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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

McCullough and Knight, dba B. A. Investments, Complainant, vs. Pacific Gas and Electric Company, Defendant.	Case 87-01-028 (Filed January 16, 1987)

J. Roland Wagner, for McCullough and Knight, complainant.
Howard V. Golub and Michelle L. Wilson, for Pacific Gas and Electric Company, defendant.

O P I N I O N

On January 16, 1987, McCullough and Knight, dba B. A. Investments (McCullough), filed Case (C.) 87-01-028, a billing complaint against Pacific Gas and Electric Company (PG&E). McCullough alleges that it was billed improperly for electrical usage at a property it owns in Napa, California during the 59 day period between February 24, 1986 and April 24, 1986. McCullough requests that the billing of $5,823.34 for 58,539 kilowatt-hours (kWh) be reduced to $968.30, the billing for the same period during the previous year.

A hearing was held in this case on November 23, 1987 before Administrative Law Judge (ALJ) Ford. McCullough presented testimony by witnesses Al Knight, owner of the property; and Kenneth L. B. Christian, an electrical contractor who inspected the property at Knight's request following the disputed billing. PG&E presented testimony by witnesses Robert Wambold, customer service

supervisor at PG&E; Melvin DeRoza, general foreman supervising overhead line crews in Napa at the time of the disputed billing; and William Scharschmidt, a senior meterman who tested the meter at the McCullough premises. Counsel for McCullough and PG&E also presented closing statements following the receipt of testimony.

McCullough contended that the billed usage is much higher than usage during other periods and further that the electrical system of the building could not have withstood the implied loads without detectable damage. McCullough suggested that fires and flooding could have caused the high billing or alternatively that the electric meter may be faulty. Evidence presented by McCullough and PG&E regarding each of these issues is summarized below.

Usage History at the Premises

McCullough's building, approximately 8000 square feet in size, was formerly a maintenance shed and is now divided into sixteen sections which are rented to tenants. The tenants are typically contractors who use the sections for storage, though some contractors work there and at least one section is used as a band practice room. Electrical usage is typically limited to lighting, drills, two three-phase compressors, miscellaneous electric hand tools, and band instruments and equipment.

The average daily electrical usage as billed between January 1984 and September 1987 and the vacancy rates are shown in Table 1. The disputed billing in April 1986 indicated an average daily usage of 992 kWh during the 59 day period.

A single entry in Table 1 for more than one month indicates a period when the meter was not read on a monthly basis. Wambold explained that bills were not issued monthly to McCullough because the section of the building where the meter is located is often locked, and that access for meter reading has been a problem ever since McCullough became the customer of record in August 1984. On a number of occasions, PG&E called Knight and arranged for him to meet a meter reader on the premises to obtain a meter reading.

TABLE 1

Average Daily Electricity Usage Billed
and Vacancy Rate at McCullough Premises

Months	Average KWh/day	No. of Sections Vacant
10/83 - 1/84	122	N/A
2-84 - 3/84	133	N/A
4/84 - 6/84	N/A	N/A
7/84	134	N/A
8/84	163	N/A
9/84	163	N/A
10/84 - 11/84	174	N/A
12/84 - 6/85	142	1 Vacant-Full
7/85	77	Full
8/85	81	Full
9/85	95	Full
10/85	124	Full
11/85 - 2/86	14	1 Vacant-Full
3/86 - 4/86	992	Full
5/86	226	1 Vacant
6/86	186	1 Vacant
7/86	158	2 Vacant
8/86	172	2 Vacant
9/86 - 2/87	155	4-6 Vacant
3/87 - 5/87	72	3-7 Vacant
6/87 - 9/87	23	3-4 Vacant

PG&E's witness Wambold testified that McCullough's meter was reread on May 21, 1986 following an inquiry from McCullough regarding the high billing, and that the rereading confirmed the meter reading leading to the complaint. Because the previous bill reading in February 1986, which covered a four month period, showed excessively low usage, PG&E determined that that reading had quite possibly been incorrect and that some of the usage billed in April 1986 probably should have been included in the February 1986 billing. As a result, PG&E recalculated McCullough's billing by spreading the total usage billed in February and April evenly throughout the six month period. Since this moved some of the usage previously billed in April 1986 into a period when rates had been lower, PG&E credited McCullough's account for $60.24 to reflect the lower rates.

Wambold also testified that PG&E asked for Knight's cooperation in performing a load check at the building after Knight disputed the April 1986 billing, but that Knight did not provide the needed access. It was Wambold's recollection that Knight was having some problems with the tenant where the meter was located and that, while Knight might have had a key to that tenant's stall, he did not want to enter it without that tenant present due to the landlord/tenant problems.

