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2
3 IN THE UNITED STATES OF AMERICA
4 BEFORE THE
5 FEDERAL ENERGY REGULATORY COMMISSION
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9 Pacific Gas & Electric Company) Docket Nos. ER97-2358-000 and
10) ER98-2351-000
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14 Prepared Cross-Answering Testimony of
15 Jeffrey C. Miller
16 On Behalf of the California Independent System Operator Corporation
17
18

19 **Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

20 A. My name is Jeffrey C. Miller and my business address is 151 Blue Ravine
21 Road, Folsom, California, 95630.
22

23 **Q. IN WHAT CAPACITY ARE YOU EMPLOYED?**

24 A. I am employed as a Regional Transmission Manager for the California
25 Independent System Operator Corporation (ISO). I am responsible for
26 overseeing the planning of the northern half of the ISO transmission Grid.
27

28 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL
29 QUALIFICATIONS.**

30 A. Prior to working for the California ISO, I worked for Sacramento Municipal
31 Utility District ("SMUD") in Sacramento, California, the American Electric
32 Power Company ("AEP") in Columbus, Ohio, and the Western Area Power

1 Administration (“WAPA”) in Sacramento, California. At SMUD, I was the
2 Supervisor of Transmission Planning and was responsible for planning
3 additions to SMUD’s transmission system. At AEP, I worked in the Bulk
4 Transmission Planning Division, which is responsible for planning
5 additions to AEP’s 345 kV, 500 kV, and 765 kV transmission system. At
6 WAPA, I was responsible for various transmission planning activities in
7 California including chairing one of the two work groups responsible for
8 planning the California-Oregon Transmission Project. I attended the Ohio
9 State University where I received a Bachelor of Science and Master of
10 Science Degree in Electrical Engineering in 1980 and 1981, respectively.
11 I am a registered Professional Engineer in the states of Ohio and
12 California.

13
14 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

15 A. Yes, I have testified before the Commission on several occasions
16 concerning transmission issues for the Sacramento Municipal Utility
17 District.

18 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

19 A. I have been asked to provide testimony related to the request for customer
20 credits made by the Modesto Irrigation District (“Modesto”), the
21 Sacramento Municipal Utility District (“SMUD”), the Turlock Irrigation
22 District, the Western Area Power Administration (“WAPA”), and certain
23 members of the Northern California Power Agency (“NCPA”) (together the
24 “Public Entities”) for transmission facilities they own. The facilities are

1 identified in the testimony of Public Entities' Witness Reising. My
2 testimony will be limited to issues related to the physical relationship
3 between ISO controlled transmission facilities and transmission facilities
4 owned by the Public Entities, including their design, operation, and use.

5
6 **Q. HOW HAVE YOU PREPARED YOURSELF TO GIVE TESTIMONY IN**
7 **THIS PROCEEDING?**

8 A. I have reviewed the testimony filed by Mr. Reising and others.

9
10 **Q. ON WHAT BASIS CAN A PUBLIC ENTITY RECEIVE A**
11 **TRANSMISSION CREDIT BECAUSE OF ITS INVESTMENT IN**
12 **TRANSMISSION FACILITIES?**

13 A. As described in the testimony of my colleague Mr. Greenleaf, the
14 Commission has established criteria that must be satisfied in order for a
15 transmission customer to warrant a credit for its transmission facility
16 investments.

17
18 **Q. PLEASE BRIEFLY DESCRIBE THE COMMISSION CRITERIA.**

19 A. As described by Mr. Greenleaf, the Commission requires that, in order for
20 a customer's transmission facilities to warrant a credit, the customer must
21 demonstrate that its transmission facilities are integrated with the facilities
22 of the transmission provider. The Commission has stated that the mere
23 fact that a transmission customer's facilities are interconnected with a
24 transmission provider's system does not prove that the two systems

1 comprise an integrated whole such that the transmission provider is able
2 to provide transmission service to itself or others over those facilities-a key
3 requirement of integration. In addition, the Commission has explained that
4 the fact that a transmission facility constitutes a parallel path and is
5 subject to loop flow does not dictate a conclusion that the line operates as
6 part of the integrated transmission system.

7
8 **Q. HAVE YOU APPLIED THIS TEST TO THE PUBLIC ENTITIES’**
9 **TRANSMISSION FACILITIES?**

10 A. Yes I have.

11 **Q. IN YOUR OPINION, BASED ON THE PUBLIC ENTITIES’ TESTIMONY**
12 **AND YOUR KNOWLEDGE OF THE TRANSMISSION SYSTEM IN**
13 **QUESTION, HAS THE ENTITLEMENT TO A CREDIT BEEN**
14 **SATISFIED?**

15 A. No, the Public Entities have not made the required showing and therefore
16 a transmission credit would be inappropriate.

17
18 **Q. WHAT IS THE BASIS FOR YOUR OPINION?**

19 A. The Public Entities have not demonstrated that the their transmission
20 facilities and the ISO-controlled facilities are integrated such that the ISO
21 can use their facilities and the facilities it controls to provide transmission
22 service to its customers. While the combined transmission system does
23 operate as an interconnected transmission system, the ability to use that

1 system has been divided among the entities owning the facilities and the
2 right to use those facilities has not been integrated.

