

ORIGINAL

Decision 83 02 043 FEB 16 1983

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Steven S. Austin and)
 Catherine M. Austin,)
)
 Complainants,)
)
 vs.)
)
 San Diego Gas & Electric)
 Company,)
)
 Defendant.)

Case 11024
(Filed September 2, 1981)

Stahl and Leonard, by Sharyn M. Leonard,
Attorney at Law, for complainant.
Maya Sanchez, Attorney at Law, for defendant.

O P I N I O N

Complainants Steven S. Austin and Catherine M. Austin allege that their electric bills for the period July 1980 through April 1981 are excessive because of low voltage delivered to them by defendant San Diego Gas & Electric Company and seek an order requiring defendant to reimburse them 50% of their electric bills for the period in question.

A duly noticed hearing was held before Administrative Law Judge N. R. Johnson in San Diego on November 18, 1982, and the matter was submitted. Testimony was presented on behalf of complainants by themselves and on behalf of defendant by a repairman from RCA Service Company, Thomas Greany, by the owner of All Brands Appliance Company, Steve Limber, by two of its electricians, Lester V. Davis and Paul D. Sexton, by one of its

meter testers, Michael Quinn, and by one of its customer service representatives, Darlene Larsen.

I - POSITION OF COMPLAINANTS

Testimony, exhibits, and argument presented on behalf of complainants indicated that:

1. Their microwave oven was operating improperly due to low voltage.
2. Other low voltage indications experienced were flickering lights, excessively prolonged operation of the electric dryer, and the failure of the TV set to "lock-in" the picture.
3. A representative of defendant, Darlene Larsen, called at the premises in response to a high bill complaint and recommended replacement of complainants' 16-year-old refrigerator.
4. Acting on the advice of Darlene Larsen, complainants purchased a \$600 energy-efficient Whirlpool refrigerator in August 1980.
5. The new refrigerator ran constantly rather than cycle on and off as would normally be expected.
6. In December 1980 an appliance repairman, Steve Limber, informed complainants that their microwave oven had a cracked plate, a burned out tube, and an improperly closing door. He stated that the voltage at the microwave oven outlet was 109 volts and this low voltage was possibly the reason the tube had burned out.
7. Defendant performed two energy audits at complainants' house and found the house to be energy-efficient.

8. Starting in February 1981 complainants took the following measures to reduce their electric consumption:
 - a. Used kerosene lamps in place of electric lights in all rooms, except the family room which had a 25-watt light and their little girl's room which had a 15-watt bulb.
 - b. Washed all their clothes by hand and hung them up to dry to avoid the use of their washing machine and clothes dryer.
9. The dryer was used infrequently. When used, however, it took an hour and one-half to dry a load that normally took 20 minutes.
10. On March 3, 1981 four of defendant's customer representatives and a representative from Senator Mills' office were on the premises but were unable to account for the high consumption of electric energy.
11. On March 11, 1981 defendant's representative visited the premises to remove a check meter from the refrigerator and refused to answer questions posed by a TV Channel 8 newsman.
12. In March or April 1981 some of defendant's workmen were working on the transformer vault serving the premises. After they left, complainants' and their neighbor's electric bill decreased drastically.
13. Complainants have a five-year-old daughter and twins born in July 1980.
14. The house was built in 1967.
15. Complainants' heated water bed was turned down from 75 degrees to 40 degrees in July 1980, subsequently turned off, and finally unplugged in March 1981.

16. In January 1981 low voltage of 109 volts was found by one of defendant's employees at both the service entrance and appliance outlets. The employee stated that the matter would be reported to his supervisor but as far as complainants can tell, this was not done.
17. Mr. Austin tested the voltage at the family room outlets in December 1979 and found it to be 114 volts in the morning, afternoon, and at 1 a.m.
18. A fellow employee of Mr. Austin, a State-qualified electrician, found the voltage to be 112 volts at the meter box and at the family room outlets in December 1980.
19. Complainants' average bill from July 1980 through April 1981 was \$53 a month as compared to a previous average of \$26.35 a month and a subsequent average of \$23.91 a month.

