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Decision 90-12-013 December 6, 1990

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

SAMUEL J. CRAGLE,

Complainant,

vs.

PACIFIC GAS AND ELECTRIC COMPANY,

Defendant.

ORIGINAL

Case 88-01-025
(Filed January 21, 1988)

Samuel J. Cragle, for himself, complainant.
Barbara S. Benson, Attorney at Law, for
Pacific Gas and Electric Company,
defendant.

O P I N I O N

This complaint was filed as a result of a bill sent to Samuel J. Cragle by Pacific Gas and Electric Company (PG&E) in the amount of \$5,904.92. The complaint alleges that PG&E says that the meter at the Cragle residence was tampered with and that is the reason for the bill. Complainant denies tampering with the meter and requests that he be relieved from payment of the bill and be given a written apology by PG&E.

A public hearing was held before Administrative Law Judge O'Leary on May 2, 1990 at Grass Valley. The matter was submitted on June 13, 1990 with the filing of the transcript.

Evidence on behalf of complainant was presented by himself. Evidence on behalf of defendant was presented through two witnesses.

Ted Smith, a revenue protection representative employed by PG&E submitted prepared testimony which is set forth in Exhibit 2. Portions of Exhibit 2 are set forth below:

"Q2 As a revenue protection representative, did you become acquainted with Mr. Samuel Cragle's electric account?

"A2 Yes. Mr. Samuel J. Cragle has been a customer of record at 18242 Brewer Road, Grass Valley, California, since July 12, 1983. On that date, a PG&E serviceman went out to visually read the electric meter. As per company policy, the serviceman would also have also physically inspected the meter to ensure that it was locked into place.

"On February 4, 1987, during the course of obtaining the regular monthly meter reading, PG&E's meter reader observed that the meter box was open and the electric meter had recorded only 10 KWH's of usage for the prior month. This was surprisingly low. Our meter reader did not go up to the meter for a closer inspection because of Mr. Cragle's dogs. Our meter reader reported what he had seen to me.

"On March 16, 1987, I made a field call to Mr. Cragle's residence to inspect the electric metering facilities. On inspection, I observed the following conditions, which collectively indicated meter tampering had been occurring for an extended period of time:

- "1. Electric meter No. N44305, which is assigned to the above address, was in the meter socket correctly; however, the meter dials were out of alignment. (See Exhibit 1, Photo 1.)
- "2. The outer seal, which is designed to seal the meter outer retaining ring, was cut and put back together to make it appear as though it were still sealed.
- "3. The metal outer retaining ring, which is designed to hold the electric meter in place, had shiny marks on the inside surface of the ring at the sealing point. (See Exhibit 1, Photo 2.) The

presence of numerous shiny wear marks indicated that the ring had been opened and closed many times. Also, the meter ring was sprung, again an indication that it had been opened and closed many times.

- "4. The inner seal, which is designed to secure the plastic meter cover to the meter base, was severely bent out of shape and mangled and showed signs of wear indicating that it had been removed and reinstalled on numerous occasions. (See Exhibit 1, Photos 5 and 6.)
- "5. The plastic meter cover came off with no effort, because the meter clips which are designed to hold the plastic meter cover tight were sprung (see Exhibit 1, Photo 4) and one of the three had been bent against the cover. (See Exhibit 1, Photo 3.) This was another indication that the plastic meter cover had been removed from the meter on numerous occasions.
- "6. The meter face had smudge marks around the meter dial. (See Exhibit 1, Photo 7.) The misalignment of the meter dial along with the smudge marks around the meter dial are an indication that someone had moved the dials to record a fictitious reading. In addition to the smudge marks on the meter dial, there were scratch marks on the meter's I.D. plate below the meter disc indicating that someone had placed a foreign object between the I.D. plate and the disc to stop the meter from recording the energy being used (i.e., a piece of wood or clip on the disc). (See Exhibit 1, Photo 8.)

"In other words, not only did the meter show unmistakable signs that it had been opened numerous times and that the recording disk had been slowed or stopped but also that the dials had been adjusted to reflect less energy usage.

"I removed the meter for evidence (which was later tested for accuracy and found to be within acceptable tolerances) and installed a new electric meter. I then installed a hardened steel outer security ring to secure the new electric meter to the panel. (Exhibit 2.)