3
4 **Q. WHY SHOULD THE PUBLIC ENTITIES' TRANSMISSION FACILITIES**
5 **NOT BE ELIGIBLE FOR A CREDIT?**

6 A. In my judgment, while these facilities may be interconnected, they are not
7 integrated as defined by the Commission. That is, the Public Entities'
8 facilities are used by their owners and cannot be used by the ISO to serve
9 its customers. The existing (ISO-controlled) network does not receive an
10 increase in its capacity or scheduling capability from the Public Entities'
11 facilities. Under normal operation, energy is scheduled over the Public
12 Entities' facilities based on ownership and contractual agreements and the
13 ISO cannot schedule transmission of the Public Entities' facilities for
14 entities taking service under the ISO Tariff.

15
16 In very limited circumstances, the ISO does have the ability to make use
17 of the Public Entities' transmission facilities. If the Municipals have left a
18 portion of that capacity unutilized in the real-time market, the ISO can
19 make use of such capacity to ensure reliability – for example, to
20 accommodate the transmission of energy necessary to keep supply and
21 demand in balance. In addition, as is common in arrangements among
22 interconnected systems, the ISO can direct utilization of the Municipals'
23 entitlements to meet a threat to reliable operations. This use, however,
24 only occurs after all schedules have been submitted and accommodated.

1 The availability of this capacity for this limited purpose does not enable the
2 ISO to accept more schedules from transmission customers.

3

4 **Q. WITNESS REISING STATES THAT THE PUBLIC ENTITIES’**
5 **FACILITIES ARE ELIGIBLE FOR A CREDIT BECAUSE THEY**
6 **FUNCTION IN THE SAME MANNER AS DO PG&E FACILITIES AND**
7 **THEY PROVIDE SUPPORT TO THE PG&E SYSTEM, INCLUDING**
8 **VOLTAGE SUPPORT AND BACKUP SUPPORT IN THE CASE OF**
9 **OUTAGES. DO YOU AGREE?**

10 A. No. With regard to the first point, the attributes Mr. Reising notes merely
11 show that the facilities are interconnected transmission facilities. If the
12 ISO had control of these facilities, it might be able to use them to serve
13 customers. However, without such control, the facilities cannot be used
14 by the ISO and they cannot be said to be integrated with the PG&E
15 facilities that are now controlled by the ISO.

16

17 With regard to the second point, under infrequent emergency conditions,
18 all transmission facilities operating in parallel back each other up if there is
19 a disturbance on the system. The transmission grid in California is no
20 exception. Typically, there are formal or informal mutual assistance
21 agreements in place that delineate the actions that are to be taken, who
22 will take them and to what extent. This is true of all systems in the
23 Western Interconnection. However, a transmission credit does not appear
24 reasonable for action taken under emergency conditions since the benefits

1 accrue to both parties (Public Entities and ISO entities) and over time will
2 likely net to zero. Also, these types of events are very infrequent
3 compared to normal operation.

4
5 Using Mr. Reising's logic, all systems in the Western Interconnection could
6 be considered to be integrated since they all may provide some mutual
7 benefits and therefore all of them would be eligible for a credit. However,
8 it is unreasonable to attempt to provide an interconnection-wide crediting
9 mechanism for this mutual benefit.

10
11 **Q. WITNESS REISING ALSO SUGGESTS THAT THE FACILITIES**
12 **QUALIFY FOR A CREDIT BECAUSE, ABSENT THEIR**
13 **CONSTRUCTION, PG&E WOULD HAVE BEEN REQUIRED TO BUILD**
14 **SIMILAR FACILITIES. DO YOU AGREE?**

15 A. No. Such hypotheticals do not tell us anything about the operational
16 aspects of these facilities. As I understand the Commission's test for
17 integration, it is concerned with the manner in which the facilities
18 operationally serve the transmission provider's customers.

19
20 **Q. MIGHT YOUR CONCLUSIONS CHANGE IF THE PUBLIC ENTITIES**
21 **WERE TO BECOME PTOs?**

22 A. Yes, my conclusions would likely change. If the Public Entities were to
23 join the ISO and transfer control over their portion of the transmission
24 facilities to the ISO, the ISO could be in a position to integrate (as defined

1 by the Commission) the Public Entities' share of the remote facilities with
2 facilities already under ISO control.

3
4 There might be instances, however, in which the facilities were not directly
5 connected to the ISO Grid. In such circumstances, the ability of the ISO to
6 integrate the facilities might depend upon whether the ISO has the ability
7 to schedule power over those facilities.

8
9 If the ISO has the ability to integrate the use of the Public Entity's
10 transmission facilities within the ISO-controlled network, it would allow ISO
11 entities to schedule additional capacity and energy, and possibly off-
12 system ancillary services, a clear benefit to the ISO. The ISO Tariff would
13 of course, determine the compensation under such circumstances.

14

15 **Q. THANK YOU. THERE ARE NO FURTHER QUESTIONS.**