  
4 question is can he answer that question.

5 MR. AJLOUNY: Okay, okay, that's fair.  
6 I mean I know I can't from my studies.

7 MR. HARRIS: And I'm going to object on  
8 the basis of it being vague. Just give us more  
9 detail. I mean how many power plants, what size,  
10 I mean pick -- you said four to 12, and 50 to 150,  
11 so --

12 MR. AJLOUNY: Okay, I'm sorry, I was --  
13 okay, let's pick four.

14 HEARING OFFICER FAY: Has there been an  
15 example say thrown around in the community of a  
16 certain size --

17 MR. AJLOUNY: Okay, let's think of a,  
18 okay, I'm sorry.

19 Four power plants, 150 megawatts. One  
20 in northern, you know, strategically placed.  
21 Because I'm not an expert at the lines. I just  
22 understand the closer the power plant the less  
23 loss. Can we agree to that?

24 MR. MILLER: Closer to what?

25 MR. AJLOUNY: Oh, my --

1                   SPEAKER:  The load.

2                   MR. AJLOUNY:  I tell you what, I'm  
3                   just -- I'm really getting frustrated, and maybe  
4                   that's what you're trying to do on purpose, but --

5                   HEARING OFFICER FAY:  Issa, --

6                   MR. AJLOUNY:  -- I'm talking basics  
7                   here.

8                   HEARING OFFICER FAY:  -- no, I think  
9                   they need some information.  If I may, just a  
10                  moment, if around the perimeter of the black line  
11                  you've drawn were placed four power plants 150  
12                  megawatts each, and they were positioned along  
13                  that line, based on the best connection to the  
14                  grid, now -- and your question is?

15                  MR. AJLOUNY:  Thank you.  Would there be  
16                  less reduction in system loss in that scenario  
17                  versus Metcalf?

18                  MR. MILLER:  Let me qualify my answer  
19                  here by making a statement.  One of the problems  
20                  with hypotheticals in this area is that you  
21                  contend to propose a solution that works one way,  
22                  but it's like squeezing a balloon.  You squeeze  
23                  that problem out, and it pops up somewhere else.

24                  Now, having put that limitation on the  
25                  hypothetical, in other words objecting to the

1 hypothetical without knowing more details, the  
2 likelihood of the impact is that number one, one  
3 of your four sites is going to be Metcalf  
4 substation, so that's going to be one of the four  
5 locations for your 150 megawatt plants.

6 Number two, the 150 megawatt plants are  
7 likely to be more polluting than the combined  
8 cycle 600 --

9 MR. AJLOUNY: See, I object. I'm asking  
10 just the -- I'm asking just the electrical, the  
11 grid -- I asked a specific question --

12 HEARING OFFICER FAY: Okay, --

13 MR. AJLOUNY: -- reduction in system  
14 loss. I'm getting a political answer.

15 HEARING OFFICER FAY: -- can you keep it  
16 just to system loss?

17 MR. AJLOUNY: And you want me to keep it  
18 in ten minutes.

19 PRESIDING MEMBER LAURIE: And I would  
20 direct the witness to answer. I understand the  
21 question. If you can't answer it, then say you  
22 can't answer it. But we don't have time to start  
23 fudging the question. Answer the question if you  
24 can.

25 MR. MILLER: Subject to the

1           hypotheticals, if you put roughly 600 megawatts of  
2           generation in the Metcalf service area you will  
3           reduce the losses by a number that approximates  
4           what Metcalf produces it by.

5                       HEARING OFFICER FAY:  Okay, next  
6           question.

7                       MR. AJLOUNY:  So it would be less loss,  
8           did I hear that?

9                       MR. MILLER:  It would be about the same.

10                      MR. AJLOUNY:  Okay, --

11                      MR. HANSER:  And it could be more.  It  
12           could be more.

13                      MR. AJLOUNY:  Okay.  Improved outage  
14           performance.  You got the question?  I mean I'm  
15           just, I'm just going one by one.  So, the same  
16           scenario, would it --

17                      MR. WOOD:  I think you have to do a  
18           study for this.  I'm sorry, I --

19                      MR. AJLOUNY:  Okay, let's -- okay, let  
20           me ask you this.  If you had four generators  
21           versus one, and the one breaks, you're out to zero  
22           power.  If you have four and one breaks, you still  
23           have 75 percent, is that true?

24                      MR. MILLER:  The fact is that there are  
25           three generators at Metcalf, so you're comparing

1 three to four.

2 MR. AJLOUNY: All right.

3 MR. MILLER: So there's not much benefit  
4 there.

5 MR. AJLOUNY: I guess you guys are  
6 getting paid the big bucks for this, huh?

7 Increased real and reactive power.

8 MR. WOOD: Again, I think you would have  
9 to do a study. I mean you'd have to --

10 MR. AJLOUNY: Okay, that's fine. Other  
11 people can do this on the top of their head, but -  
12 - I thought I heard you say you can kind of do  
13 these things on top of your head, just a general,  
14 I'm not asking for --

15 HEARING OFFICER FAY: Okay, now, Issa,  
16 just the questions, okay?

17 MR. AJLOUNY: Well, I'm trying to make  
18 the point that he acted like --

19 HEARING OFFICER FAY: It's not your time  
20 to argue. It's your time to ask questions.

21 MR. AJLOUNY: Increased reaction margin.

22 MR. WOOD: I think you'd have to do a  
23 study.

24 MR. AJLOUNY: Additional operation  
25 flexibility?

1                   MR. WOOD: Again, I think you'd have to  
2 do a study.

3                   MR. AJLOUNY: Reduced reliability, RMR?

4                   MR. WOOD: Same answer.

5                   MR. AJLOUNY: Potential deferral or  
6 relocation of capital facilities?

7                   MR. WOOD: Same answer.

8                   MR. AJLOUNY: Okay. Are you familiar  
9 with the FSA and the alternates 1 and 4 in that  
10 it's half as much loss and you would build in  
11 alternates location 1 through 4, in one of those  
12 locations? Are you familiar with that part of the  
13 testimony?

14                   MR. WOOD: Yes.

15                   MR. AJLOUNY: Okay. Do you agree with  
16 that part of the testimony?

17                   MR. MILLER: Yes.

18                   MR. AJLOUNY: Okay, so if you put a 600  
19 megawatt power plant at let's say alternate one,  
20 there'd be half as much loss in Metcalf?

21                   MR. MILLER: That's right, but again, as  
22 we pointed out --

23                   MR. AJLOUNY: Okay, --

24                   MR. MILLER: -- in the testimony, it's a  
25 Hobson's Choice.

1 MR. AJLOUNY: Okay, but --

2 MR. MILLER: Putting a plant at MEC has  
3 unique loss reduction benefits for the reasons we  
4 described.

5 MR. AJLOUNY: Okay. The bottomline is  
6 it's half as much loss, okay. And so with  
7 alternates two, three and four, also,  
8 approximately half as much loss.

9 MR. MILLER: Those are electrically  
10 similar.

11 MR. AJLOUNY: Okay. But yet you just  
12 testified in those four power plants around the  
13 area you'd have to really calculate it and see if  
14 there's any, you know, --

15 MR. MILLER: No, I didn't. We testified  
16 with respect to losses, that if you put four 600  
17 megawatts of generation within the Metcalf service  
18 area, subject to the hypotheticals, that the  
19 losses reduction would be about the same as MEC.

20 HEARING OFFICER FAY: Five minutes,  
21 Issa.

22 MR. WOOD: I guess, in other words, you  
23 might get the losses down --

24 MR. AJLOUNY: It's okay, you can be  
25 quiet. I didn't ask a question.

1 MR. WOOD: Yes, sir.

2 MR. AJLOUNY: That's right when you're -  
3 - I don't want to give you any more time to  
4 testify like Commissioner Keese --

5 MR. HARRIS: Could we not have  
6 argumentative statements towards my witnesses? If  
7 you have questions, they're glad to answer.

8 MR. AJLOUNY: Okay. Referencing your  
9 large map behind you, and this one I'm holding up,  
10 in the Metcalf, the natural boundary of Metcalf,  
11 if there was a power plant at the Newark station,  
12 would it overlap into the boundary of the natural  
13 boundary of Metcalf?

14 MR. MILLER: A power plant at the Newark  
15 station would provide some benefits, as we  
16 testified --

17 MR. AJLOUNY: Okay, --

18 MR. MILLER: -- in our direct testimony.

19 MR. AJLOUNY: -- okay, my question is  
20 would it overlap in the boundary that you have  
21 outlined in the black?

22 MR. MILLER: Yes, --

23 MR. AJLOUNY: Okay, would --

24 MR. MILLER: -- providing --

25 MR. AJLOUNY: -- you say that it would

1 outline, it could come, it's further south as far  
2 south as south San Jose? The benefits? Like if  
3 you had to draw that same boundary of Newark,  
4 wouldn't it come close to this lower black line on  
5 this diagram?

6 MR. MILLER: It would provide some  
7 benefits. What we tried to focus on in our  
8 testimony --

9 MR. AJLOUNY: Okay, the question was --

10 MR. MILLER: -- were the --

11 MR. AJLOUNY: -- yes or no.

12 MR. HARRIS: Let the witness answer the  
13 question.

14 HEARING OFFICER FAY: You've got to let  
15 him answer the question. Please answer yes or no,  
16 and then explain the answer.

17 Yes, no, and then explain?

18 MR. MILLER: I need the question again,  
19 I've lost it.

20 MR. AJLOUNY: What's that?

21 MR. MILLER: I need the question again,  
22 I've --

23 MR. AJLOUNY: Okay, the question is --

24 MR. MILLER: -- lost it.

25 MR. AJLOUNY: -- if I built a Newark

1 station 600 megawatts, based on your diagram here  
2 of your black line boundary, wouldn't it be true  
3 that if you had to draw a black line boundary for  
4 the Newark substation that it would come close to  
5 this southern part black line that you have for  
6 the Metcalf boundary?

7 In a general sense. I'm not saying --

8 MR. MILLER: I think the answer is no.  
9 Newark would provide some benefits in the area,  
10 but it would not relieve the Moss Landing Power  
11 project to Metcalf thermal problems the same way  
12 that MEC does.

13 MR. AJLOUNY: Okay, can you -- I'm not  
14 going to even go there -- can you turn to page 763  
15 of the FSA, please.