"I determined that a 5.6 KW load was being used at that time. That amount of load at that time, if it were to stay constant for one hour, would consume 5.6 KWH of electricity. Mr. Cragle's previous month's kilowatt hour usage was only 10 KWH (Jan. 7 - Feb. 4, 1987). Thus, on March 16, 1987, Mr. Cragle's load, if it remained constant for one hour, would have resulted in a usage which was more than half of the total amount used for the previous month! If this load had remained constant for 12 hours, this would have resulted in 67.2 KWH of usage; if such load had continued for 12 hours per day for 30 days, 2,016 KWH of electricity would be used. This is far greater than any monthly usage ever recorded for Mr. Cragle! This observation was supported by my reading of Mr. Cragle's meter on March 17, 1987, which indicated a usage of 64 KWH per day. (See Exhibit 3.)

"When I reread Mr. Cragle's meter on March 20, 1987, the load at that time was 5.4 KW which, if it remained constant for an hour, results in a usage which is still over half of the January-February 1987 registered usage and (if used for 12 hours per day) results in a 1,920 KWH usage for a 30-day period. Again such usage is higher than ever recorded for Mr. Cragle.

"After I changed the meter, I monitored Mr. Cragle's new meter:

<u>"Date</u>	<u>Reading</u>	<u>Daily Average (KWH)</u>
"March 17, 1987	00064	64
"March 20, 1987	00226	54
"March 25, 1987	00585	71.8

"April 1, 1987	01008	60.4
"April 3, 1987	01097	44.5
"April 7, 1987	01318	55.3
"April 10, 1987	01449	43.7
"April 17, 1987	01771	46

"These readings showed a large increase in the daily amount of energy being consumed with a correct meter reading over readings from prior periods. (See Exhibit 3.)

"On April 21, 1987, I interviewed Mr. Cragle and went over his account with him. I asked Mr. Cragle if he had ever removed the electric meter or cut the seal. Mr. Cragle acknowledged that the seal had been cut for years. He stated that he had an electrician do some work for his house and the electrician had cut the seal to remove the meter.

"I went over the monthly KWH usage for Mr. Cragle's residence from July 12, 1983, to April 1987 with him and pointed out how the monthly KWH usage fluctuated widely from month to month (see Exhibit 3). The wide swings in these readings indicated that energy diversion had occurred in the past, since usage usually follows a consistent pattern, without such wide swings.

"I pointed out that for January 1987, his recorded usage was 1660 KWH's, for February 1987 his recorded usage was 10 KWH's and for March 1987 his recorded usage was 1031 KWH.

"I asked Mr. Cragle to provide me with documentation concerning his full connected load. Although I followed this verbal request with three letters, I have not received such documentation to date. I also unsuccessfully tried to arrange a load check of Mr. Cragle's residence. During the interview, Mr. Cragle admitted to

having the following electric load: general lighting, frost-free refrigerator (approximately 18 cubic feet), electric water heater, well pump, dishwasher, two waterbeds and spa. With that connected load, one would expect a minimum monthly electric consumption of at least 930 KWH and an average daily consumption of 30.6 KWH. Without the spa and waterbeds, one would expect such load to result in a minimum monthly electric consumption of at least 630 KWH and a daily consumption of 20.7 KWH. However, Mr. Cragle's daily average consumption of 71.8 KWH from March 20, 1987 to March 25, 1987 demonstrated that he had other undisclosed electric load.

"Additionally, on November 23, 1987, Mr. Cragle began receiving propane service for a gas water heater and gas range. (See Exhibit 9.) Thus, after November of 1987, Mr. Cragle no longer used his electric water heater (average monthly usage = 481 KWH) or electric range. Still, even without such appliances, in December of 1987, Mr. Cragle's average daily electric usage was 60.3 KWH (1,930 KWH for a 32-day period). This usage indicates that Mr. Cragle has substantial additional electric load that he had not divulged to PG&E."

Smith also testified that since complainant's energy usage showed large fluctuations almost immediately after his service began on July 12, 1983, he concluded that the meter tampering commenced with the first billing period. The bill for unmetered energy was calculated by establishing a base year for billing through a comparison of usage on the entire route. To establish the percentage of monthly usage, 1984 was used. Table 1 sets forth the method to arrive at the average monthly usage as follows:

TABLE 1

<u>Date</u>	<u>Combined Monthly Usage</u>	<u>Number of Customers</u>	<u>Average Monthly Usage</u>
1-84	201486	182	1107
2-84	164317	181	908
3-84	145267	183	794
4-84	148045	183	809
5-84	160984	182	885
6-84	149926	181	828
7-84	136178	180	757
8-84	169588	179	947
9-84	159218	179	889
10-84	187103	179	1045
11-84	200588	179	1121
12-84	193990	176	1102

