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Decision 89 08 002 AUG 3 1989

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Peter J. Sargota, Jr., Complainant, vs. Pacific Gas and Electric Company, Defendant.	Case 88-03-069 (Filed March 31, 1988)

W. N. Witchez, Attorney at Law, for Peter J. Sargota, Jr., complainant.
Mark E. Brown, Attorney at Law, for Pacific Gas and Electric Company, defendant.

O P I N I O N

Complainant Peter J. Sargota, Jr. (Sargota) disputes an electric bill from defendant Pacific Gas and Electric Company (PG&E) for unmetered energy in the amount of $6,511.95 for usage at his residence at 3235 East Ashlan Avenue in Fresno during the period of March 4, 1980 to August 4, 1987. PG&E rendered the bill after allegedly discovering the meter in an inverted position at the residence. Sargota also alleges in the complaint that as a result of PG&E terminating his electric service he lost a job to build 12 homes since his answering machine could not operate. Sargota is a general contractor. Sargota does not ask for damages or reparations for his alleged loss.

At the hearings on June 2 and 3, 1988, Sargota appeared and was represented by attorney Wayne N. Witchez. Sargota's testimony may be summarized as follows:

1. He knows nothing about meter tampering.

2. He has been having problems with bills from PG&E in recent years as they did not read his meter monthly. He requested PG&E to read it monthly, but they apparently did not because he had a dog in the yard where the meter is located. The dog died a few years ago so there is no reason for PG&E to not read the meter regularly. PG&E also has permission from Sargota's neighbor to read his meter from their yard.

3. The amount of backbilling for unmetered energy could not be correct since his normal electric bills have been around $50 except for the times when PG&E billed for more than one month.

4. He does not believe that he benefited from unmetered energy, but if the meter actually was inverted as PG&E alleges, it might have been inverted for only one day.

PG&E presented the testimony of Roy H. Metzler, a revenue protection representative, who investigated the case. Metzler's testimony may be summarized as follows:

1. A PG&E meter reader found the meter in an inverted position on July 20, 1987. When a meter is inverted it runs backward. Instead of registering current usage, it erases past recorded usage. Metzler subsequently observed the meter and premises, took readings at various times, and found a number of suspicious things.

a. The meter was unusually clean and devoid of the normal accumulation of dust on the outside. However, this could be due to the meter having been cleaned.

b. There was an accumulation of dust inside the meter on surfaces that are normally inverted, i.e., on the underside of the meter in its normal position. Metzler believes that such an accumulation of dust would tend to indicate that the meter had been inverted for significant periods of time.

c. Metzler found the meter seal to have been modified in such a manner that the seal looked intact, but could be removed by

pulling on it. The seal must be removed, allowing the lock ring to be removed, before the meter can be removed and inverted.

d. The lock ring screw head was substantially worn, apparently from being repeatedly used to open and close the lock ring. The screw must be loosened before the lock ring can be removed. A screwdriver was observed on the ground near the meter.

e. The meter prongs exhibited substantial wear. Metzler compared the meter prongs with the wear patterns on a test meter that was cycled repeatedly in a test fixture containing a meter box, similar to the type used on PG&E's residential meters. Each cycle consists of removing the meter from the normal upright position, reinserting it in an inverted position, then removing and reinstalling it in its original normal position. The test meter was cycled a total of 300 times, with wear patterns on the prongs observed and photographed at varying intervals. The nickel plating on the prongs began to wear through, exposing the copper base metal after 175 cycles. After 300 cycles, significant copper was visible. The other significant result of the repeated cycles is the wear pattern on the prongs. Due to the jaws of the meter box having varying tensions and imperfect alignment, the wear pattern on each of the prongs is unique, somewhat comparable to a ballistics pattern. If the meter is inserted in the same position each time, the pattern is different on each prong since each jaw is different. However, when the meter is installed in an inverted position, there will be evidence of similar wear patterns on diagonally opposite prongs, since they have been inserted in the same receptacle.

f. The meter removed from Sargota's residence was tested and found to be operating within allowable tolerances.

2. The meter reading of February 1982 indicated negative consumption, i.e., it was less than the January 1982 reading. While such an indication is sometimes due to a misread of the meter, in this case the March 1982 reading was still less than January, ruling out the possibility of a February misread. This indicates that either the meter was inverted for a substantial period of time during that period, or the meter had been otherwise tampered with.

3. The variation in electric usage was abnormal during much of the period of Sargota's residence, indicating probable meter tampering. For example, the monthly consumption increased from 317 kilowatt-hours (kWh) for the billing period ending July 20, 1981 to 2,084 for the next period ending August 19, 1981. Metzler believes that the latter consumption is normal for the Sargota residence of approximately 1,400 square feet, with air-conditioning and a swimming pool. He believes that the 317 kWh usage is not credible for a summer month.

