

**PUBLIC UTILITIES COMMISSION**

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



**ORIGINAL**

December 28, 1998

**TO: PARTIES OF RECORD IN RULEMAKING 94-04-031,  
INVESTIGATION 94-04-032**

Decision 98-12-065 was signed on December 17, 1998 with a dissent from Commissioner Conlon. However, the dissent is not available at the time of mailing the enclosed decision. It will be mailed at a later date.

A handwritten signature in cursive script that reads "Lynn T. Carew".

Lynn T. Carew, Chief  
Administrative Law Judge

LTC:vdI

Enclosure

35314

Decision 98-12-065 December 17, 1998

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking on the Commission's Proposed Policies Governing Restructuring California's Electric Services Industry and Reforming Regulation.

Rulemaking 94-04-031  
(Filed April 20, 1994)

Order Instituting Investigation on the Commission's Proposed Policies Governing Restructuring California's Electric Services Industry and Reforming Regulation.

Investigation 94-04-032  
(Filed April 20, 1994)

**INTERIM DECISION REGARDING 20 TO 50 KILOWATT  
DIRECT ACCESS CUSTOMERS**

**Summary**

Today's decision addresses the meter exemption for direct access customers with a demand between 20 and 50 kilowatts (kW). That issue was the subject of the September 25, 1998 workshop convened by the Energy Division. We adopt the consensus recommendation that 20 to 50 kW direct access customers be allowed to continue using load profiles until March 31, 2002. They will continue to be exempt from the hourly interval meter requirement until that time. The Energy Division will hold a workshop in the year 2000 to reevaluate the use of load profiles, and to develop a final recommendation regarding the meter exemption for those customers.

**Background**

In Decision (D.) 97-05-040, the Commission decided that those end-use customers who want to participate in direct access, and whose maximum

demand is equal to or greater than 20 kW, would be required to have an hourly interval meter. The Commission, however, expressed a willingness to consider a possible exemption to this meter requirement for those customers. (D.97-05-040, p. 35.) As a result of a workshop held in June 1997, the Commission authorized the use of load profiles for direct access customers with a maximum demand of 20 to 50 kW, until September 30, 1998.<sup>1</sup> (D.97-10-086, p. 37.) This date was subsequently extended to January 1, 1999 as a result of the delay in the start up of operations by the Independent System Operator and the Power Exchange. (D.97-12-131, pp. 6, 12.)

D.97-10-086 directed the Energy Division to convene a workshop to look into the cost impact of requiring hourly interval meters for those customers with a maximum demand of 20 to 50 kW, and to address whether the load profiles for these customers should be extended or discontinued. The decision also set forth several issues that were to be addressed in the workshop. (D.97-10-086, pp. 37-38.) The workshop notice was mailed to the service list on September 10, 1998, and the workshop was held on September 25, 1998.

In preparation for the workshop, the workshop notice asked the parties to respond to the following questions:

1. What are the costs associated with hourly interval metering?
2. What is the likely cost impact of imposing the hourly interval metering requirement on customers whose maximum demands fall within the 20 to 50 kW range?
3. How many customers in the 20 to 50 kW range are on load profiles, and how many have hourly interval meters?

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<sup>1</sup> These direct access customers have the option of installing an hourly interval meter should they decide to do so.

4. Should the load profiles for these customers be extended or discontinued in light of the metering situation?
5. Should hearings be held to resolve this issue?
6. What are the inconsistencies between the UDCs in the 20 kW load profiles threshold? What do parties recommend as to how these inconsistencies should be resolved?

Following the workshop, the Energy Division filed its "Report on Direct Access Load Profiling Workshop Ordered by D.97-10-086" (Workshop Report) on October 2, 1998. Attached to the Workshop Report were the responses of the parties who commented on the six questions that were posed in the workshop notice.

Parties were given an opportunity to file comments to the Workshop Report. Comments were filed by the following: the staff of the California Energy Commission (CEC); California City-County Street Light Association (CAL-SLA); California Farm Bureau Federation; CellNet Data Systems, Inc. (CellNet); Enron Corporation, New Energy Ventures, L.L.C., Green Mountain Energy Resources, L.L.C., California Department of General Services, PG&E Energy Services Corporation, University of California and California State University, and California Retailers Association (Joining Parties); Pacific Gas and Electric Company (PG&E) and San Diego Gas & Electric Company (SDG&B); Payless Shoesource, Inc. (Payless); Preferred Energy Services, Inc. (PES); Southern California Edison Company (SCE); and the University of California and the California State University (UC/CSU).