16 MR. HARRIS: What was the page?

17 MR. AJLOUNY: 763 of the FSA.

18 MR. HARRIS: Is that alternatives? What  
19 is that?

20 MR. AJLOUNY: It's a FSA page, 763.

21 MR. HARRIS: What section of the FSA?

22 MR. AJLOUNY: Alternatives.

23 MR. HARRIS: Okay, I'd object to that  
24 being outside the scope of these witnesses'  
25 testimony.

1 MR. AJLOUNY: Well, it is in scope  
2 because the witness --

3 MR. HARRIS: It's not their testimony.  
4 The FSA is not their --

5 MR. AJLOUNY: It is.

6 MR. HARRIS: -- testimony.

7 HEARING OFFICER FAY: No, they're not  
8 offering the FSA.

9 MR. AJLOUNY: I didn't ask my question  
10 yet.

11 HEARING OFFICER FAY: Okay.

12 MR. AJLOUNY: Let me ask my question.  
13 Do you agree with the statement --

14 MR. HARRIS: Let them find it, please,  
15 if we're going to go there. Page number?

16 MR. AJLOUNY: 763.

17 MR. HARRIS: Okay, in alternatives,  
18 correct?

19 HEARING OFFICER FAY: That's what he  
20 said.

21 MS. CORD: -- at this point --

22 MR. AJLOUNY: I know, they're just --

23 HEARING OFFICER FAY: Do the witnesses  
24 have the statement in front of them? Or the page?

25 MR. MILLER: I have page 763, but I

1 don't know where --

2 HEARING OFFICER FAY: Can you tell them  
3 the paragraph?

4 MR. AJLOUNY: Okay, the paragraph's in  
5 the center of the page, it starts with: ISO Staff  
6 has clarified. Are you with me?

7 MR. MILLER: Um-hum.

8 MR. AJLOUNY: Okay, that paragraph right  
9 there, that says: ISO Staff has clarified that if  
10 the transmission project is approved by the ISO in  
11 August of this year, our service by 2001, the most  
12 likely cause of rolling blackouts in the San Jose  
13 area is likely to be a statewide shortage of  
14 generation rather than a transmission-related  
15 deficiency in San Jose area or the larger Bay  
16 Area."

17 Do you agree with that statement?

18 MR. MILLER: I would suggest that that  
19 statement quotes Peter Mackin, whose testimony --

20 MR. AJLOUNY: Oh, --

21 MR. MILLER: -- is up next and --

22 PRESIDING MEMBER LAURIE: Sir, do you  
23 agree with that statement, yes or no?

24 MR. MILLER: No.

25 MR. AJLOUNY: Okay, that's good.

1 HEARING OFFICER FAY: Okay, Issa, that's  
2 it, time's up.

3 MR. AJLOUNY: Oh, my --

4 HEARING OFFICER FAY: Sorry.

5 MR. AJLOUNY: Just for the record I  
6 think I've been mistreated tonight in my cross-  
7 examination because most of the time has been the  
8 applicant spending more time answering my  
9 questions and I have them written down and I was  
10 trying to go one by one. I think I've done my  
11 job. And I feel that they're very good at giving  
12 political answers to take up my ten minutes. I  
13 don't think that's right.

14 HEARING OFFICER FAY: Okay. Mr.  
15 Williams, you've got 15 minutes.

16 MR. WILLIAMS: Thank you, sir. With all  
17 due respect I requested 45 minutes for the  
18 combined TSE and LSE. I did not use any on the  
19 first round.

20 HEARING OFFICER FAY: Oh, I see, my  
21 mistake. You're right.

22 MR. WILLIAMS: And I will try to be  
23 shorter than 45 minutes.

24 HEARING OFFICER FAY: If you can,  
25 because --

1                   MR. WILLIAMS: Because otherwise I'll  
2 take it out of my staff testimony tomorrow.

3                   HEARING OFFICER FAY: Right.

4                   MR. WILLIAMS: I understand that.

5                                   CROSS-EXAMINATION

6 BY MR. WILLIAMS:

7                   Q     First I'd like to ask about the so-  
8 called Metcalf natural boundary. And forgive me,  
9 I've -- could you two gentlemen say your names  
10 again, I've --

11                   MR. WOOD: Dan Wood.

12                   MR. WILLIAMS: Dan Wood, and?

13                   MR. MILLER: Steve Miller.

14                   MR. WILLIAMS: Steve Miller, thank you,  
15 sirs.

16                                   How did you account for the import of  
17 Bonneville power into the Metcalf natural boundary  
18 area?

19                                   The City of San Jose and the City of  
20 Palo Alto have purchase agreements with entities  
21 in the Northwest.

22                   MR. MILLER: Those imports would be  
23 subject to all constraints that we discussed.

24                   MR. WOOD: Those imports are  
25 contractual, and we look more at a physical

1 representation. Contractual, you know, they also  
2 have power in New Mexico, but power --

3 MR. WILLIAMS: So is it your testimony  
4 then that none of the Bonneville power really gets  
5 here? It's just a contractual issue?

6 MR. WOOD: Physically there may be a few  
7 electrons that make their way down here, but  
8 physically electricity is consumed closest to its  
9 load. Contractually is a whole different issue.

10 MR. WILLIAMS: Okay. Now, wouldn't it  
11 be fair, though, to say that -- what is the  
12 approximate load in the so-called Metcalf natural  
13 boundary? Is it around 3000 megawatts or 4500  
14 megawatts? Pick your number. I don't want to be  
15 argumentative on that point.

16 MR. MILLER: 3,272 megawatts in the 2005  
17 summer peak case.

18 MR. WILLIAMS: Okay, thank you. Now,  
19 approximately what is the purchase agreement with  
20 the Bonneville Power, if you know?

21 MR. WOOD: I don't know that.

22 MR. MILLER: I don't know.

23 MR. WILLIAMS: Well, would it be fair --

24 MR. HARRIS: I'm going to object on the  
25 basis this is beyond the prefiled testimony. The

1 witnesses did answer and said they didn't know.

2 MR. WILLIAMS: I realize that, so I'm  
3 just trying to establish then for the record  
4 that --

5 HEARING OFFICER FAY: Mr. Williams,  
6 let's just get to the questions.

7 MR. WILLIAMS: Well, okay. We've heard  
8 testimony, sir, that by hooking up to the Monte  
9 Vista line the Metcalf plant permits the Moss  
10 Landing power to come into the Bay Area, is that a  
11 fair summary of your statements? In other words  
12 it unloads the Metcalf substation --

13 MR. MILLER: Conceptually.

14 MR. WILLIAMS: Yeah. Now what I'm  
15 trying to pursue is would some sort of  
16 transmission engineering permit Bonneville power  
17 to come into this area and displace the need for  
18 the locally generated power?

19 It seems to me that that's a fair  
20 question because they're getting a very low price.

21 MR. MILLER: You can get power from  
22 anywhere as long as you build the transmission  
23 facilities to do it. And that's the point of our  
24 testimony on indicated transmission facilities.

25 But that has a cost, and MEC defers the

1 need to expend that sort of cost.

2 MR. WILLIAMS: Yes. Now, could you make  
3 an approximate estimate of the load within the  
4 geographic boundaries of the City of San Jose?

5 MR. WOOD: I think it's on the order of  
6 about 150 megawatts -- oh, the City of San Jose?

7 MR. WILLIAMS: Yeah.

8 MR. WOOD: I'm sorry, I'm sorry --

9 MR. MILLER: We haven't looked at the  
10 City of San Jose explicitly. We looked at the  
11 region.

12 MR. WILLIAMS: Well, let me direct your  
13 attention to the PG&E RMR study, and let me ask  
14 you to refresh your memory on the load in the San  
15 Jose area that's in the PG&E, it's appendix 5 of a  
16 tab toward the end of the thick book.

17 MR. HARRIS: Bob, are you in our  
18 testimony or are you in another document?

19 MR. WILLIAMS: I believe I'm in your  
20 testimony.

21 MR. HARRIS: Okay, what's the reference,  
22 appendix 5?

23 MR. WILLIAMS: The Greater Bay Area, and  
24 it's appendix X, excuse me.

25 MR. WOOD: It's appendix X?

1                   MR. WILLIAMS: Forgive me, I -- the  
2 first white page says appendix 5. It's appendix 5  
3 apparently of the RMR study.

4                   This study was done using separating San  
5 Jose from the upper Peninsula, the Palo Alto  
6 region. Why didn't you use this as the local  
7 systems effects area since PG&E had used this in  
8 their --

9                   MR. MILLER: What are you referring to  
10 when you say "this"?

11                  MR. WILLIAMS: I'm referring in  
12 particular to page 5-2 dated August 19th, which is  
13 in appendix 5, version 2, Greater Bay Area, year  
14 2000.

15                  MR. WOOD: Okay, what's the question?

16                  MR. WILLIAMS: Well, they have a San  
17 Jose area that does not include the Peninsula.  
18 And the question is why didn't you adopt that  
19 convention, why did you go so far north?

20                  MR. MILLER: I think the drawing that  
21 you're referring to is a conceptual drawing. And,  
22 again, -- I think the drawing you're referring to  
23 is a conceptual drawing.

24                  MR. WOOD: And I don't think any  
25 specific problems were studied in that San Jose

1 area. It was a sub-area that was identified in  
2 the RMR studies, but I don't think there were any  
3 particular problems that were identified.

4 MR. WILLIAMS: So are you familiar with  
5 that study, or --

6 MR. WOOD: Yes.

7 MR. MILLER: Absolutely. That was part  
8 of the inspiration for analyzing the zones that we  
9 analyzed.

10 MR. WILLIAMS: Okay, thank you. Let me  
11 direct your attention to page 19 of the testimony.  
12 In particular TSE-2, losses on transmission  
13 facilities; it's a table we've talked about a lot.

14 Now, just looking at that table, would  
15 you say a fair rule of thumb is that transmission  
16 line losses between Moss Landing and San Jose  
17 would be between 1.8 and 2.5 percent?

18 MR. WOOD: Sorry, I'm not following the  
19 question.

20 MR. WILLIAMS: I want to ask you what  
21 fraction of the net output of the Moss Landing  
22 plant would be lost in transmission line losses.

23 MR. MILLER: I haven't done that  
24 calculation, but the 1.8 and 2 percent is in the  
25 standard range for transmission losses.

1                   MR. WILLIAMS: That's what I was trying  
2                   to do, is be nonargumentative. I think the  
3                   numbers in this table show numbers substantially  
4                   lower than that because isn't this per megawatt,  
5                   don't you have to divide by 1000 and then multiply  
6                   by 100 to get a percent?

7                   MR. MILLER: No, the table's correctly  
8                   labeled. Those are megawatt losses on the lines.

9                   MR. WILLIAMS: Well, you would then  
10                  divide by 600 the output of the Metcalf plant in  
11                  order to get a percentage?

12                  Yeah, but to compared to an input of  
13                  generation of 600? But it changes to 3 megawatts.

14                  In your experience as a plant engineer,  
15                  would the Moss Landing plant be more efficient  
16                  because of the lower sea water and ambient air  
17                  temperatures?