4. Assuming 2,084 kWh (recorded usage between July 20, 1981 and August 19, 1981) for a normal untampered usage level, Metzler determined through a PG&E electric usage program that Sargota's annual consumption should be 17,509, or an average of about 1,459 kWh per month. The PG&E program calculates usage based on average monthly usage variations for similar residences in the area. The PG&E program determined that Sargota consumed $6,511.95 in unmetered electricity from March 4, 1980 to August 4, 1987. That is the amount in dispute in this case.

5. The prior occupant of the Sargota residence consumed 14,154 kWh during a 12-month period in 1978-1979, with an August 1978 usage of 2,233 kWh.

6. Sargota refused a payment schedule offered by Metzler on January 26, 1988, stating that he would write a letter to the Commission. At that time Metzler informed him that service would not be turned off for two weeks to allow him adequate time to

contact the Commission. Sargota's electric service was shut off three weeks later, at 11:04 a.m. on February 17, 1988. It was restored the same day as a result of a call from the Commission that Sargota was filing a complaint in the matter.

Discussion

In Decision (D.) 86-06-035, we clarified our function in resolving complaints about bills for unmetered energy:

> "The only questions that the Commission needs to answer to resolve these complaints...are 'Was energy used by the customer but not paid for?' and 'What is a reasonable estimate of the value of that energy under the applicable tariffs?' Identifying the person who performed the tampering or diversion is not a task that the Commission needs to undertake. Our sole purpose in resolving these complaints is to determine the value of the energy that can be shown to have been used by the customer but not metered or billed by the utility. Whether the customer or someone else actually performed the tampering or diversion does not affect the outcome at all; the customer is responsible for paying the value of any unmetered energy, regardless of whether the metering discrepancy resulted from tampering by the customer, tampering by a stranger, mechanical failure of the meter, or any other reason. Determining the identity and intentions of the person who performed the tampering or diversion is not pertinent to our proceedings and is an act which we have neither the resources nor desire to perform... Our only concern is that a customer who has received energy should pay what the applicable tariffs prescribe for that energy."

Sargota denies knowledge of any meter tampering or unmetered energy at his residence. The preceding quote from D.86-06-035 should clarify that our concern is not to determine who caused or had knowledge of such occurrences. Rather, our only concerns are to determine whether Sargota received the benefit of unmetered electricity; and a reasonable estimate of the value of that energy under the appropriate tariffs.

After reviewing the evidence, we are convinced the energy diversion occurred and Sargota benefited from unmetered energy. The fact that the meter was observed on an inverted position on July 20, 1987 is clear evidence of energy diversion. Additional physical evidence suggests that this energy diversion occurred over a long period of time:

1. The meter had lower readings in February and March 1982 than in January 1982, indicating that the meter was inverted for a significant period of time, in effect erasing more than two months' usage. We note that under the applicable tariffs, recovery is limited to three years. Although this occurred before that period, it is further significant evidence that meter tampering occurred during Sargota's occupancy.

2. Dust was visible on surfaces of the meter that face down when the meter is installed in its normal position. Dust should not settle on that surface if the meter remains in the normal position.

3. The meter seal was tampered with to allow it be removed and replaced. The seal consists of a wire with a crimped-on lead disc on one end. The seal is installed on a meter by threading the wire end through a hole in the meter lock ring, then through a hole in the lead disc, which is then crimped to the wire. This prevents removal of the seal without cutting the wire. The tampering on Sargota's meter consisted of drilling a hole in the lead disc to allow the wire to be removed and reinserted. Unless one looked very closely at the lead disc, or pulled on the wire, the tampered condition would not be apparent.

4. The screw that holds the lock ring on the meter was substantially worn, indicating repeated use. This screw normally is used only when a meter is changed. Since meters are not changed frequently, wear on the screw is minimal, absent tampering.

5. Wear patterns on the meter prongs indicate meter inversion. We are not convinced that the number of meter removals

and insertions can be reliably determined using PG&E's test bench. However, the wear patterns on opposite meter prongs indicate that the meter has been inverted numerous times.

The widely varying pattern of usage also strongly supports the contention of meter tampering, as Table 1 indicates.