Spreading the February 1986 and March 1986 billings evenly throughout the six month period would indicate an average daily usage of 331 kWh. Comparison with the usage patterns in Table 1 shows that this level is still significantly higher than usage during any other period. PG&E put forth several possible reasons why such high usage might have occurred. Wambold noted that this was a winter period when most consumers normally show higher than average energy consumption. Wambold further testified that Knight had told him that perhaps the problem tenant had intentionally grounded the service to cause the meter to run. Wambold also speculated that perhaps tenants had used excess

electricity to dry things out after flooding which occurred in the area in February 1986.

On the other hand, Knight testified that after he received the high billing in April 1986, he checked the electrical system in the building and also hired Christian to check the property, and that neither inspection showed any irregularities. Knight also asked the tenants about any unusual usage that might have occurred, and did not discover any.

Ability of Electrical System to Withstand Indicated Loads

Both McCullough and PG&E presented testimony regarding the loads indicated by the high billing and the ability of the building's 200 ampere (amp) electrical system to carry such loads without damage.

Christian testified that the rendered billing would indicate an average load of 179 amps throughout the 59 day period, and that McCullough's electrical system would not carry a load this high without detectable damage to portions of the electrical system or to nearby wood. He testified that he had inspected the electrical system thoroughly and found no such damage.

PG&E pointed out that Christian assumed a line voltage of 230 volts and further a load that was all single phase, and took issue with both assumptions. DeRoza testified that the line voltage at McCullough's building is approximately 244 or 245 volts based on the distance from the substation; Scharschmidt testified similarly that the meter test he performed in October 1986 showed 245 volts.

Scharschmidt testified that in order to properly assess the amp load at McCullough's premises, both the three phase load (e.g., motors) and the single phase load (e.g., lights) should be accounted for. Absent information regarding the correct combination of single phase and three phase load, PG&E could only determine that averaging the usage billed in April 1986 over 59 days would indicate an average load somewhere between 97 amps

(assuming all three phase load) and 168 amps (assuming all single phase load). He stated that the result of 168 amps corresponds to Christian's result of 179 amps, with the only difference being the voltage assumed. He concluded that McCullough's system would be capable of handling a 97 amp load, but did not testify regarding the ability of the system to withstand a 168 amp load.

Scharschmidt also presented an analysis of average amp loads if, as PG&E surmises, the February 1986 meter reading was incorrect and the usage was actually spread over a six month period. He estimated that average load in that situation would be between 32 amps and 56 amps depending on the mix of three phase and single phase loads, and testified that Knight's facility could handle loads in this range without damage.

Christian responded that McCullough's electrical system would not hold up under the 97 amp load calculated by PG&E without showing damage. He also presented rebuttal testimony that his use of 230 volts was based on a test which he performed which showed 232 volts and a statement by a PG&E meter man that he also measured 230 volts.

Accuracy of McCullough's Meter

Scharschmidt described two meter tests performed on McCullough's meter in May 1986 and October 1986 following the disputed billing which indicated that the meter was functioning properly and registering accurately. He testified that the tests were standard meter tests used to test meter accuracy in high billing cases. According to him, such meter tests reliably reflect the accuracy of the meter up to the time of the test; that is, if the meter tests accurately, one can be assured that the meter had functioned properly at all times prior to the test.

Each test took approximately 15 minutes, and Knight testified that he requested a longer test with a time graph but that PG&E had not performed such a test. Scharschmidt responded that the type of test which Knight requested is used in cases of

voltage complaints to test for voltage surges and dips on a line. It does not test the meter's accuracy and in fact does not even use the customer's meter.

There was also discussion regarding factors which might affect a meter reading. Scharschmidt testified that surges such as would be detected by the test requested by Knight would not affect a meter's reading. It was his opinion that nothing other than tampering would cause a meter to speed up, though mechanical friction due for example to worn out gears or dirt on the disc can slow a meter down.

On the other hand, Christian contended that surges and the voltage level can affect meter readings. He testified that too low a voltage can raise the reading and too high a voltage can lower the reading. He recited a situation in which he was present when PG&E "dropped a high voltage line across the secondary" and "blew the meter out of the socket." According to Christian, a PG&E meter reader picked up the meter and said, "[O]h, my God, I hope I don't have to show this to the customer. He'd die if he had to pay this."