18                  MR. WOOD: I'm not a plant engineer.  
19                  I'm not sure I understand the question.

20                  MR. WILLIAMS: Well, the -- let me say  
21                  just hypothetically then if the plant at Moss  
22                  Landing were 1.5 to 2 percent more efficient than  
23                  the Metcalf plant, wouldn't it be fair to say that  
24                  the greater plant efficiency has paid for the line  
25                  losses?

1                   MR. MILLER: I'm not expert on the  
2                   mechanical efficiencies of power plants.

3                   MR. WILLIAMS: Okay, well, I would ask  
4                   the Siting Committee to take judicial notice of  
5                   the Moss Landing application and the sections that  
6                   describes plant efficiency. I believe that we  
7                   will find that it's substantially more efficient  
8                   than the Metcalf plant.

9                   HEARING OFFICER FAY: That request is  
10                  granted. We'll --

11                  MR. WILLIAMS: Thank you, sir.

12                  HEARING OFFICER FAY: -- take  
13                  administrative notice of the Moss Landing AFC, the  
14                  application for certification.

15                  MR. WILLIAMS: That's for the latest  
16                  documentation. I believe they're at FSA at this  
17                  point, but --

18                  HEARING OFFICER FAY: Well, there's a  
19                  decision.

20                  MR. HARRIS: They've been approved.

21                  HEARING OFFICER FAY: There's a decision  
22                  and I think the decision probably cites the  
23                  efficiency ratings.

24                  MR. WILLIAMS: Yes, I believe it does.

25                  MR. HARRIS: I'm sorry, the entire

1 decision, or just the section related --

2 MR. WILLIAMS: Just the section that has  
3 to do with efficiency.

4 HEARING OFFICER FAY: Efficiency, power  
5 plant efficiency.

6 MR. WILLIAMS: Just to address the point  
7 that the Moss Landing Plant is more efficient.

8 HEARING OFFICER FAY: I'll remind Mr.  
9 Harris that we can take notice of any decision we  
10 render, and all of them.

11 MR. HARRIS: I just wanted to be clear  
12 on the scope --

13 HEARING OFFICER FAY: All right.

14 MR. HARRIS: -- it's a fine decision, by  
15 the way.

16 HEARING OFFICER FAY: All right, go  
17 ahead, Mr. Williams.

18 MR. WILLIAMS: Thank you. Okay, my next  
19 question again Issa pursued a hypothetical  
20 project, but both the Commissioners on the Siting  
21 Committee took official CEC action last Wednesday  
22 on the U.S. Dataport facility, and so I don't  
23 recall precisely the nature of that decision, but  
24 it revolved around the possibility of a 250  
25 megawatt combined cycle --

1                   MR. HARRIS: Is there a question for the  
2 witnesses?

3                   HEARING OFFICER FAY: Yeah, --

4                   MR. WILLIAMS: -- I'm saying the  
5 background. So my question is this is not at all  
6 hypothetical. Would a 250 megawatt plant near the  
7 Los Isteros substation change the results of your  
8 analysis substantially?

9                   MR. MILLER: No.

10                  MR. WILLIAMS: The key word is  
11 substantially?

12                  MR. MILLER: An important word is  
13 substantially, yes.

14                  MR. WILLIAMS: Well, what would be the  
15 significance in general terms of a 250 megawatt  
16 plant at the Los Isteros substation?

17                  MR. MILLER: Well, we've already  
18 testified that plants in the Newark area at Los  
19 Isteros have benefits.

20                  MR. WILLIAMS: Well, this, for clarity,  
21 is a plant near Zanker Road and I think that's Los  
22 Isteros, it's not in Newark at all; it's in the  
23 heart of San Jose in your Metcalf --

24                  MR. MILLER: Let me see if I can answer  
25 your question --

1 MR. WILLIAMS: Thank you.

2 MR. MILLER: -- in an alternative way.  
3 That is Calpine is vigorously pursuing a license  
4 for MEC. And at the same time is also interested  
5 in pursuing a license at the site you mentioned.

6 They think that there are benefits to  
7 both sites or they wouldn't be pursuing the  
8 licenses.

9 MR. WILLIAMS: Let me say that it was  
10 represented at the CEC meeting that that plant  
11 would generate its first power as early as  
12 November of 2001 by separate operation of the gas  
13 turbine.

14 MR. WOOD: That would be great for the  
15 Bay Area, but you still need --

16 MR. WILLIAMS: I think it --

17 MR. WOOD: -- Metcalf Energy Center.

18 MR. WILLIAMS: I think it would, too.  
19 And I think --

20 MR. HARRIS: I think we're assuming some  
21 facts here. I want to know what plant you're  
22 talking about being in operation?

23 MR. WILLIAMS: I'm calling it the U.S.  
24 Dataport plant.

25 MR. HARRIS: Are you calling it a 250

1 megawatt project?

2 MR. WILLIAMS: I asked Commissioner  
3 Laurie and Commissioner Keese to identify, they  
4 both took official action on that.

5 HEARING OFFICER FAY: Well, I think, as  
6 I recall, the action was to direct general counsel  
7 to enter an agreement. The Commission did not  
8 license that facility.

9 MR. WILLIAMS: No, they agreed to waive  
10 their right to license the facility and to put the  
11 plant on a fast track, if I remember the essence  
12 of the --

13 CHAIRMAN KEESE: But I would just  
14 clarify. If it's going to be a 250 megawatt  
15 plant, it will be licensed by the Energy  
16 Commission.

17 MR. WILLIAMS: Now, is there a special  
18 significance to the 2001 operating date under the  
19 Governor's emergency regulation?

20 CHAIRMAN KEESE: There is an ability to  
21 apply for a 120-day siting process for plants that  
22 have low environmental impact, to be short. Have  
23 all the infrastructure present --

24 MR. WILLIAMS: Now what was the  
25 cutoff --

1                   CHAIRMAN KEESE: But the actuality was  
2                   that what was before the Commission was a plant to  
3                   be under 50 megawatts. And the Commission action  
4                   was to say that if it stays under 50 megawatts,  
5                   it's not subject to our jurisdiction.

6                   But the applicant indicated they were  
7                   going to try to make it a larger plant, which  
8                   would make it jurisdictional. That's where --  
9                   this is totally speculative at this point.

10                  MR. WILLIAMS: Well, what was the  
11                  guidance to Mr. Chamberlain, if you don't mind?  
12                  Is there a time clock running, because there was  
13                  clear indication that they planned to proceed in  
14                  good faith to develop the 250 megawatt plant.

15                  CHAIRMAN KEESE: They have not filed  
16                  yet.

17                  MR. HARRIS: Can I just state, too, for  
18                  the record that there's one of the dangers of  
19                  getting off our direct testimony, because you're  
20                  talking about a 50 megawatt plant, not 250. And  
21                  the applicant on that project is not Calpine.  
22                  It's U.S. Dataport. And all that information,  
23                  none of that information is in our prefiled  
24                  testimony. I think that's part of the source of  
25                  the confusion here.

1 HEARING OFFICER FAY: Sure, and --

2 MR. WILLIAMS: Well, I prefer --

3 HEARING OFFICER FAY: -- Mr. Williams,

4 I --

5 MR. WILLIAMS: -- let me just come to

6 the one further point to bring this to closure.

7 Within two or three months we should

8 know on what basis this is going. This is within

9 the time of the Presiding Member's preliminary or

10 final decision. And in the event that plant is

11 proceeding by that point in time, I suggest that

12 it renders a lot of the transmission system

13 testimony moot --

14 HEARING OFFICER FAY: Is this a

15 question?

16 MR. WILLIAMS: So, my question --

17 CHAIRMAN KEESE: It sounds like very

18 good argument when you get around to arguing.

19 MR. WILLIAMS: It does, indeed, but my

20 question then, I don't think these gentlemen have

21 any background on the U.S. Dataport plant, so this

22 is not totally a hypothetical.

23 MR. HARRIS: I need to object again,

24 because we're mixing facts here, you know, real

25 life and hypotheticals --

1                   CHAIRMAN KEESE: U.S. Dataport is not  
2 before us and at this time it's not before the  
3 Commission at all --

4                   (Parties speaking simultaneously.)

5                   MR. WILLIAMS: -- precisely the location  
6 of --

7                   MR. HARRIS: It's not 250 --

8                   MR. WILLIAMS: -- one and two.

9                   MR. HARRIS: It's not 250 megawatts, and  
10 that's the --

11                   CHAIRMAN KEESE: Nothing is before the  
12 Commission at this time.

13                   HEARING OFFICER FAY: And it's a  
14 hypothetical without limits, I'm afraid. We won't  
15 allow that question.

16                   Mr. Williams, your time is up, and now  
17 I'm going to ask Mr. --

18                   MR. WILLIAMS: Excuse me, sir, I began  
19 at 8:25.

20                   HEARING OFFICER FAY: I know, and  
21 there's only 15 minutes that I can give you. If  
22 Mr. Garbett will concede his time to you, then you  
23 can go on. But we have to conclude by 9:00 --

24                   MR. WILLIAMS: I thought I'd agreed at  
25 the start of my testimony that I had requested 45

1 minutes, and I would take it out of the 45 minutes  
2 I'd requested for staff tomorrow --

3 HEARING OFFICER FAY: Oh, I see, all  
4 right.

5 MR. WILLIAMS: -- if I ran --

6 HEARING OFFICER FAY: Okay. That works.

7 MR. WILLIAMS: So I'm now working on 15  
8 minutes out of the 45 minutes for staff.

9 Let me get back on an easier track.

10 Question for Mr. Wood or Mr. Miller, I appreciated  
11 the rhetoric in your opening remarks on the growth  
12 of the soaring electrical demand.

13 Which particular table are you referring  
14 to in citing the soaring electrical demand, and  
15 what is the percentage growth per year?

16 MR. WOOD: Want to take it?

17 MR. WILLIAMS: Excuse me, but I'd like  
18 Mr. Wood to take it --

19 (Parties speaking simultaneously.)

20 MR. HANSER: The Energy Commission's got  
21 a 2.1 percent growth rate in its forecast in like  
22 December, October of 2000.

23 MR. WILLIAMS: So I wanted to clarify  
24 that your soaring demand was just the precise 2.1  
25 percent that we've been using for all of the

1 studies in this project?

2 MR. WOOD: Well, I think the PG&E study,  
3 the annual study, also talked about the  
4 possibility of soaring demand in Santa Clara and  
5 the San Jose area.