Table 1

Billing Summary

Date	No. of Days In Billing Period	Usage kWh	kWh/day
8-19-84			
9-18-84	30	765	25.5
1-29-85	133	3,460	26.0
5-17-85	108	1,663	15.4
6-19-85	33	1,047	31.7
9-18-85	91	3,221	35.4
10-17-85	29	764	26.3
1-18-86	93	1,376	14.8
4-18-86	90	2,074	23.0
5-20-86	32	1,193	37.3
7-21-86	62	1,433	23.1
10-31-86	102	4,217	41.3
11-18-86	18	423	23.5
12-12-86	24	527	22.0
1-19-87	38	476	12.5
3-18-87	58	868	15.0
4-21-87	33	590	17.9
6-19-87	59	410	6.9
8-03-87	45	2,681	59.7
8-04-87	-	Meter change	-
8-19-87	15	681	45.4
9-18-87	30	2,587	86.2

The usage per day varies widely, even between adjacent billing periods. Most notable is the period leading into the summer of 1987 when the usage reaches a low of 6.9 kWh/day, then increases to 59.7 kWh/day. Usage that varies so dramatically from one period to the next is atypical, and is not explained by complainant. Moreover, complainant's usage increased sharply after a secured meter was installed on August 4, 1987.

The problem of estimating the value of the unbilled energy is often difficult. Our energy diversion guidelines, approved on November 7, 1986, call for the following information to be used in developing estimates of unmetered energy:

1. A minimum base measurement with an accurate meter of 30 days.

2. Consumption records for two years prior to the onset of energy diversion.

3. Average monthly consumption during the diversion period for the combined usage of five or more residences in the vicinity of the site of unauthorized use.

4. A list of connected load.

PG&E has submitted evidence on all four items.

Under Item 1, PG&E used a base period of July 20, 1981 to August 19, 1981 with a usage of 2,084 kWh. PG&E believes this is a period when no meter tampering occurred, since the usage during this period appears normal for the type residence and load. Since that period is substantially earlier than the three-year period allowed for backbilling, we must consider whether it is representative of Sargota's consumption during the backbilling period. Exhibit seven furnishes more recent readings taken on a secured replacement meter installed August 4, 1987. The readings for the 45-day period from August 5, 1987 to September 18, 1987 indicate a usage averaging 72.2 kWh per day, or 2,165 kWh for a 30-day month. The recorded usage from August 19, 1987 to September 18, 1987 was 2,587 kWh. Both recorded usages are higher than PG&E's assumed base period usage of 2,084 kWh per month. If we were to authorize backbilling using the 1987 base period, the amount billed would increase. However, since the 1981 base period usage is very close to the 1987 usage, we conclude that it is reasonable for PG&E to base the backbilling on the 1981 period.

The information furnished under Item 2 shows an annual usage of 14,154 in 1978-1979, and a high monthly usage of 2,233 kWh, by the prior occupant of Sargota's residence. Since the prior occupant was away much of the time in late 1979, the 12 month usage was determined by combining months from late 1978 and early 1979. Two full years usage are not available.

Under Item 3, the average annual usage in 1986 for the 252 to 255 customers on the same route as Sargota was 10,741 kWh. The highest average usage was 1,353 kWh in July. During the nearly three-year period of August 19, 1985 to August 3, 1989, Sargota's meter recorded a total of 27,188 kWh, or an average of 9,200 per year. This usage is unreasonably low, considering Sargota's load. We would expect Sargota's usage to significantly exceed, rather than be 14% below the route average.

Under Item 4, connected load for Sargota is typical except for the air-conditioning and swimming pool, which are not typical on his route. Those items would cause his expected usage to exceed the neighbors' average. PG&E's estimate of his annual usage at 17,511 kWh significantly exceeds the route annual average of 10,741 kWh, and the recorded high month for Sargota at 2,587 kWh also significantly exceeds the route average highest month at 1,353 kWh. The fact that Sargota's high month is nearly double the high month for the route, confirms the assumption that his normal usage significantly exceeds the average route usage.

We conclude that PG&E's estimate of Sargota's average annual usage at 17,511 kWh is reasonable for backbilling purposes. This estimate is based on a computer program that calculates a customer's usage by month based on a known base period. The other months' usage are based on the average usage variations for the area. We conclude that the program is logical and has produced credible results. Sargota's higher than average usage is clearly due in part to the central air-conditioning and swimming pool. Although the prior occupant's annual usage was lower than

Sargota's, the former's August 1978 usage of 2,233 kWh exceeds the base period usage of 2,084 assumed by PG&E. The August-September 1987 peak monthly usage at 2,587 kWh also exceeds PG&E's assumed base period usage. Both of these recorded usages confirm the reasonableness of using the 2,084 kWh for the base period.