#### **Summary of the Workshop Report**

The workshop discussions were organized around the six questions that were posed in the workshop notice. At the conclusion of those discussions, the participants discussed and agreed to make a consensus recommendation to the Commission. In order to gain an understanding of the reasons for our actions

today, it is useful to briefly describe the participants' responses to the six questions posed in the workshop notice.

On the question regarding the number of customers in the 20 to 50 kW range who are on load profiles, and how many have hourly interval meters, the following information was provided:

Utility Distribution Company	Total Number Of 20-50 kW Customers	Total Number Of Direct Access 20-50 kW Customers	Total Number Of Direct Access Customers With Hourly Interval Meters
SCE	50,000	3,000	100
PG&E	50,000	1,700	100
SDG&E	6,270	371	28

The Workshop Report points out that the above data shows that only a handful of the 20 to 50 kW direct access customers have hourly interval meters.

On the second question regarding the costs associated with hourly interval metering, the original cost information that was submitted was not directly comparable due to differences in assumptions and formatting. After a standardized format was developed, cost information utilizing this format was supplied by PG&E, SCE, SDG&E, Enron, and CellNet Data Systems, Inc. This cost information appears in Attachment C to the Workshop Report.

The cost to purchase an interval meter for direct access ranges from \$300 to \$1,500, depending on the functions that the meter has. The cost to install and program the meter, and the recurring monthly costs for meter services and meter reading are also considerations. In addition, some meters might require a telephone line in order to obtain real-time information.

The purpose of asking the third question about the likely cost impact of imposing the hourly interval meter requirement on customers whose maximum

demand fall within the 20 to 50 kW range was to determine how such a requirement will affect a customer's decision to select direct access. After reviewing the responses to the workshop notice and discussing this topic at the workshop, the Energy Division concludes in the Workshop Report at page 7 that:

"(1) the available market information and experiences of direct access participants are still insufficient to answer this question with any analytical precision; and (2) anecdotal evidence and everyday observations strongly suggest that the costs associated with hourly interval metering render the purchase of a meter for direct access uneconomic."

The Energy Division supports the general workshop view that the imposition of an hourly meter requirement on this group would likely lead these customers to conclude that switching to direct access does not make economic sense. This view is supported by the above data which shows that most of the direct access customers in this group have selected the load profiling option over the installation of an hourly meter.

The Workshop Report also points out that some of the participants felt that a definitive statement on the cost effectiveness of this requirement would be premature because the true costs and benefits of hourly interval metering are not yet known.

The fourth question sought comments on whether the use of load profiles for 20 to 50 kW customers should be extended or discontinued. The responses that were submitted prior to the workshop set forth a range of proposals. The utilities favor the use of hourly interval meters over load profiles because of the accuracy of assigning energy costs to each customer. However, the utilities differ on the timetable for phasing out the use of load profiles. The non-utility participants generally favor the status quo, i.e., letting the customer decide whether to use the load profile or to obtain an hourly interval meter.

In response to the fifth question about the need for hearings, the participants agreed that hearings were not necessary. The Workshop Report notes that the participants favor the holding of another workshop to facilitate any transition to meters and the phase out of load profiles.

The final question relates to whether there are any inconsistencies in the way in which the UDCs have implemented the 20 kW load profile threshold. The Workshop Report states that the utilities have implemented the 20 kW threshold in the following manner:

"for customers with demand meters the utilities will screen customers to determine accounts with maximum demand of less than 20 kW in 9 of the last 12 billing cycles. For customers without demand meters, rate schedule definitions are used as a proxy for the 20 kW breakpoint."

The workshop participants agreed that any inconsistencies in applying the 20 kW threshold can be more effectively addressed in the Commission's Rule 22 Tariff Review Group. This group was established to review the operations of the direct access tariffs and to consider any changes to the tariffs. (D.97-10-087, pp. 69-70.)

During the workshop, the participants developed a list of possible actions the Commission could take. These ranged from ending the meter exemption and a phase-out of the load profiles for customers currently on profiles, extending the exemption to a particular date, or to make permanent the meter exemption and use of load profiles.

Following the discussion on the range of possible options, the participants agreed to consider reaching a consensus recommendation.<sup>2</sup> Part of the reason for

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<sup>2</sup> In footnote 1 of SCE's comments, SCE states that it did not agree at the workshop to extend the meter exemption through March 31, 2002.

reaching a consensus appears to be the need for certainty so that the market participants can reflect the Commission's policies in their plans.