6 MR. WILLIAMS: But there's no numerical  
7 evidence, that's what I'm asking you for the table  
8 that demonstrates the soaring demand greater than  
9 2.1 percent. If you could find that in the next  
10 few minutes or even by tomorrow morning, --

11 MR. WOOD: I didn't say it was greater  
12 than 2.1 percent.

13 MR. MILLER: We used, in our analysis,  
14 the forecast used in the CEC-ISO analysis. In  
15 that analysis I believe that in response to  
16 questions by intervenors, there was a table filed  
17 showing the development of that forecast. And all  
18 of the actual loads.

19 Do you remember the reference? It's not  
20 in our testimony.

21 MR. WILLIAMS: Okay, well, your speech  
22 was excellent, but the -- specifically what is the  
23 lack of new generation in the Bay Area that you  
24 refer to? What is your understanding of the  
25 amount of approved generation in the Bay Area?

1                   MR. WOOD:  -- the chart, and a lot of  
2                   that is 38 years old, and older.  You know, we  
3                   calculated that 3700 megawatts in the Bay Area has  
4                   an average age of 38 years.

5                   MR. WILLIAMS:  All right, you've waived  
6                   the appendix A flag at me one more time, so I  
7                   can't resist asking you a question about your bar  
8                   chart there.

9                   I drug out --

10                  MR. HANSER:  Well, there is -- according  
11                  to the CEC alternative --

12                  HEARING OFFICER FAY:  Mr. Hanser, again,  
13                  we can't hear you because you don't speak into the  
14                  microphone.

15                  MR. WILLIAMS:  I'm not talking to Mr.  
16                  Hanser, so I don't need --

17                  MR. HANSER:  Wait, wait, the --

18                  MR. WILLIAMS:  -- his response.

19                  MR. HANSER:  -- question was posed to  
20                  the panel.  There is a CEC report that has been  
21                  used by everybody, which is the scenario  
22                  development for alternative power sources.

23                  You can pull it off their website; and  
24                  it has a rapid development and it has a slow  
25                  development scenario.  And it identifies

1 approximately 9300 megawatts of new generation  
2 over the next ten years. And it's a public  
3 document --

4 MR. WILLIAMS: Yeah, I'm well aware of  
5 that.

6 MR. HANSER: -- utilized it.

7 MR. WILLIAMS: I have it in my library.  
8 Next question relates to which group to put the  
9 San Onofre into.

10 I have this system planning map that I  
11 carry in my automobile, but I use it --

12 (Laughter.)

13 MR. WILLIAMS: -- mostly for driving to  
14 San Diego. And I would just note that San Onofre  
15 shows on this map, and it's roughly 43 miles to  
16 the heart of the San Diego area, not the City of  
17 San Diego proper. And it's roughly 43 miles or  
18 less to Costa Mesa and Anaheim and Long Beach.

19 So, I believe that it's arbitrary to  
20 include the San Onofre units in the San Diego bar  
21 chart.

22 MR. MILLER: The chart has a footnote  
23 noting that we did do that.

24 MR. WILLIAMS: That you did do that,  
25 or --

1 MR. MILLER: Yeah.

2 MR. WILLIAMS: Yeah, that's what I'm  
3 objecting to.

4 MR. MILLER: The footnote says that it  
5 includes the San Onofre units, which are  
6 technically in San Diego County.

7 MR. WILLIAMS: Okay. Now, this seems to  
8 me just to be indicative of the arbitrary nature  
9 of your assignment of generation. You haven't  
10 done any electrical study to show that San Onofre  
11 supports --

12 PRESIDING MEMBER LAURIE: That's an  
13 argument, Mr. Williams.

14 MR. WILLIAMS: Forgive me, in the  
15 interests of being brief I'm trying to indicate  
16 where I'm leading.

17 HEARING OFFICER FAY: Well, but you can  
18 only be brief with questions.

19 MR. WILLIAMS: Yes, sir. So wouldn't  
20 you agree that San Onofre would share its load  
21 between the L.A. area and the San Diego area and  
22 wouldn't it be more appropriate to split the  
23 output of San Onofre between the Los Angeles  
24 region and the San Diego region?

25 MR. MILLER: It's argumentative, that's

1 why we asterisked it on the chart. It's clear in  
2 the footnote on the chart.

3 MR. WOOD: And it certainly doesn't help  
4 the San Jose area.

5 MR. WILLIAMS: No, I'm not arguing about  
6 the San Jose area, I'm --

7 MR. MILLER: And subtract the San Onofre  
8 generation from the San Diego area, you still see  
9 that the percentage far exceeds that in Santa  
10 Clara County.

11 MR. WILLIAMS: Okay, I have one more set  
12 of questions that relate to what happens to the  
13 Bay Area grid when the Metcalf Energy Center is  
14 shut down.

15 Now, your tables seem to indicate that  
16 it would be expected to be out of service sometime  
17 between 8 or 10 percent of the time, is that a  
18 fair summary?

19 MR. MILLER: The availability of the  
20 unit is predicted to be 90 or 92 percent.

21 MR. WILLIAMS: And therefore the lack of  
22 generation is 8.1 percent showed in one of the  
23 tables, is that correct?

24 MR. WOOD: A lot of that is scheduled  
25 outage.

1                   MR. WILLIAMS: I do understand that.  
2                   Now, what happens, isn't it necessary to improve  
3                   the transmission system for the periods when the  
4                   Metcalf Energy Center is out of service?

5                   MR. MILLER: The reliability criteria  
6                   still apply and that's what we took into account  
7                   when we made our studies.

8                   MR. WILLIAMS: And you indicated that  
9                   the MAP study would, in fact, already require the  
10                  additional transmission line if you didn't have  
11                  the Metcalf station, is that correct?

12                  MR. MILLER: There was no MAP study.  
13                  MAP is the --

14                  MR. WILLIAMS: I understand. The MAP  
15                  criteria is what I'm trying to say. And your  
16                  statements earlier today indicated an additional  
17                  transmission line would be required to meet the  
18                  MAP reliability criteria, is that correct?

19                  MR. MILLER: Yes.

20                  MR. WILLIAMS: So I repeat, in order to  
21                  provide adequate reliability during the periods  
22                  when Metcalf is out of service, isn't it going to  
23                  be necessary to make many of these transmission  
24                  upgrades anyway?

25                  MR. WOOD: No, because it will be a

1 scheduled outage, you know, looking at reliability  
2 criteria --

3 MR. WILLIAMS: You don't admit that  
4 there can be a --

5 MR. WOOD: -- and operation --

6 MR. WILLIAMS: -- forced outage during  
7 the --

8 HEARING OFFICER FAY: One at a time.

9 MR. WILLIAMS: Forgive me.

10 MR. WOOD: Operational criteria is set  
11 by the ISO. WSCC criteria takes all of those  
12 outages into consideration.

13 MR. MILLER: When we did our studies one  
14 of the G-1 contingencies that we ran when we added  
15 Metcalf in was loss of the Metcalf facility.

16 MR. WOOD: So the WSCC criteria is still  
17 met, not MAP criteria, but WSCC.

18 MR. WILLIAMS: Okay, which is a less  
19 stringent criteria?

20 MR. WOOD: Yeah.

21 MR. WILLIAMS: Well, I won't belabor  
22 those points any further. By my watch I've taken  
23 35 minutes, is that --

24 HEARING OFFICER FAY: Okay. All right.  
25 We're going to take a five-minute break and then

1 we'll go to Mr. Garbett's questions.

2 (Brief recess.)

3 HEARING OFFICER FAY: We're back on the  
4 record. Mr. Garbett.

5 MR. GARBETT: Yes, William Garbett on  
6 behalf of the public.

7 CROSS-EXAMINATION

8 BY MR. GARBETT:

9 Q First question I have for the panel is  
10 you have transmission towers that connect into  
11 some towers on the top of Tulare Hill, I'm going  
12 to refer to it as the Hetch Hetchy transmission  
13 line, is that true?

14 MR. MILLER: No, it's not Hetch Hetchy,  
15 it's PG&E transmission line. Hetch Hetchy runs  
16 into Newark up north.

17 MR. GARBETT: Okay. But is this on the  
18 intertie that is also tied into the Hetch Hetchy  
19 power grid at any point in time, through any  
20 substations or other connections?

21 MR. MILLER: Hetch Hetchy ties into  
22 Newark.

23 MR. WOOD: I think it has since 1902 or  
24 something like that. It's always gone to Newark  
25 115 kV line.

1 MR. GARBETT: Okay.

2 HEARING OFFICER FAY: I'm sorry, you're  
3 going to have to repeat that.

4 MR. WOOD: I said the Hetch Hetchy line  
5 has always gone into Newark.

6 MR. GARBETT: Okay. And with that line  
7 isn't it true that in the Northeast San Jose  
8 Reinforcement Project that it was proposed to go  
9 and tie that into the other line with about three-  
10 quarters of a mile of high tension line across  
11 public streets right-of-way that would avoid the  
12 need for the Los Isteros substation? Was that one  
13 of the alternatives considered by the Public  
14 Utilities Commission in their EIR?

15 MR. MILLER: Not to the best of my  
16 knowledge.

17 MR. GARBETT: Okay. Are you aware of  
18 the Hetch Hetchy line, what you call the Newark  
19 line, the largest customers that effect the load  
20 off of that? Where you actually have to call  
21 ahead for delivery of power and to call ahead to  
22 go ahead and drop your load, to shed your load?

23 MR. MILLER: The best of my knowledge  
24 Hetch Hetchy is operated as an integrated line as  
25 a part of the California grid.

1                   MR. GARBETT:  Would it surprise you that  
2                   two major customers was the NASA Ames Research  
3                   Facility at Moffet Field, their large wind tunnel,  
4                   and GE Nuclear in San Jose as being those large  
5                   customers where they actually had to call ahead  
6                   for power on the ISO grid which goes to the Hetch  
7                   Hetchy?

8                   MR. WOOD:  Yeah, I would be surprised.

9                   MR. GARBETT:  Okay.  Would it surprise  
10                  you that who their largest single customer is if I  
11                  would tell you that it is the sewage plant  
12                  operated by the City of San Jose, as the largest  
13                  load customer in the City of San Jose?

14                  MR. WOOD:  Sorry, say that again?

15                  MR. GARBETT:  The San Jose sewage plant,  
16                  that's commonly known, it's a combined facility  
17                  from a few other cities, that is the largest  
18                  electrical consumer, single consumer in the City  
19                  of San Jose?

20                  MR. MILLER:  It's not unusual for sewage  
21                  treatment plants to be large electrical loads.

22                  MR. GARBETT:  Would that go and indicate  
23                  that the load near the Los Isteros substation  
24                  would be actually more towards the geographic  
25                  center for the load of the City of San Jose,

1       rather than the Metcalf Energy Center?

2                   MR. MILLER:  We didn't study or attempt  
3       to identify a load center.

4                   MR. GARBETT:  Okay.  Under the  
5       jurisdiction of the Energy Commission they also  
6       have alternative powers where they give subsidies  
7       for what you might call natural generation, wind  
8       power, photovoltaic and other methods.