Possible Effects of Flooding and Fires

McCullough pointed to fires and extensive flooding in the neighborhood of its building in the period of February to April of 1986 as a possible reason for the extraordinary billing. Christian testified that such flooding could cause a ground and excess electricity usage. However, he did not believe that had occurred since his inspection showed no indications that any of the wiring had been under water nor any detectable damage. In his opinion it is very unlikely that a ground would cause usage at the level shown without damage. On the other hand, he believed that voltage surges such as occurred during that time could explain a high meter reading such as experienced by McCullough.

PG&E denied that the flooding, fires, or voltage surges caused either damage to McCullough's meter or high meter readings.

DeRoza testified that flood-related outages in certain areas including McCullough's premises were initiated by PG&E at the request of the fire and police departments to allow safe access for fire and police protection. He testified that there were other outages as a result of damage to PG&E's equipment and some problems restarting service in parts of Napa, but that no such outages or problems occurred on the circuit serving McCullough's building. DeRoza testified that had a voltage surge occurred, it would have damaged electrical equipment and would have affected all customers served from the same transformer. According to DeRoza, none of McCullough's tenants nor any of the other customers served from the transformer serving McCullough's building reported any damage to electrical equipment during that time. Wambold similarly testified that he had checked the records of the ten or eleven other customers served from McCullough's transformer and that none of them showed high billing problems during the period in question.

Knight disputed PG&E's testimony regarding the transformer serving the McCullough property. According to Knight, the transformer bank that serves his property is at the very corner of the building and only serves his building and one other building.

In rebuttal testimony, Wambold reiterated his position regarding the transformer serving McCullough's property. He stated that he had reviewed PG&E's records during the week prior to the hearing. While Wambold was not familiar with the transformer which Knight testified is adjacent to the McCullough property, he was sure that it is not the one which serves McCullough.

Responsibility for Unexplained Usage

The record shows that McCullough and PG&E agreed that the high usage levels indicated in March 1986 billing have not been satisfactorily explained. They disagreed, however, on McCullough's liability for the resulting bill.

PG&E argued that in a complaint case contesting a high billing, the burden falls on the complainant to prove that the usage reflected by the billing was not consumed by him and that he should not be liable for it. PG&E's counsel quoted from Commission Decision (D.) 92577, in which the Commission noted that:

> "In such proceedings, it would not be wise or practical policy to require the utility to prove, through whatever devices, that a customer actually did or did not use the energy registered on his meter. To expect a utility to determine the amount of energy used as well as the manner in which it was used would require an unacceptable intrusion into the lives of its customers."

Wambold quoted Section E of PG&E's Electric Rule No. 16, which provides that the customer is "solely responsible for the transmission and delivery of all electric energy over or through his wires and equipment." PG&E's position is that facilities and usage beyond the meter are the customer's responsibility. If a meter tests to be accurate, PG&E assumes that the energy was consumed through that meter. While PG&E will help the customer to try to determine where the usage occurred, its position is that such usage is the customer's responsibility. PG&E argued that even if a tenant intentionally created a ground in order to increase consumption, as was suggested in this case, McCullough must pay for the additional usage under PG&E's tariffs.

PG&E's counsel also cited another Commission case in a situation similar to the one at hand. In D.83-07-006, the Commission accepted an adjustment for a meter reading error which spread the disputed usage over a longer period, and concluded in that case:

> "While neither party to this dispute could reasonably account for the two months of high gas bills charged to complainant, the evidence is clear that the meter on the premises was accurate and that no additional load other than complainant's appliances were on the gas line. In those circumstances, we are compelled to

> conclude that the high use complained of must have in fact occurred. The complainant has failed to meet his burden of proof otherwise. It is the duty of defendant to charge and collect for all energy used as provided in its tariffs."

PG&E concluded that McCullough's request for relief should be denied and McCullough should be ordered to pay PG&E the full amount in dispute.

McCullough argued that PG&E's assumption of a meter reading error is an error of convenience because McCullough's premises could not have used the billed amount of electricity and PG&E has no other explanation for what happened. McCullough contended that there is only one reasonable explanation for the error, and that is that the meter malfunctioned for unknown reasons. According to McCullough, failure to establish what went wrong with the meter is not a reason to require that it pay the billed amount. McCullough concluded that the bill should be reduced to a level reflecting past usage patterns.

Discussion

As PG&E has suggested, the burden is on McCullough as the complainant to establish that the billed amount of electricity was not consumed on its premises. The evidence presented in this case must be viewed in this light.

In reviewing McCullough's electricity usage patterns, we note that the usage billed in February 1986 would indicate average daily usage much lower, generally at least by a factor of ten, than during any other period when the building was full or almost full. Because of this, we agree with PG&E's conclusion that the February 1986 billing was probably inaccurate. Combining the February 1986 and April 1986 billings indicates an average daily usage over the six month period of 331 kWh, compared to the initial billing level of 992 kWh per day for a 59 day period.