The participants to the workshop recommend the following: The existing meter exemption for 20 to 50 kW customers be left in place until March 31, 2002; the Energy Division would conduct a workshop to be held no later than June 30, 2000, to reevaluate the use of load profiles, and to make a final recommendation to the Commission regarding the 20 to 50 kW issue; the Commission would then issue a final decision on this issue no later than March 31, 2001, and that decision would include any transition or phase-out plan, if necessary.

#### **Position of the Parties**

The comments filed by the CEC staff state that it did not participate in the workshop. The CEC staff does not favor the consensus view, and offer its comments to provide the Commission with an alternative perspective on the 20 to 50 kW issue.

The comments state that the CEC has previously voiced its support for universal or widespread interval metering. The staff of the CEC believe that the consensus agreement to continue the use of load profiles for 20 to 50 kW customers will slow the installation of interval metering and delay the implementation of the market structure that Assembly Bill 1890 (Stats. 1996, ch. 854) had envisioned.

The CEC staff contends that the 20 to 50 kW customers who use load profiles are insulated from the market clearing prices for electricity from the Power Exchange (PX). Since load profiles are permitted, this customer class does not have any incentive to adjust their load pattern during the hours of high PX prices, nor do they have an incentive to increase their load during the hours of low PX prices. The CEC contends that the imposition of an hourly interval



metering requirement on this customer group would change this existing behavior.

The CEC staff believes that sufficient information and experience now exists for the Commission to conclude that interval metering systems for 20 to 50 kW customers are now cost effective. Using the cost data submitted by the parties, along with assumptions about a 50 percent load factor and an average annual PX price benefit of \$0.005 per kilowatt hour, the CEC staff estimates hypothetical annual energy savings of \$438 for a 20 kW sized customer, and \$1,095 for a 50 kW sized customer. As shown in Table 1 of the CEC staff's comments, it is estimated that the larger customer can recoup the cost of an hourly interval meter in 6 to 13 months, while the smaller sized customer can recoup the cost in 13 to 29 months. The CEC staff contends that these break-even points are reasonable and justify terminating the use of load profiles for 20 to 50 kW direct access customers.

The comments of the CEC staff also contend that the cost effectiveness of hourly interval meters is supported by two additional reasons. First, beginning on January 1, 1999, competitors will be permitted to offer metering services and systems to smaller customers. (See D.97-05-039.) The CEC staff expects that these competitive suppliers will be able to price below what the utility distribution companies are charging. Second, the CEC staff expects metering system costs to come down as the volume of metering system installations increase. If 20 to 50 kW direct access customers are required to have hourly interval meters, the CEC staff points out that this will contribute to the cost reductions per unit.

Should the Commission impose the hourly interval meter requirement on 20 to 50 kW customers, the CEC staff recommends that there be a six-month transition period to allow meter service providers sufficient time to complete the new installations.

CAL-SLA recommends that the consensus recommendation be adopted. Many of its members have electric accounts with a maximum demand between 20 and 50 kW. For these accounts, its members have found that it is not cost effective to install an hourly interval meter.

The Joining Parties support the consensus recommendation, and recommend that the Commission continue the meter exemption until at least March 31, 2002. They contend that for most 20 to 50 kW customers, it would be uneconomic for them to install an hourly interval meter. These customers should continue to have the option of deciding whether to invest in such a meter.

The Joining Parties also favor the consensus recommendation that the Commission adopt a procedure to reevaluate whether the meter exemption should be extended beyond March 31, 2002. They further suggest that a single procedural schedule be followed for determining whether load profiling should continue for customers below 50 kW, and whether there should be an hourly interval meter requirement for all customers, i.e., both bundled and direct access customers.

The joint comments of PG&E and SDG&E support the consensus recommendation. They contend that "For the foreseeable future, mandating interval metering may not facilitate but could well impede the development of direct access markets." They also recommend that the schedule for evaluating the meter exemption for 20 to 50 kW direct access customers be aligned with the process for evaluating whether interval metering should be required for direct access customers with demand below 20 kW.

SCE agrees with the consensus recommendation that a workshop to evaluate the meter exemption be held no later than June 30, 2000. SCE, however, does not agree that the meter exemption should continue until March 31, 2002. Instead, SCE recommends that the Commission decide on an appropriate

implementation date based on the conditions existing at the time the workshop is held. SCE agrees that any issue about the 20 kW threshold be addressed by the Rule 22 Working Group.