9                   A hypothetical question:  If all the  
10       neighbors that have appeared at these hearings, or  
11       even just a small portion of them, would suddenly  
12       decide to go and adopt this power, and use net  
13       metering into the grid, would that reduce the  
14       transmission losses in the what you call the  
15       Metcalf load area, to basically zero for all  
16       practical purposes?  It would be more efficient to  
17       the Metcalf Energy Center?

18                   MR. MILLER:  No.

19                   MR. GARBETT:  Could you tell me why not?

20                   MR. MILLER:  First, your hypothetical is  
21       far fetched.  Then in terms of efficiency you'd  
22       have to do a detailed study, but I don't think  
23       that it would be more efficient, no.  Might be a  
24       good thing in the long run, but not in the short  
25       run.

1                   MR. GARBETT: Okay. You have spoken  
2 earlier there that Metcalf would be an active  
3 energy center, thereby producing power. And that  
4 it was a reactive center for producing power. And  
5 you also said that it would provide dynamic  
6 voltage support.

7                   In what means would it provide this  
8 dynamic voltage support?

9                   MR. MILLER: The generators at MEC are  
10 synchronous machines controlled by a device called  
11 an exciter, which regulates their output moment by  
12 moment.

13                   MR. GARBETT: Okay. Isn't one of the  
14 problems in the Bay Area not so much as the lack  
15 of voltage, but actually the power factor because  
16 large amounts of electromotors, for instance,  
17 cause a lag in the power?

18                   MR. WOOD: I would argue that the major  
19 consumer of reactive power on the power grid is  
20 the transmission lines when they're heavily  
21 loaded. Not the load. The load that we model is  
22 represented at the 230 or the 115 kV buss,  
23 wherever the load is represented.

24                   And that's not near the reactive  
25 deficiency that's created in the Bay Area that the

1 transmission lines create when they're heavily  
2 loaded and when the peak and stress conditions are  
3 at their highest.

4 MR. GARBETT: One of the proposed things  
5 that you've done for correcting this power backup  
6 consideration is the adding of passive components  
7 such as capacitors at substations.

8 MR. MILLER: Yes, we analyzed one of the  
9 transmission improvements, it was included in the  
10 model that we used, were the new capacitors at  
11 Metcalf substation.

12 MR. GARBETT: Well, since you've spoken  
13 of dynamic voltage support, could you also, for  
14 instance, take the 60 cycle sine rate -- sine wave  
15 that is being produced by these power plants, and  
16 actually take whatever is on the grid, rather than  
17 being exact synchronism, and leading in phase by a  
18 small amount to go and make up for any reactive  
19 deficiencies in power factor elsewhere, to balance  
20 the load for the grid and thereby achieve a  
21 greater, what you might call efficiency in support  
22 of the greater Bay Area?

23 MR. MILLER: The principal problem in  
24 the Metcalf service area is a deficiency in active  
25 power. The types of devices I believe you're

1 referring to do not produce active power, and  
2 therefore do not solve the main problem.

3 MR. GARBETT: Okay. Are you aware that  
4 there are industries that are engaged in, you  
5 might say, leading the phase for dynamic  
6 correction of power phase difficulties?

7 MR. MILLER: Yeah, I have some  
8 familiarity with companies that sell voltage  
9 support products.

10 MR. GARBETT: Okay. Is that a feasible  
11 usage for the Metcalf Energy Center to employ some  
12 of those technologies so as to greater allow  
13 capacity for the beneficial grid that you're  
14 attempting to support?

15 MR. MILLER: It would not replace the  
16 active power provided by MEC.

17 MR. GARBETT: But would this not give a  
18 greater effective efficiency for the power that  
19 would be generated by MEC?

20 MR. WOOD: The active power that he's  
21 talking about relates to the reactive power  
22 consumption that I was talking about earlier. If  
23 you unload those transmission lines you unload the  
24 reactive power. And that's where you get your  
25 voltage, voltage dip and eventually collapse.

1                   MR. MILLER: Any power factor management  
2 you can do is beneficial, but it's a second or  
3 third order effect compared to what we're talking  
4 about here.

5                   MR. GARBETT: Isn't it true that if the  
6 load center or the largest customer is in north  
7 San Jose, the power plant that Calpine had  
8 suggested in north San Jose, along Los Isteros  
9 Road near the substation would be a benefit, but  
10 the Dataport facility might also, that has been  
11 rumored, on the other side of the substation, also  
12 be a benefit?

13                  MR. MILLER: Our testimony is that power  
14 plants in the Newark sites, alternate areas one  
15 through four, are good ideas, but that Metcalf  
16 Energy Center has unique benefits.

17                  MR. WOOD: And they're both needed.

18                  MR. GARBETT: They're both needed.  
19 Okay. We have projected efficiencies, or pardon  
20 me, of growth in the demand side. However, since  
21 we have had some major power outages lately do you  
22 believe that the business imposed cutbacks, such  
23 as half lighting on stores and other such things  
24 has actually changed the presumptions that you  
25 have made in your calculations?

1                   MR. HARRIS: I'm going to object on the  
2 basis that's beyond the scope of the direct  
3 testimony. There's no discussion of business  
4 lighting programs.

5                   HEARING OFFICER FAY: I'm going to have  
6 to sustain that, Mr. Garbett.

7                   MR. GARBETT: I figured that. The  
8 question was begging to be asked, though.

9                   With Metcalf Energy Center, being  
10 located where it is, will it benefit and actually  
11 drive industrial construction in the south San  
12 Jose or Edenvale, Silver Creek areas?

13                  MR. HARRIS: I want to object, the  
14 testimony doesn't talk about those subjects. So I  
15 would object on that basis.

16                  HEARING OFFICER FAY: Mr. Garbett, why  
17 don't you ask in terms of general development. I  
18 think that might be a little more fair. It's  
19 pretty hard for the witnesses to segregate when  
20 they haven't testified on types of --

21                  MR. GARBETT: If the Metcalf Energy  
22 Center was not built would it affect general  
23 development in the area you've depicted as a  
24 Metcalf load area?

25                  MR. MILLER: It's likely to have an

1 impact.

2 MR. GARBETT: Okay, thank you. I guess  
3 that concludes my questions, thank you.

4 HEARING OFFICER FAY: Okay, thank you  
5 very much.

6 Mr. Ratliff, are you ready to present  
7 your panel?

8 MR. RATLIFF: Yes. My panel is really  
9 Mr. Mackin as Mr. McCuen is sick, so a one-man  
10 panel.

11 HEARING OFFICER FAY: Okay.

12 MR. HARRIS: Mr. Fay, I'm sorry -- Mr.  
13 Fay, can I move my documents at this time?

14 HEARING OFFICER FAY: Oh, I'm sorry,  
15 yes.

16 MR. HARRIS: I have no redirect, by the  
17 way, because I know everybody would kill me, so I  
18 wanted to move, let's see --

19 HEARING OFFICER FAY: Can you hold on  
20 just a moment?

21 MR. HARRIS: Sure. Find the list.

22 All right, working my way down the list.  
23 I want to move exhibit 13, exhibit 14, exhibit 17,  
24 exhibit 24, and exhibit 38.

25 MR. WILLIAMS: Just a clarification.

1 Why does he have to move if they're already in?

2 MR. HARRIS: I'm sorry, and also exhibit  
3 27. They were marked previously, they haven't  
4 been admitted into evidence yet, so that's why  
5 they have exhibit numbers.

6 HEARING OFFICER FAY: And only those, so  
7 the others --

8 MR. HARRIS: Right.

9 HEARING OFFICER FAY: -- you choose not  
10 to move at this time?

11 MR. HARRIS: Right, the other ones are  
12 related, have alternatives discussions in them,  
13 and I'll move those tomorrow, I'll move the  
14 remainder tomorrow.

15 HEARING OFFICER FAY: Fine. Is there  
16 objection to receiving these exhibits into  
17 evidence?

18 Okay, hearing none, so moved.

19 Mr. Williams?

20 MR. WILLIAMS: I have one objection to  
21 appendix A. I couldn't tell whether that was --  
22 and that is material supports the bar charts. I  
23 believe the bar charts are misleading because they  
24 give the impression that there are hundreds of  
25 percents of reserved margin in California, when in

1 fact the low reserve margin in California is only  
2 between 5 and 10 percent, so they're obviously  
3 numerical errors in --

4 HEARING OFFICER FAY: Are you referring  
5 to the bar chart that was blown up and described  
6 earlier today?

7 MR. WILLIAMS: Yes, and I referred to it  
8 as appendix A, it's figure 1 in the testimony, I  
9 think, in appendix --

10 HEARING OFFICER FAY: Mr. Harris, can  
11 you identify that a little more precisely?

12 MR. HARRIS: Actually that was not one  
13 of the documents I moved. That is appendix K of  
14 our prefiled testimony. But since our  
15 alternatives discussion is also in that prefiled  
16 giant binder, I didn't move that yet. But it is  
17 part of the record.

18 HEARING OFFICER FAY: Okay, hold that  
19 objection.

20 MR. WILLIAMS: Then I --

21 HEARING OFFICER FAY: Okay. All right.  
22 So, we've received those exhibits that you've  
23 identified into the record, and now we'll move to  
24 Mr. Mackin's testimony. Mr. Mackin has previously  
25 been sworn.

1 MR. RATLIFF: Yes.

2 Whereupon,

3 R. PETER MACKIN

4 was recalled as a witness herein, and after first  
5 having been duly sworn, was examined and testified  
6 further as follows:

7 DIRECT EXAMINATION

8 BY MR. RATLIFF:

9 Q Mr. Mackin, could you explain your  
10 duties and responsibilities with the Independent  
11 System Operator?

12 A Yes. As I mentioned earlier, I am in  
13 charge, well, not in charge, but I oversee review  
14 of participating transmission owners, transmission  
15 plans to make sure that the plans will meet the  
16 reliability criteria.

17 And I also review generator  
18 interconnection studies to make sure that the  
19 studies, or that the generator interconnections  
20 will meet reliability criteria.

21 And also I work on new facility  
22 connection policy and long-term grid planning  
23 policy.

24 Q Did you, along with Mr. McCuen, put  
25 together the testimony called local system effects

1 that is part of the staff's final staff  
2 assessment?

3 A Yes, I did.

4 Q And did you also prepare a document  
5 entitled rebuttal testimony of CEC and Cal-ISO  
6 Staff to STCAG testimony on MEC local system  
7 effects?