II - POSITION OF DEFENDANT

Testimony, exhibits, and argument presented on behalf of defendant indicated that:

1. On February 27, 1981 the voltage at the refrigerator was found to be 117 volts.
2. The temperature in the food compartment of complainants' refrigerator was found to be 30 degrees indicating an overoperation of the refrigerator due to a faulty thermostat.
3. The faulty thermostat was replaced on February 27, 1981 and the replacement thermostat was replaced on March 2, 1981.
4. The refrigerator was drawing 3.4 amperes (approximately 0.4 kilowatts (kW)) when operating.
5. When low voltage is found at an appliance, it is customary for the repairman to suggest the appliance owner contact the utility.

6. Voltage charts taken at complainants' premises on February 23 and 24, 1981 indicated a range of voltage at the meter from 116 to 120 volts.
7. Voltage charts taken at complainants' premises from February 23 to March 3, 1982 indicated a voltage range of from 117 to 119 volts.
8. Defendant's serviceman's meters are calibrated monthly so are very accurate.
9. Complainants' meter was tested on March 3, 1981 and found to be operating within the allowable limits of accuracy.
10. Complainants' 16-year-old refrigerator had rust spots from condensation indicating faulty seals and loss of cold air.

III - DISCUSSION

General

From the record in this proceeding it appears that the component parts of the controversy are as follows:

1. The accuracy of the electric meter;
2. The voltage level of complainants' service;
3. Complainants' appliance operations; and
4. Complainants' consumption history.

Meter Accuracy

The meter was tested in March 1981 and was found to be operating at 0.75% fast, well within the prescribed limits of accuracy. Consequently, it is obvious that the electrical energy for which complainants were billed was actually consumed on the premises. The meter was adjusted and left operating 0.15% slow.

Voltage Level

The voltage level was ascertained at complainants' premises a number of times as follows:

1. On December 2, 1980 it was tested by Steve Limber of All Brands Appliance Company and found to be 109 volts at the microwave oven, in the family room, and in the living room.
2. An unidentified employee of defendant checked the voltage during the first two weeks of January 1981 and found the voltage to be 109 or 110 volts at the service entrance, master bedroom, and family room.
3. A recording voltmeter was set on complainants' premises by one of defendant's electricians, L. V. Davis, on February 23, 1981 and removed on February 24, 1981, and the voltage during that period varied between 115 and 118 volts at the meter.
4. On March 4, 1981 the voltage was checked by a technician of RCA Service Company, Thomas Greany, and found to be 117 volts at the back of the refrigerator.
5. A State-qualified electrician tested the voltage at complainants' premises in December 1980 and found it to be 112 volts at both the meter box and in the family room.
6. Mr. Austin tested the voltage in December 1979 and found it to be about 114 volts at the family room outlets in the morning, afternoon, and at 1 a.m.
7. Recording voltmeter charts were installed at complainants' meter box by defendant's electricians, Davis and Harris, for the period February 23 through March 3, 1982 and the voltage was found to range between 116 and 120 volts.

8. A recording voltmeter was set at complainants' meter box by one of defendant's electricians, P. D. Sexton, for the period June 28 to July 30, 1982 and the voltage was found to range between 115 and 118 volts.

The period during which complainants dispute the billing is from July 1980 through April 1981. Consequently, it is not necessary for us to consider the voltage levels outside that specific period other than to note that the recorded voltages in 1982 appear to be well within the prescribed limits.

Defendant argues that the voltage delivered at the meter is within the satisfactory range and any low voltage experienced by complainants is due to excessive drop within the house which is the sole responsibility of complainants. However, the record does not support this contention inasmuch as two tests taken in December 1980 and January 1981 indicated the same voltage at the service entrance as at the house outlets. From these tests it is reasonable to assume that the house wiring is adequate and the voltage drop within the house is negligible.