In late-filed Exhibit 24, PG&E calculated a backbill for the three-year period August 19, 1984 to August 19, 1987. However, PG&E originally backbilled Sargota for the period March 4, 1980 to August 4, 1987. Since PG&E installed a new secured meter on August 4, 1987, and since there is no evidence of tampering with that meter, we see no reason to extend the backbilling period past August 4, 1987. We will authorize a backbilling period of August 19, 1984 to August 4, 1987, and reduce the calculated amount to correspond. The amount of backbill should be reduced from $2,635.87 to $2,630.87.

We will order PG&E to allow Sargota a reasonable amount of time to pay that bill.

We note that the Commission also stated the following regarding recovery of unmetered energy costs:

> "In establishing a three-year limitation for energy backbilling in complaints brought before us, we do not intend to limit in any manner a utility's ability to proceed with whatever civil and criminal remedies for unauthorized energy use it may possess. We encourage and expect the vigorous prosecution of such remedies without regard to the three-year backbill limit." (D.86-06-035, pp. 9 and 10a.)

We have considered Sargota's contention that he lost a construction job to build 12 homes due to his power being turned off by PG&E. The evidence indicates that Metzler warned Sargota on January 26, 1988 that PG&E would allow him two weeks to contact the Commission before terminating his electric service. On February 17, 1988, more than three weeks after the warning, PG&E did terminate. Sargota did not file this complaint until March 31,

1988. We conclude that PG&E properly terminated Sargota's service, and provided all necessary notice.

One other issue needs to be addressed in this case. The evidence shows that PG&E observed negative meter readings in two consecutive months early in 1982. Yet PG&E took no action to check out whether meter tampering had occurred, and in fact did not investigate the Sargota residence until 1987. PG&E has no valid explanation for this apparent oversight. In D.86-06-035 we stated, "We expect the management of the utilities to use the various available measures to reduce the amount of unmetered energy"; and we said that we would point out in individual cases what additional measures seem appropriate. The facts in this case lead to a recommendation. When negative readings are discovered, and are not explained by misreads, the customer's situation should be promptly investigated. If that had been done in this case, the problem could have been corrected in 1982 instead of 1987, and the amount of unmetered energy would have been dramatically reduced. In the future we expect PG&E to be diligent and promptly investigate matters of this type.

Findings of Fact

1. Sargota filed a complaint disputing an electric bill for $6,511.95 presented by PG&E for unmetered electricity delivered to Sargota's residence at 3235 East Ashlan Avenue in Fresno from March 4, 1980 to August 4, 1987. Sargota also alleges that he lost a job to build 12 homes since his answering machine could not operate when PG&E terminated his electric service.

2. Sargota has resided at the residence since approximately March 1980.

3. On July 20, 1987, the electric meter at Sargota's residence was observed in an inverted position.

4. On August 4, 1987 PG&E inspected the metering facilities at Sargota's house and replaced the meter.

5. The inside surfaces of the meter that normally face down had an accumulation of dust.

6. The meter seal had been altered to allow its removal.

7. The lock ring screw was substantially worn.

8. The meter prongs were substantially worn, with the cadmium plating worn through to the copper base metal in some areas.

9. The meter removed from Sargota's residence was tested and found to be operating within allowable tolerances.

10. The meter readings taken in February and March of 1982 indicated negative consumption, i.e.; the readings were lower than the January 1982 reading.

11. Sargota's recorded electric consumption varied substantially from period to period, averaging 9,290 kWh per year during the three-year period under consideration.

12. Sargota's electric consumption increased substantially after his meter was replaced with a secured meter.

Conclusions of Law

1. Sargota benefited from unmetered electricity from at least August 1984 through August 1987, and probably since March 1980.

2. It is reasonable to bill Sargota for unmetered electricity from August 19, 1984 to August 4, 1987 in the amount of $2,630.87.

3. PG&E should promptly check customer meters when consecutive readings indicate negative usage.

O R D E R

IT IS ORDERED that:

1. Pacific Gas and Electric Company (PG&E) shall bill Peter J. Sargota, Jr. (Sargota) for unmetered electricity from August 19, 1984 to August 4, 1987 in the amount $2,630.87.

2. Sargota shall pay the bill ordered herein for his consumption of unmetered electricity from August 19, 1984 to August 4, 1987.

3. PG&E shall allow Sargota a reasonable period of time to pay the bill. Interest may be charged on the unpaid balance at the rate of 7% per annum, compounded monthly, from the effective date of this decision.

4. Except to the extent granted, the complaint in Case 88-03-069 is denied.

This order becomes effective 30 days from today.

Dated AUG 3 1989, at San Francisco, California.

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

Commissioner Stanley W. Hulett, being necessarily absent, did not participate.

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

Victor Weisser, Executive Director

pc