8 A Yes, I did.

9 Q Is that testimony true and correct to  
10 the best of your knowledge and belief?

11 A Yes, it is.

12 Q Have you testified in previous Energy  
13 Commission siting cases?

14 A Yes, I have. I testified at the  
15 Pittsburg District Energy Facility which is now  
16 the LMEC; the Delta Energy Center; the Moss  
17 Landing Power Plant project; and the Three  
18 Mountain Power project.

19 Q Could you describe briefly the scope and  
20 purpose of your LSE testimony?

21 A The purpose of the LSE was to identify  
22 any electrical system benefits that may result  
23 from the interconnection of the MEC to the  
24 California-ISO controlled grid.

25 MR. RATLIFF: Before we go any further,

1 Mr. Fay, I neglected to mention that we have some  
2 rather small, but amendments to the testimony on  
3 pages 654 and 659, the two charts on page 654, and  
4 the list of deferred facilities on page 659, and  
5 those have been provided to you and will be  
6 distributed to the parties that update this  
7 testimony.

8 HEARING OFFICER FAY: And this is a  
9 single document?

10 MR. RATLIFF: Yes, a single-page  
11 document incorrectly numbered page 1. It is  
12 actually the upper half of the page is a  
13 correction to two charts on page 654. And a  
14 correction to the list of deferred facilities on  
15 page 659.

16 BY MR. RATLIFF:

17 Q Mr. Mackin, did you prepare the  
18 corrections that are being distributed currently?

19 A Yes, I did.

20 Q And are they also true and correct to  
21 the best of your knowledge and belief?

22 A Yes, they are.

23 Q Mr. Mackin, from a transmission planning  
24 perspective, does it make any difference where  
25 generation is located in relation to load?

1           A     Yes, it does.

2           Q     Could you explain?

3           A     Well, as remote generation is usually  
4     less reliable than local generation because you  
5     not only have the possibility of losing the  
6     generator, but if it's remote you have the  
7     possibility of losing the transmission connection  
8     that connects the generator to the load.

9                     And so your risk of load outages is  
10    greater.

11          Q     Theoretically is it possible to have all  
12    generation located away from urban areas in say  
13    the desert or the mountains?

14          A     Theoretically, yes.

15          Q     Why isn't that done?

16          A     It's very difficult, and expensive to  
17    do. You would have to build an inordinate number  
18    of transmission lines in order to maintain the  
19    same reliability with remote generation as local  
20    generation.

21                     And there's also concerns with voltage  
22    control and dynamic stability that would have to  
23    be addressed in the system design that would  
24    increase the costs if you tried to serve all local  
25    load with remote generation.

1           Q     Have you calculated the approximate load  
2 of the San Jose area?

3           A     Yes.  It's 2700 megawatts.

4           Q     And have you calculated the generation  
5 in that same area?

6           A     Yes, I did.  It's about 240 megawatts.  
7 And just to clarify that's the PG&E, San Jose and  
8 DeAnza divisions.  That's how I -- that's the  
9 definition of San Jose area that I used.

10          Q     Can you tell me in your experience what  
11 would be the normal differentiation between load  
12 and generation in urban areas?

13          A     Well, a general rule of thumb is to  
14 serve no more than 60 percent of your local load  
15 with imports, so 40 percent of your generation  
16 should be local.

17                     If you exceed 40 percent, then the  
18 control issues get difficult.

19          Q     Is the transmission system in San Jose  
20 heavily stressed in your opinion?

21          A     Yes, it is.

22          Q     Is that true of what has been called the  
23 San Jose area, where the area defined in the chart  
24 which was distributed by the applicant earlier was  
25 described as the natural service area for the

1 Metcalf substation?

2 A Yes.

3 Q In your duties at the ISO have you  
4 become familiar with the reliability of currently  
5 existing generation?

6 A Yes, I have.

7 Q Does the age of the older plants affect  
8 the reliability of the system?

9 A Yes, it does.

10 Q Could you explain?

11 A Well, the older units have a higher  
12 forced outage rate, they're more likely to be out  
13 of service. Their scheduled maintenance outages  
14 are longer because they are older. It's harder to  
15 get parts. You might even have to manufacture the  
16 parts.

17 So, the older the generation is the less  
18 it runs.

19 Q In your opinion would the MEC project  
20 provide reliability benefit to San Jose?

21 A Yes, it would.

22 Q Can you describe how?

23 A Well, the Metcalf Energy Center would  
24 provide 600 megawatts of real power, and 400  
25 megavars of reactive power. And that would help

1 support and improve the long-term reliability of  
2 the San Jose area.

3 It would also reduce system losses and  
4 provide operational flexibility. It would help  
5 protect the system against extreme contingencies  
6 such as has been mentioned earlier, the loss of  
7 the two 500 kV lines into Metcalf.

8 The Metcalf Energy Center would  
9 significantly reduce the amount of load shedding  
10 that would be required for that overlapping  
11 contingency.

12 Q You heard testimony previously today  
13 that if MEC had been on line on June 14, 2000, it  
14 probably would have averted the rolling blackouts  
15 on that date. Do you agree with that statement?

16 A Yes, I do.

17 Q In your opinion is MEC needed to provide  
18 security against similar planned or unplanned  
19 outages?

20 A Yes, the Metcalf Energy Center or an  
21 equivalent generator or reinforcements of another  
22 kind that would provide that security.

23 Q Is the Bay Area one of the most  
24 vulnerable areas in the state, in your opinion, to  
25 rolling blackouts?

1 A Yes, I think it is.

2 Q What are RMR costs?

3 A RMR costs, RMR stands for reliability  
4 must run, and RMR costs are the costs to procure a  
5 contractual arrangement with generators in a local  
6 area that generators are needed to maintain the  
7 reliability of the system because the transmission  
8 system serving that area is not adequate to serve  
9 all the load without the generation.

10 So, in order to maintain the local  
11 reliability and also to mitigate local market  
12 power of those generators, RMR contracts are used.

13 Q Did you calculate the RMR, what you  
14 would expect the reduction in RMR costs to be as  
15 the result of the MEC project?

16 A No, I didn't calculate numbers. I  
17 believe it would be reduced, though.

18 Q Would the MEC project affect line loss  
19 reductions?

20 A Yes, it would. According to our  
21 testimony and our analysis, in 2005 we estimate  
22 that line loss reductions for the PG&E system  
23 would exceed 81 gigawatt hours in the year 2005.

24 Q Would it result in the deferral of  
25 capital investment in transmission projects?

1           A     Yeah.  There is a possibility of some  
2     deferrals.  The deferrals that we've identified  
3     are the Newark Ravenswood 230 kV line.  It's eight  
4     miles long.  The Castro Valley Newark line is 25  
5     miles long.  The Tasajara TES junction, three and  
6     a half miles long.

7                     The ADCC to Newark 230 kv line, that's  
8     actually a circuit breaker, so it's not, there's  
9     no line length there.

10                    The Contra Costa to Los Positas line,  
11     which is 22 miles long.  And then in addition we  
12     identified voltage support at there's 104  
13     substations that have voltages that don't meet  
14     criteria in 2005 without the Metcalf Energy  
15     Center.  And so that would be voltage support  
16     required to meet the criteria, to raise the  
17     voltages at those stations.

18           Q     Now, in the amendments to your testimony  
19     that were just distributed, on page 659 of your  
20     testimony, you eliminated the first item on the  
21     list of deferred capital facilities, is that  
22     correct?

23           A     Yes.

24           Q     That's the third Metcalf 500 230 kV  
25     transformer?

1           A     Yes.

2           Q     Now, the explanation there is that this  
3 project was approved by the ISO Board of Governors  
4 on February 15 2001, is that correct?

5           A     Right. It was approved by the board in  
6 their deliberations on this project. The board  
7 had questions whether projects, generation  
8 projects proposed could defer the need for the  
9 transformer bank.

10                     It was -- the board was told that, yes,  
11 they could, but that there would be potential for,  
12 if the bank was not built there might be  
13 additional RMR costs. And so the board decided  
14 to go ahead with the bank because they felt it was  
15 the most economic thing to -- it was the most  
16 economic project, rather than deferral.

17           Q     You indicate that this will not be a  
18 deferred project. Is there any question about  
19 that result?

20           A     Well, it still -- the project has been  
21 approved by the ISO. It was proposed by PG&E in  
22 their assessment. However, PG&E management, the  
23 PG&E management that signs the checks, has not  
24 approved that project yet.

25                     So, it may -- it could still be

1 deferred. It just hasn't, you know, it needs PG&E  
2 management approval, which they don't have yet.

3 Q Since the energy situation has come to  
4 everyone's attention, a lot of other projects  
5 including transmission and generation and  
6 conservation have been proposed. And in some  
7 cases, approved.

8 Did any of these changes in the current  
9 picture change the conclusions of your testimony?

10 A No, they don't.

11 Q Can you explain?

12 A The load projections that we used in our  
13 analysis were fairly conservative. There was, at  
14 the time we did the analysis, there were, I  
15 believe, six peaker projects proposed for the Bay  
16 Area. Actually it may have been five in the Bay  
17 Area. And those projects have all been withdrawn.

18 So, and at this time there is only, that  
19 I'm aware of, there are only two projects in the  
20 Bay Area, peaker projects, and they're not in the  
21 San Jose area, they're in Pleasanton and  
22 Livermore.

23 So, at this point we believe the  
24 assumptions that we made are -- nothing has  
25 occurred to change those.

1           Q     That includes the licensing of the power  
2     plants by the Energy Commission that have occurred  
3     since you filed your testimony, including Moss  
4     Landing?

5           A     Yes, because we assumed at the time we  
6     prepared the testimony and did the analysis that  
7     the Moss Landing Power Plant would be licensed.  
8     So it was assumed as being available in the  
9     studies.

10          Q     Will the MEC project, in your opinion,  
11     relieve certain overloads that currently exist?

12          A     Yes, it will.

13          Q     Can you explain?

14          A     Well, as we described earlier, there are  
15     a number of projects, are a number of potential  
16     deferral projects where the MEC actually  
17     eliminates an overload in the year 2005. And so  
18     then those projects might be deferred for a number  
19     of years.

20                 There are also some additional  
21     overloaded facilities where the MEC actually  
22     reduces the overload. It doesn't provide a  
23     deferral because the facilities are still  
24     overloaded, so they still need to be reinforced.  
25     However, because it reduces the line overloads it

1 provides an additional margin for contingencies  
2 that are beyond the criteria that could cause a  
3 problem. Because the line loadings are now lower,  
4 if those contingencies occur, then the likelihood  
5 of a problem is much reduced.

6 Q Would the MEC project allow more energy  
7 to be delivered out of the Delta Energy Center?

8 A Yes, it would.

9 Q Have you calculated how much?

10 A I did a rough calculation and the number  
11 I came up with was approximately 100 megawatts.

12 Q In a physical sense, and purely in terms  
13 of where the electrons go, will MEC generation be  
14 consumed locally?