The UC/CSU comments also support the consensus recommendation. The accounts of these college campuses fall mostly into the medium (20 to 50 kW) and large (above 50 kW) account categories. The comments point out that most of the campuses with medium accounts have chosen to use load profiles instead of installing hourly interval meters. The UC/CSU comments state that under the current market conditions, there are not sufficient savings to justify the installation of an interval meter.

The California Farm Bureau Federation, CellNet, Payless, and PES also filed comments in support of the consensus recommendation.

#### Discussion

A substantial majority of the current direct access customers within the 20 to 50 kW range have elected to use the load profiles that are available to them, rather than to procure an hourly interval meter. This result suggests that these customers have evaluated the costs and benefits of having such a meter versus the ability to use a load profile. Based on the data gathered from the workshop, the costs associated with metering are not insignificant, and are made up of both recurring and nonrecurring costs.

In providing for the hourly interval meter exemption for 20 to 50 kW direct access customers, and allowing load profiles to be used, the Commission felt that this would encourage more customers to sign up for direct access. (D.97-10-086, p. 36.) Although the staff of the CEC has raised some valid points, we believe that with the relatively small number of direct access customers in the 20 to 50 kW range, imposing the meter requirement at this time is likely to result in added costs to these existing and new customers. Even if we assume that the CEC

staff's estimate of the break-even points are correct, the additional costs associated with having an hourly interval meter might act as a disincentive for these customers from signing up for direct access. Imposing the meter requirement at this time may also minimize, in the eyes of the potential direct access customer, any savings an electric service provider could offer.

Based on the data and the comments before us, we agree with the consensus recommendation that for an interim period, 20 to 50 kW direct access customers should continue to be exempt from the requirement that they have an hourly interval meter. Those direct access customers may continue to elect to use load profiles. Unless extended by the Commission, this exemption and the use of load profiles for this customer group, should terminate on March 31, 2002. We have considered SCE's point that the termination date of the exemption should depend upon the circumstances existing at the time of the workshop. However, we believe that the March 31, 2002 termination date will provide some certainty and enable interested participants to adequately plan for the future.

As the CEC staff points out, perhaps as the meter market develops, the cost of hourly interval meters and the associated meter services may decrease. Such an outcome would lend additional support to the elimination of the use of load profiles for the 20 to 50 kW direct access customers. However, that has not occurred yet. We believe that at this stage, it is more important to encourage direct access participation in the 20 to 50 kW range through the use of load profiles, rather than to discourage participation by mandating that hourly interval meters be used.

The issues that the CEC staff has raised, as well as our reasons for today's action, should be reexamined in a workshop to be organized by the Energy Division. That workshop should be held sometime during the first six months of the year 2000. (See D.97-05-040, p. 36.) We agree with the consensus

recommendation that one of the purposes of the workshop should be to develop a final recommendation regarding the use of load profiles for 20 to 50 kW direct access customers. In developing the final recommendation, the participants to the workshop should consider what kind of transition period, if any, is needed so that any final Commission policy can be implemented smoothly.

We also agree with the comments of some of the parties which recommend that the workshop should also address whether load profiles for direct access customers with a demand of less than 20 kW should continue or if they should be required to have hourly interval meters. (See D.97-05-040, p. 36.) We also agree with the comments of the Joining Parties that it would be appropriate for the workshop to examine the issue of whether bundled customers with a demand of less than 50 kW should be required to have hourly interval meters.

Within 45 days of the workshop, the Energy Division will be directed to file and serve its report on the workshop. Interested parties may file responses to the report within 30 days of its filing. The Commission will then endeavor to issue a final decision on the issues covered by the workshop before April of 2001. This should allow affected parties enough time to incorporate any final Commission policies into their operational plans.

Any issues regarding how the 20 kW threshold is determined should be considered in the Rule 22 Working Group process.

CellNet's comments raise concerns regarding the fact that the utilities have not proposed a performance-based ratemaking (PBR) approach to automated meter reading (AMR). CellNet's concern is that the proposal in the unbundling decision, D.97-05-039, was not sufficiently detailed to give the utilities adequate guidance. CellNet contends that without adequate certainty of the PBR over the long term, that this additional regulatory risk might hamper cost-effective deployment of AMR. We share CellNet's concern.

In D.97-05-039 we laid out the basic framework of a metering PBR. Under this framework, the utilities would be allowed to deploy AMR and they would be able to reap the benefits of the cost savings or additional revenue that might come in as a result of the AMR deployment. We left it to the utilities to develop a proper metering PBR and to propose such a plan to the Commission. No utility has chosen to do so.