McCullough contended that the electrical system in its building could not have withstood the amp loads resulting if the

billed 58,539 kWh were consumed during 59 days. However, McCullough did not contest PG&E's conclusion that the loads implied if the usage were spread over six months could have occurred without damage. Since the February 1986 billing was almost certainly incorrect and there is no evidence that the electrical system could not have handled the load if it occurred over six months, the lack of damage to McCullough's electrical system does not assist us in determining whether the billed usage occurred.

McCullough suggested that service problems stemming from floods in the area in February 1986 could have caused the high billing, either by a ground caused by flooding or by a voltage surge. McCullough's own witness testified, however, that there was no indication either of wires being under water or of damage such as he would expect had a ground sufficient to cause the metered high usage levels indeed occurred. McCullough and PG&E disagreed about the possibility of a voltage surge creating the billing problem. Additionally, there was no evidence of damage to electrical equipment such as would be expected if a significant voltage surge had occurred. Because there was no damage, we find the testimony of PG&E's expert witness more convincing, and conclude that a voltage surge did not cause the high meter reading.

McCullough also argued that the meter could have been faulty. However, two meter tests by two different PG&E meter readers showed that the meter was functioning properly. Since McCullough introduced no evidence that the tests were flawed, we conclude that the meter was accurate during the period in question.

McCullough has failed to establish that PG&E service problems or equipment failures caused the high billing in question or that its electrical system could not have handled the implied loads. While the total usage billed between November 1985 and April 1986 was unquestionably higher than normal, it is plausible given factors such as the time of year and the fact that the building was occupied near capacity. The only evidence McCullough has provided to the contrary is anecdotal and speculative and is

not sufficient to meet its burden of proof to show that the billed customer usage did not occur. To the contrary, the convincing evidence that the meter was accurate, that PG&E service problems did not contribute to the high usage, and that the billed usage could plausibly have been used on McCullough's premises lead us to conclude that the billed electricity was used and that McCullough should be responsible for this usage. Therefore, McCullough's request for relief is denied. McCullough should pay PG&E the full amount in dispute.

Findings of Fact

1. McCullough was billed $5,823.34 for 58,539 kWh for the 59 day period between February 24, 1986 and April 24, 1986, indicating an average daily usage of 992 kWh.

2. McCullough's February 1986 billing indicated an average daily usage of 14 kWh.

3. Spreading the February 1986 and April 1986 billings evenly throughout the six month period would indicate an average daily usage of 331 kWh, still significantly higher than usage in other periods.

4. PG&E performed two meter tests on McCullough's meter which indicated the meter was functioning properly and registering accurately.

5. The average amp load resulting if the billed electricity were consumed during 59 days would be between 97 amps and 179 amps, depending on the line voltage and the mix between single phase and three phase loads.

6. The average amp load if the electricity billed in February 1986 and April 1986 were spread throughout the six month period would be between 32 amps and 56 amps if the line voltage is 245 volts.

7. McCullough did not contest PG&E's conclusion that the loads implied if the billed usage were spread over six months could have occurred without damage.

8. Christian testified that there was no indication either of wires being under water or of damage such as he would expect had a ground sufficient to cause the metered high usage levels indeed occurred.

9. There was no evidence of damage to electrical equipment such as would be expected if a significant voltage surge had occurred.

10. McCullough's meter was accurate during the period in question.

11. The total usage billed between November 1985 and April 1986 is plausible given the time of year and the fact that the building was occupied near capacity.

12. The billed electricity was used on McCullough's premises.

13. Section E of PG&E's Electric Rule No. 16 states that the customer is "solely responsible for the transmission and delivery of all electric energy over or through his wires and equipment."

Conclusions of Law

1. McCullough as the complainant has the burden of proof to show that the billed amount of electricity was not consumed on its premises.

2. McCullough did not meet its burden of proof.

3. Customers are responsible under PG&E's tariffs for electricity usage which occurs on their side of their meters.

4. McCullough's request for relief should be denied, and McCullough should pay PG&E the full amount in dispute.

O R D E R

IT IS ORDERED that the relief requested by McCullough and Knight, dba B. A. Investments, is denied.

This order becomes effective 30 days from today.

Dated APR 27 1988 at San Francisco, California.

STANLEY W. HULETT
President
DONALD VIAL
FREDERICK R. DUDA
C. MITCHELL WILK
JOHN B. OHANIAN
Commissioners

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

Victor Weisser, Executive Director