15 A Yes, it will. All generation is  
16 consumed at the load closest to the generation.  
17 And because the San Jose area load is 2700  
18 megawatts and Metcalf is 600, then by that  
19 analysis all the generation of Metcalf will be  
20 consumed locally.

21 Q Your original testimony assumed an  
22 online date for Metcalf Energy Center of 2002.  
23 It's obviously apparent at this point that it  
24 won't be before 2003. Does that change any of the  
25 conclusions in your testimony?

1           A     No, it does not.

2           Q     Since you have filed your testimony,  
3     have you seen any information which further  
4     confirmed your views concerning the need for local  
5     generation?

6           A     Yes, one piece of information that  
7     recently came to light was the load forecast that  
8     we assumed for Silicon Valley power in the  
9     analysis we did for local system effects.

10           We've recently come to realize that that  
11     load forecast is actually low by 160 megawatts.  
12     So, if that load were put into the new analysis we  
13     would have even more problems than what we  
14     identified in the analysis.

15           Q     In your opinion, and based on your  
16     experience in analyzing the San Jose area, do you  
17     think the area needs even more local generation  
18     than that that would be provided by MEC?

19           A     Yes, I do.

20           Q     Have you decided roughly how much?

21           A     Well, based on the 60/40 rule of thumb,  
22     you know, if the San Jose load is 2700 megawatts  
23     with 240 megawatts of current generation, 600 at  
24     MEC, you could have another 600 megawatts of  
25     generation in the San Jose area and be right

1 around 40 percent local.

2 MR. RATLIFF: That concludes my direct.

3 HEARING OFFICER FAY: All right. Did  
4 you want to identify some exhibits?

5 MR. RATLIFF: Yes. I think we have two,  
6 no, three exhibits -- no, actually two, I was  
7 right the first time. We have Mr. Mackin's  
8 rebuttal testimony -- it's the rebuttal testimony  
9 of Mr. McCuen and Mr. Mackin and H.A. McGouhan.

10 HEARING OFFICER FAY: Exhibit 157.

11 MR. RATLIFF: And I think we should make  
12 an exhibit of the correction page for pages 654  
13 and 659.

14 HEARING OFFICER FAY: Exhibit 158. Is  
15 Mr. Mackin available for cross-examination?

16 MR. RATLIFF: Yes.

17 HEARING OFFICER FAY: Mr. Harris, any  
18 questions?

19 MR. HARRIS: Took advantage of that,  
20 talked to my witnesses, and no, we have no  
21 questions.

22 HEARING OFFICER FAY: All right. Ms.  
23 Dent, do you have some questions of the staff?

24 MS. DENT: I do have questions for  
25 staff. I think I told you before the break that

1 I'm willing to let others go first if you'd like  
2 to do that, --

3 HEARING OFFICER FAY: Okay, appreciate  
4 that.

5 MS. DENT: -- so that they can have time  
6 for their questions. But I'll also go ahead and  
7 start tonight if you want me to.

8 HEARING OFFICER FAY: Well, why don't we  
9 take you up on your offer and see if Santa Teresa  
10 wants to go ahead with their cross.

11 MS. CORD: I wasn't really totally  
12 ready, but you want to go -- oh, Issa wants to go  
13 first, that's fine, because I wasn't really  
14 prepared. I have to get my notes together.

15 HEARING OFFICER FAY: I'm sorry, we are  
16 going to break, as Commissioner Laurie reminded  
17 me, we are going to break at 10:00. So, what we  
18 really should do is be sure we get somebody who  
19 has no more than 20 minutes of questions.

20 MR. AJLOUNY: Then we're coming at 10:00  
21 tomorrow morning?

22 PRESIDING MEMBER LAURIE: No, 9:00.

23 MR. AJLOUNY: 9:00 tomorrow morning?

24 MR. WILLIAMS: We'd better let Issa go  
25 now because he won't be able to come --

1 MS. DENT: I'll go ahead and start if  
2 you want me to, and see what I can get done in 20  
3 minutes. I mean I thought that I would just be --

4 (Parties speaking simultaneously.)

5 MR. AJLOUNY: But I mean I guess --

6 PRESIDING MEMBER LAURIE: What do you  
7 need? What's your problem?

8 MR. AJLOUNY: How much more time do we  
9 -- how much adding the time up. I thought we'd go  
10 till midnight and be done with it today.

11 HEARING OFFICER FAY: No.

12 MR. AJLOUNY: It won't work?

13 HEARING OFFICER FAY: It would be better  
14 to start earlier tomorrow. It's just people get  
15 exhausted and it's very tough on them.

16 MR. AJLOUNY: Okay, well, then it's only  
17 20 minutes, I don't want to go --

18 HEARING OFFICER FAY: Okay, Ms. Dent, do  
19 you want to go ahead and give it a shot?

20 MS. DENT: I'll get started anyway. I  
21 can't say that I'll finish in 20 minutes, but I'll  
22 go as quickly as I can.

23 CROSS-EXAMINATION

24 BY MS. DENT:

25 Q I have a couple of general questions

1 first. It goes back to the natural service area  
2 for Metcalf versus the San Jose and DeAnza  
3 divisions, and it sounded to me, Mr. Mackin, from  
4 your testimony today that for your local systems  
5 effects study you used the PG&E San Jose and  
6 DeAnza divisions, you did not use the -- this  
7 creature that was created for this proceeding of  
8 the Metcalf natural service area.

9 So if you could just kind of clarify  
10 that for me?

11 A Yes, I used the PG&E divisions, San Jose  
12 and DeAnza.

13 Q Thank you. And then so you included in  
14 your calculations generation that would be located  
15 in north San Jose, Milpitas and Santa Clara, and  
16 you also included in your calculations loadings  
17 from those areas, as well, or demand from those  
18 areas, as well, that were excluded from Calpine's  
19 calculations?

20 A Well, I guess I don't know what was  
21 included or excluded in Calpine's calculations.  
22 But, --

23 Q Well, maybe it would be best if you took  
24 a look at the map that they introduced.

25 A Well, I've seen the map, but the map

1 doesn't give me the loads. It only gives me the  
2 substations. So unless I know what the loads are  
3 I can't really address that question.

4 Q Well, you mentioned Silicon Valley Power  
5 just a minute ago.

6 A Right.

7 Q And Silicon Valley Power is the City of  
8 Santa Clara's power company, is that correct?

9 A Yes, it is.

10 Q So if you were just talking about a  
11 difference in loading for Silicon Valley Power,  
12 some greater or lesser loading than you had  
13 previously estimated, the fact that the City of  
14 Santa Clara is not included in the Metcalf Energy  
15 Commission natural service area, but it is  
16 included in the DeAnza and San Jose divisions,  
17 would make a difference to the way you all ran  
18 these calculations, would it not?

19 A Well, I need to correct your question.  
20 The Silicon Valley Power is not included in PG&E's  
21 San Jose or DeAnza divisions. It's a separate  
22 area.

23 And so the numbers that I was using with  
24 2700 megawatts and 240 megawatts of generation  
25 does not include Silicon Valley Power load, and

1 does not include Silicon Valley Power generation.

2 Q So the math that Calpine provided then  
3 of the DeAnza and San Jose divisions isn't  
4 accurate, it shows the City of Santa Clara in it.

5 MR. RATLIFF: Is there a question?

6 BY MS. DENT:

7 Q I'm just asking -- I'm asking him can  
8 you tell me whether the map correctly shows the  
9 divisions?

10 A Well, okay, the division boundary, the  
11 green line does include Kuyfer and Scott, which is  
12 Silicon Valley Power. The natural service  
13 boundary of MEC does not.

14 But I guess even though the green line  
15 does include Silicon Valley Power, in my  
16 calculations it doesn't. It's left out.

17 Q So your -- I just really am trying to  
18 understand because the terminology has been used  
19 so differently throughout the testimony, your  
20 calculations and your testimony then relates to  
21 the DeAnza and San Jose divisions with the  
22 exception of Silicon Valley Power?

23 A I guess in order to answer that  
24 question, I can't answer it yes or no. Silicon  
25 Valley Power is not included in PG&E's DeAnza and

1 San Jose divisions. It never has been.

2 So, the correct answer is I used PG&E's  
3 San Jose and DeAnza divisions. I did not include  
4 Silicon Valley Power because they're not part of  
5 those divisions.

6 Q And how about the City of Palo Alto's  
7 public utility, you didn't include it, either?

8 A No.

9 Q And how about -- I don't know if any of  
10 the other municipalities further north have  
11 municipal utilities, but do you know whether or  
12 not those municipal utilities were included in  
13 your --

14 A Well, I guess I need to clarify. They  
15 were not included in the numbers that I just gave.  
16 They were included in the study because they're  
17 part of the model.

18 Q Were the demand from those areas  
19 included in your analysis?

20 A Yes.

21 Q And were generating sources in those  
22 areas included in your analysis?

23 A Yes, they were.

24 Q So, your analysis did include, then,  
25 demand from the City of Santa Clara and --

1 A Yes.

2 Q -- generation from the City of Santa  
3 Clara?

4 A Yes, it did.

5 Q And it included demand from the City of  
6 Palo Alto and generation from the City of Palo  
7 Alto?

8 A Demand. Palo Alto has no generation.

9 Q If they had it it would have included  
10 it?

11 A Yes.

12 Q And so the same thing then for any other  
13 municipal utilities, you did include in your study  
14 the demand and --

15 A Yes.

16 Q -- generation, if they had it? Okay.  
17 Another clarifying issue on the numbers. On page  
18 644 of your testimony we have peak demand  
19 forecasts on page 644 in the second and third  
20 paragraphs there at the bottom of the page for the  
21 DeAnza division and for the San Jose division in  
22 2005, about 3000 megawatts if you add the two  
23 numbers.

24 But on the top of page 645 there's a  
25 different number for the model's load for 2005,

1 it's only slightly higher, it's about 3300.

2 And I'm wondering if the South Bay Area  
3 that you describe at the bottom of page 644 is  
4 different than the DeAnza and San Jose divisions.  
5 Is that a larger area?

6 A No, it's the same. The reason for the  
7 difference is the load forecasts in the first two  
8 paragraphs you mentioned were from PG&E's 1999  
9 transmission assessment and their 1999 load  
10 forecast. And the numbers on page 645 were the  
11 numbers that we actually used in our LSE analysis,  
12 which --

13 Q Okay.

14 A -- reflected new load forecasts.

15 Q Okay. Thank you. On page 645 of your  
16 testimony then, right below the load forecast, you  
17 indicate that while it's possible to operate a  
18 system devoid of local generation reliably using  
19 capacitors, there are serious operational  
20 difficulties. That these operational difficulties  
21 affect sensitive manufacturing and data processing  
22 loads.