The base period used to determine complainant's actual usage was March 16 to April 7, 1987, a period of 22 days. The 22-day period was used because it was the time frame of PG&E's April 1987 billing to complainant which was the first billing period when the new meter was in place. During the 22-day period complainant's usage according to the new meter totaled 1,318 kWh. The 1,318 was then divided by 22 to arrive at a daily energy usage figure of 59.91 for the month of April. To arrive at the total annual usage the daily April usage was multiplied by the 29 days in the billing cycle then divided by the 7.23% of annual usage for April (Table 1) times 100 which results in a total annual usage of 24,025 kWh

Table 2 sets forth the average daily amount of energy that complainant should have been billed for each month based upon the above data and the data set forth in Table 1 as follows:

TABLE 2

Month	Pct. of Total	Monthly Usage	Days in Cycle	Daily Avg. Usage
January	9.89	2376	31	76.6475
February	8.11	1948	28	69.5867
March	7.09	1703	32	53.2304
April	7.23	1737	29	59.8968
May	7.91	1900	30	63.3459
June	7.40	1778	32	55.5578
July	6.76	1624	30	54.1363
August	8.46	2033	29	70.0867
September	7.94	1908	33	57.8056
October	9.34	2244	29	77.3770
November	10.02	2407	29	83.0105
December	9.85	2366	33	71.7110

The daily average usage was multiplied by the number of days in each billing period from July 1983 to March 1987 to arrive at the total amount used. From this the usage previously billed was deducted to arrive at the amount owed by complainant.

Table 3 sets forth PG&E's calculation of the backbilling for the entire period as follows:

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July	6.76	1624	30	54.1363
August	8.46	2033	29	70.0867
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Bill Mintun, another revenue protection analyst described the four basic techniques used by PG&E to bill for unmetered energy usage. Mintun identified the four techniques as follows:

1. Fixed percent of increase in usage.

Normally used when a meter is not recording a known percentage of consumption.

2. Comparison of corresponding periods.

Normally used to compare a fully metered usage period with a period wherein unmetered energy was used.

3. Comparative test read.

Normally used when a known consistent load is to be rebuilt.

4. Percentage of annual use.

Normally used to compare known usage to establish the normal percentages for either a five customer comparison or an entire route comparison.

Complainant testified that during the period in question the house was being constructed and that during construction he and his wife were living in a motor home located on the property where the house was being constructed.

Complainant further testified that prior to 1987 he did a lot of welding in connection with his business and that would account for the variation in the electric meter. He also testified that for approximately two months prior to 1987 there was an electric water heater in the house which was removed and replaced with a propane water heater.

He also testified that he and his wife were away for a two-week period over the Christmas holiday period in 1986 and that they returned to Southern California and resided there for the entire month of February because of the illness of his daughter Kathleen. He further testified that another daughter who was

pregnant moved in with them also in March of 1987. She had two king-size waterbeds that were also moved into the house. The heaters on the waterbeds are set at 100 degrees for the entire winter. Complainant also testified that he had a jacuzzi at one time, however it is unclear when the jacuzzi was in place. It well may have been after the period in question.

Discussion

The evidence presented by the complainant is very confusing to say the least. He testified that he did not occupy the house until March 1987, however the letter attached to the complaint states that the complainant and his wife moved into the house in March 1985. The letter also states that prior to that time the home had no roof, no walls, no insulation, and no drywall on framing.

Complainant also states in the letter and the complaint that neither he nor any member of his family tampered with any meter.

The evidence is convincing that the meter at complainant's residence has been tampered with. In 1984 we instituted an investigation concerning the establishment of procedures by energy utilities to correct alleged undercharges. Decision (D.) 86-06-035 (21 CPUC 2d 270) sets forth the procedures utilities are to follow in this type of instance.

In that decision we required the utilities to file tariff rules in conformance with the proposed rules set forth in Appendix A of the decision. One of the proposed tariff rules was a limit to the backbilling to a period of up to three years. At the hearing PG&E set forth the amount of the backbilling for a three-year period to be \$4,898.30. (Table 3 shows the total to be \$4,891.57.)