The primary reason for utilizing a metering PBR is to remove the Commission from having to make determinations of whether investment in AMR is cost effective. The purpose of the metering PBR was to align the utilities' incentives in such a way that would encourage the utilities to make cost effective AMR investments because they would be the beneficiaries of the cost reduction. CellNet is concerned that uncertainty surrounding the ability of the utility to retain these cost savings once they are achieved hinders the deployment of AMR and the advancement of a metering PBR proposal.

We agree with CellNet. It is key that the regulatory bargain that is developed as part of a metering PBR be kept over the long term. We also acknowledge that the metering PBR must be in existence for a sufficient length of time so that the investment can be recouped through the cost savings it generates. In addition, we note that any sharing of risk and reward, necessarily blunts the incentives inherent in such a regulatory framework. The more that the utility must share cost savings with ratepayers, the greater the risk that cost effective investments will not be made unless the risk of a non-cost effective investment is also shared. What is key for any type of PBR or incentive based framework is that the basic incentives remain in place for the duration of the program. However, it is incumbent upon the utilities to bring forward a specific metering PBR that has the appropriate framework and incentives. We cannot, however, utilize this proceeding to design such a regulatory framework.

### **Findings of Fact**

1. In D.97-10-086, the Commission authorized the use of load profiles for direct access customers with a maximum demand of 20 to 50 kW until September 30, 1998.
2. D.97-12-131 extended the use of load profiles for 20 to 50 kW direct access customers until January 1, 1999.
3. D.97-10-086 directed the Energy Division to convene a workshop to address, among other things, whether the load profiles for 20 to 50 kW direct access customers should be extended or discontinued.
4. The workshop ordered by D.97-10-086 was held on September 25, 1998.
5. The workshop notice asked the parties to respond to six questions.
6. The Workshop Report was filed on October 2, 1998.
7. The responses to the questions posed by the workshop notice were summarized in the Workshop Report, and made an attachment to that report.
8. The participants at the workshop agreed to a consensus recommendation.
9. A substantial majority of the current direct access customers within the 20 to 50 kW range have elected to use load profiles instead of installing an hourly interval meter.
10. The costs associated with metering are not insignificant.
11. When the hourly interval meter exemption for 20 to 50 kW direct access customers was adopted, the Commission felt that its adoption would encourage more customers to sign up for direct access.
12. Imposition of the meter requirement at this time is likely to result in added costs to 20 to 50 kW direct access customers, and may discourage them from signing up for direct access.
13. CellNet's comments raised concerns that no utility has proposed a PBR for AMR.

14. Sufficient assurances must be in place to encourage the submission of a metering PBR proposal.

#### **Conclusions of Law**

1. 20 to 50 kW direct access customers should continue to be exempt from the hourly interval meter requirement until March 31, 2002.

2. 20 to 50 kW direct access customers should be permitted to continue using load profiles until March 31, 2002.

3. Load profiling issues should be reexamined in a future workshop.

4. Any issues about the 20 kW threshold should be addressed by the Rule 22 Working Group.

5. The purpose of the metering PBR framework in D.97-05-039 was to align the utilities' incentives in such a way that would encourage utilities to make cost effective AMR investments.

#### **INTERIM ORDER**

1. Electricity customers with a maximum demand of 20 kilowatts (kW) or greater, but less than 50 kW, shall continue to be exempt from the requirement that they have an hourly interval meter in order to participate in direct access.

a. Unless extended by the Commission, this meter exemption shall terminate on March 31, 2002.

b. The customers in the 20 to 50 kW range who want to participate in direct access may continue to use load profiles until March 31, 2002.

2. The Energy Division is directed to convene a workshop no later than June 30, 2000 to examine the use of load profiles, whether the meter exemption for 20 to 50 kW direct access customers and for direct access customers with a demand of less than 20 kW should continue or be terminated, and whether



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hourly interval meters should be required of bundled customers with a demand of less than 50 kW.

a. Within 45 days of the workshop, the Energy Division shall file and serve its report regarding the workshop.

b. Interested parties may file responses to this workshop report within 30 days of its filing.

This order is effective today.

Dated December 17, 1998, at San Francisco, California.

RICHARD A. BILAS  
President  
JESSIE J. KNIGHT, JR.  
HENRY M. DUQUE  
JOSIAH L. NEEPER  
Commissioners

I will file a dissent.

/s/ P. GREGORY CONLON  
Commissioner