23 So am I to understand from your  
24 testimony then that capacitors are adequate to  
25 maintain voltage for nonsensitive loads such as

1 residential loads or commercial loads? That  
2 that's one way to maintain voltage for those kind  
3 of loads?

4 A Well, if you use those capacitors for  
5 residential loads, the industrial loads are going  
6 to see the same impacts. So, you have to design  
7 the system to meet the most stringent  
8 requirements.

9 So if the industrial loads require  
10 minimal voltage flicker and can't be served with  
11 just capacitors, then the residential customers  
12 get the benefit of that, because then they're not  
13 going to see the flicker, either. Because you  
14 can't build a system with just capacitors.

15 Q Well, my question, though, is that if  
16 you have just a residential load -- I mean your  
17 testimony indicates that capacitors are used. I  
18 mean that is one method of controlling voltage,  
19 that's correct?

20 A Oh, yeah.

21 Q So if you had just a residential load  
22 this voltage fluctuation that you're talking about  
23 wouldn't have as much of an impact on your need  
24 for local generation, is that accurate?

25 A Well, if you're only concerned about the

1 voltage fluctuations, then the answer is yes.

2 Q I was just asking about that section of  
3 your testimony, yes. At the top of page 645 of  
4 your testimony, the first full sentence: Power to  
5 the northern portion of the South Bay Area, Newark  
6 and Los Isteros substations is provided primarily  
7 from Tesla and Metcalf. And you referenced  
8 figure 2.

9 Now, are the Newark and Los Isteros  
10 substations both located then within the area that  
11 you studied for your local systems effects study,  
12 are they in the northern part of the San Jose and  
13 DeAnza division?

14 A Well, technically Newark is in Mission  
15 division, so it's actually outside the San Jose  
16 area. Los Isteros is inside, or will be inside.

17 Q And do you have an estimate about the  
18 division as between Tesla and Metcalf for the  
19 northern portion of the South Bay Area that you're  
20 describing there?

21 A Okay, so you're -- I guess I'm --

22 Q Well, you say power to the northern  
23 portion of the South Bay Area is provided  
24 primarily from Tesla and Metcalf.

25 A Right.

1 Q Do you know what percentage comes from  
2 Tesla versus Metcalf?

3 A I don't know a precise number. It's  
4 mostly from Tesla though.

5 Q So most of the power to the northern  
6 portion of the area that you studied comes from  
7 Tesla, that's just what you said?

8 A Yes.

9 Q Now you used -- instead of the Metcalf  
10 service area you used the San Jose and DeAnza  
11 divisions. Do you have an estimate of the -- how  
12 much comes into the area that you were studying,  
13 the San Jose and DeAnza divisions, from Newark  
14 versus Los Isteros versus Metcalf?

15 A No, I don't. Most of it comes from  
16 Metcalf.

17 Q For the entire area that you were  
18 studying?

19 A Yes.

20 Q So, when you enlarge the area you think  
21 more of the power comes from Metcalf?

22 A And you're referring to San Jose and  
23 DeAnza divisions?

24 Q Right.

25 A Yes.

1 Q What's your definition of a long  
2 transmission circuit as you describe on page 645  
3 of your testimony? It's in the middle of the  
4 page.

5 A I guess it really depends on the voltage  
6 and the load served, how long it is. A 500 kV  
7 line that's 200 miles long might be long, but a,  
8 you know, 60 kV line that's 20 miles could be  
9 long. It's not, you know, the definition of  
10 length isn't distance, it's electrical.

11 Q Well, but there are capacitors  
12 throughout this area, are there not?

13 A The San Jose and DeAnza divisions?

14 Q Yes.

15 A Yes.

16 Q Okay. In making the systems benefit  
17 analysis that you reference on page 646 of your  
18 testimony, did you include all of the transmission  
19 and system -- transmission system improvements  
20 that are included in the five-year PG&E  
21 transmission expansion plan?

22 A Which transmission expansion plan? The  
23 1999 expansion plan?

24 Q Right. I mean your reference is to the  
25 1999 transmission expansion plan. And I can be a

1 little more specific. You referenced the  
2 transmission expansion plan in the first paragraph  
3 on page 646. But then you indicate that you only,  
4 you incorporated the latest approved Bay Area  
5 transmission reinforcements into your basecase.

6 So my question is were there  
7 transmission improvements in the PG&E transmission  
8 expansion plan that you didn't incorporate into  
9 your basecase?

10 A Yeah, there were.

11 Q And can you tell me which ones those  
12 were?

13 A I can't tell you every one, but I can  
14 tell you in general. The ones we didn't include  
15 would be ones that would not affect the local  
16 system effects analysis.

17 So if there was a project in Fresno we  
18 didn't include it. Or a project in Red Bluff, we  
19 wouldn't include it.

20 But we did include every single project  
21 in the Bay Area. For the 2005 case we included  
22 every PG&E approved project, well, ISO and PG&E  
23 approved project, in the Bay Area.

24 Q Thank you.

25 A Okay.

1           Q     Again, looking at page 646 of your  
2           testimony, there's a sentence in the middle of the  
3           page: In the South Bay Area significant upgrades  
4           of the transmission infrastructure is required if  
5           power is not sited locally.

6                     Are you referring to some transmission  
7           upgrades other than the planned transmission  
8           system improvements that we just spoke about in  
9           the PG&E expansion plan? Are there other  
10          transmission system improvements that you think  
11          are specifically needed if generation is not sited  
12          locally?

13          A     Yes.

14          Q     And have you described those in your  
15          testimony?

16          A     We mentioned some project deferrals. We  
17          didn't specifically identify what projects would  
18          be needed to reliably serve Bay Area load in the  
19          absence of MEC. That was not the purpose of our  
20          testimony.

21          Q     I'm sorry, maybe I misunderstood the  
22          earlier testimony about the deferrals, but I  
23          thought the earlier testimony about the deferrals  
24          related to deferral of projects that were on the  
25          PG&E 1999 expansion plan.

1           A     Oh, no, that was not correct.  What the  
2     project deferrals mentioned in the testimony, what  
3     those were were simply when we did the analysis we  
4     identified overloaded facilities.  Without the  
5     Metcalf Energy Center there were some facilities  
6     that were overloaded.

7           A     After we put the Metcalf Energy Center  
8     in the model, those overloads were eliminated.  So  
9     we said, okay, those facilities where the  
10    overloads are eliminated would be potential  
11    deferral candidates.

12           A     Now none of those facilities are  
13    actually in PG&E's 1999 transmission expansion  
14    plan as a facility.

15           Q     But those facilities are actually needed  
16    right now, then, according to your testimony  
17    because MEC is not in?

18           A     No, because this was a 2005 analysis.  
19    So they will be needed by 2005.

20           Q     And they will be needed by 2005 based on  
21    the demand projections?

22           A     That's part of the input, yes.

23           Q     But they're not needed right now?

24           A     I guess maybe -- could you ask the  
25    question one more time?  I'm not clear on the

1 question.

2 Q Well, we're talking about these upgrades  
3 to the transmission system that will be required  
4 if power is not sited locally. And I think you  
5 just said that there were some upgrades to the  
6 transmission system that are not on PG&E's  
7 expansion plans that you think would be needed by  
8 2005 if power is not sited locally.

9 A Yes.

10 Q So is 2005 there the same timeframe that  
11 you're looking at for the need for the local  
12 generation?

13 A Well, when we did our LSC we looked at  
14 both 2002 and 2005.

15 Q Well, so --

16 A So, --

17 Q -- so are these transmission system  
18 improvements going to be needed by 2002? We know,  
19 or have heard that MEC is not going to be in by  
20 2002, so did your analysis show that if MEC is not  
21 in by 2002 the transmission system improvements  
22 are going to be needed by 2002?

23 A There was only one facility that we  
24 identified in the original analysis, there was  
25 only one facility that showed up as a problem in

1 2002. And that was the Metcalf transformer, --

2 Q Which is --

3 A -- which is already an approved project  
4 that's due to be in service by 2002.

5 Q So then the timeframe again that we're  
6 looking at for either the transmission system  
7 improvements or Metcalf Energy Center, according  
8 to your analysis, is 2005? You didn't run it for  
9 2004 or 2003, I guess?

10 A Right. We did not do -- well, actually  
11 we did look at some sensitivities for 2003, and  
12 that was to update the analysis just to make sure  
13 that for 2003 we were still, because of the moving  
14 online date, that we were still okay.

15 But 2004 we didn't do. Now, so what we  
16 have is we have identified overloads in 2005, but  
17 we don't know when those actually occur. They  
18 could occur in 2004 or 2003, we just don't know.

19 HEARING OFFICER FAY: Ms. Dent, we're at  
20 10:00. How much longer do you have?

21 MS. DENT: Well, I probably have another  
22 20 -- I told you 45 minutes. So I probably do  
23 have another 20 or 25 minutes. I'm sorry.

24 HEARING OFFICER FAY: Okay. We will --

25 MR. AJLOUNY: Before you say it, can we

1 meet at 10:00, I mean --

2 HEARING OFFICER FAY: The Commissioner  
3 indicated 9:00, and that would give more time to  
4 you and others.

5 PRESIDING MEMBER LAURIE: The purpose,  
6 if you're not here at 9:00 we'll take you when you  
7 get here.

8 HEARING OFFICER FAY: Yeah.

9 MR. AJLOUNY: Okay.

10 PRESIDING MEMBER LAURIE: The purpose is  
11 to allow you all to have the time that you need.

12 MR. AJLOUNY: Yeah, okay. No, and I do  
13 appreciate that. I just thought, you know, 10:00  
14 to 2:00, four hours, maybe an hour for lunch,  
15 three hours we'd be done with that. But I didn't  
16 add the numbers --

17 HEARING OFFICER FAY: Well, we have Mr.  
18 Alton's testimony, too. And they indicated an  
19 hour just for the direct.

20 So, we're trying to accommodate -- well,  
21 even if it's half that, people may want to cross-  
22 examine you, so.

23 By 2:00, yeah, alternatives by 2:00,  
24 okay.

25 MR. AJLOUNY: 9:00 tomorrow?

1 HEARING OFFICER FAY: 9:00 tomorrow  
2 morning. Thank you, we are adjourned.  
3 (Whereupon, at 10:10 p.m., the hearing  
4 was adjourned, to reconvene at 9:00  
5 a.m., Tuesday, March 13, 2001, at this  
6 same location.)

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## CERTIFICATE OF REPORTER

I, JAMES RAMOS, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Energy Commission Hearing; that it was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said hearing, nor in any way interested in outcome of said hearing.

IN WITNESS WHEREOF, I have hereunto set my hand this 18th day of March, 2001.

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