We now address whether PG&E's estimate of the unmetered energy is reasonable. We are convinced that the meter at complainant's residence has been tampered with. PG&E alleges that

the tampering commenced almost immediately after complainant obtained service. We find no evidence to contradict that allegation. In computing the usage PG&E's method assumes complainant to be residing in the house for the entire period. The evidence as to when complainant moved in is conflicting. At one point complainant states he moved in in March of 1987 and at another point he states he moved in in March of 1985. We are convinced that the actual move-in date was March 1985. Prior to that time complainant testified that he resided in a trailer which was parked on the property. It may well be that prior to March 1985 there was unrecorded energy usage, however we are convinced that the energy consumed while residing in the trailer was less than what would have been consumed while living in the house. PG&E should resubmit its bill to complainant to recover the amount due for unmetered energy from March 1985 to March 1987. The total amount for that period is \$3,206.85.

Findings of Fact

1. Complainant's electric meter was repeatedly tampered with from July 1983 to March 1987.
2. PG&E seeks to recover \$4,898.30 for the three-year period March 1984 to March 1987 based on its estimate of unmetered usage during that period. The actual amount per Table 3 is \$4,891.57.
3. Complainant received the benefit of unmetered electricity during this period.
4. During the period July 1983 to March 1985 complainant was constructing his house and was residing in a trailer on the property.
5. Electricity to the trailer was supplied from the electric service to the property.
6. Complainant moved into his house in March 1985.
7. PG&E's estimate of unmetered electricity usage is reasonable for the period March 1985 to March 1987.

8. PG&E's estimate of unmetered electricity usage is unreasonable for the period March 1984 to March 1985.

Conclusion of Law

The backbilling should be resubmitted to complainant for the 24-month period ending March 1987 in the amount of \$3,199.02.

O R D E R

IT IS ORDERED that Pacific Gas and Electric Company resubmit its bill to complainant consistent with this decision.

This order becomes effective 30 days from today.

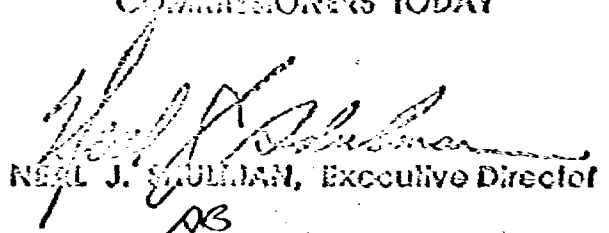
Dated December 6, 1990, at San Francisco, California.

G. MITCHELL WILK
President
FREDERICK R. DUDA
STANLEY W. HULETT
JOHN B. OHANIAN
PATRICIA M. ECKERT
Commissioners

I will file a written concurring opinion.

/s/ FREDERICK R. DUDA
Commissioner

I CERTIFY THAT THIS DECISION
WAS APPROVED BY THE ABOVE
COMMISSIONERS TODAY


NEAL J. SULLIVAN, Executive Director

FREDERICK R. DUDA, Commissioner, concurring.

I have no problem supporting the finding that complainant should be billed for unmetered electricity.

I am, however, concerned that PG&E is still using a flawed backbilling method, contrary to our recommendations in a similar energy diversion case, Folts v. PG&E, D.89-09-090, 32 CPUC 2d 477. In Folts, the Commission pointed out that the "percentage of annual use" backbilling method was extremely sensitive to the base month chosen, and that backbills based on a single month of actual untampered use may not accurately reflect the electricity received by the backbilled customer. In Folts, the choice of a different, but equally valid, base month would have resulted in a backbill that was 54% lower than the backbill based on the month actually chosen by PG&E.

In the present case, PG&E relies on only 22 days of untampered usage during the first billing period after Cragle's meter was changed. This is even less than the single month relied on in Folts. In addition, the use of data from the month immediately following the detection and replacement of a tampered meter seems inconsistent with PG&E's contention in the Folts' case that customers often reduce their usage after energy diversion is discovered in order to obfuscate past activity. Finally, there seems to be no good reason why PG&E could not have used a longer base period for its percentage of annual use calculations. After all, the hearing in this proceeding did not take place until May 2, 1990, a full three years after the abbreviated base month actually used in PG&E's backbill calculations.

I fully support PG&E's efforts to backbill customers who receive the benefit of unmetered energy. The analytical

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methods the utility uses to make its backbill calculations,
however, should be fair and reasonable.

A handwritten signature in cursive script, reading "Frederick R. Duda".

Frederick R. Duda, Commissioner

December 6, 1990
San Francisco, California