Voltage checks taken in December 1980 revealed voltages of 109 to 112 to 114 volts. It is quite possible that all readings taken were accurate and the variations were due to differences in facility loadings. It is noted that December is a month of very heavy residential usage and it could well be that the low voltage readings were taken during the periods of heavy usage when complainants' facilities were fully loaded. Such heavy loading is for limited time periods and if the low voltage was due to such heavy loading, the voltage during the periods of lighter loading would be somewhat higher. Such periods of relatively light loading would also include the other months for the period in question. Such a conclusion is supported by the adequate voltage

levels found by tests by Mr. Austin in December 1979 (114 volts) and by defendant in February 1981 (115-118 volts). In any event, the record does not support complainants' contention that defendant was supplying inadequate voltage during the period July 1980 through April 1981.

Complainants' Appliances

According to the record, defendant's representative believed that one of the major causes of complainants' relatively high bills in July and August 1980 was the defective operation of their 16-year-old refrigerator. Condensation and rust found around the refrigerator door was an indication that the refrigerator door was not sealing properly. The escaping cold air resulting from such an improper seal would cause the refrigerator to operate excessively and thereby substantially increase complainants' electric bill. Such excessive refrigerator operation would be more pronounced during periods of hot weather and/or periods of frequent opening and closing of the refrigerator door. The fact that complainants' increased consumption occurred during the hot summer months of July and August supports an assumption that the major portion of the increase was due to the faulty sealing of the refrigerator door.

This older refrigerator was replaced with a Whirlpool energy-efficient refrigerator in August 1980. According to the record, complainants noticed that the refrigerator was operating excessively but were assured that such operation was normal during the breaking-in period. However, according to the record, such continuous operation did not abate so in February 1981, complainants called an RCA serviceman. On February 27, 1981 the serviceman found the food compartment temperature to be below freezing,

indicating excessive operation of the refrigerator and necessitating the replacement of the thermostat. In response to another trouble report by complainants, he made a subsequent call to the premises on March 4, 1981 and found a similar situation necessitating the replacement of the second thermostat. During a subsequent service call on March 12, 1981 he found the refrigerator to be operating normally. The current drawn by the refrigerator was found to be 3.4 amperes which is equivalent to a power consumption of approximately 0.4 kW.

The third appliance with which complainants experienced trouble was the microwave oven. The problem experienced was improper cooking of the food. Sometimes it was burned and at other times food was cooked on the outside and raw on the inside. The serviceman found the door was not closing properly and the tube was burned out. The serviceman found low voltage at the time and informed complainants that possibly the additional loading on the microwave caused by low voltage could have caused the tube to burn out. It should be noted, however, that an improperly closing door would also cause the oven to work overtime and could also cause the tube to burn out. In any event, the microwave oven operated properly after its repairs.

Consumption History

A review of complainants' billing history (Exhibit 2A) shows the following consumption:

<u>1979-80</u>		<u>1980-81</u>		<u>1981-82</u>	
<u>Date</u>	<u>kWh</u>	<u>Date</u>	<u>kWh</u>	<u>Date</u>	<u>kWh</u>
7-19-79	415	7-18-80*	532	7-21-81	303
8-17-79	377	8-18-80*	606	8-19-81	260
9-18-79	454	9-17-80*	502	9-18-81	318
10-18-79	366	10-17-80*	466	10-20-81	314
11-19-79	464	11-18-80*	516	11-19-81	265
12-19-79	439	12-12-80*	581	12-21-81	277
1-21-80	479	1-20-81*	683	1-21-82	388
2-20-80	457	2-20-81*	669	2-22-82	335
3-20-80	420	3-23-81*	508	3-23-82	266
4-18-80	420	4-21-81*	300	4-21-82	293
5-19-80	482	5-20-81	220	5-20-82	300
6-18-80	453	6-19-81	317	6-21-82	295

*Disputed period

It will be noted that the largest increase over a similar period for the previous year occurred for the period ending August 18, 1980. This billing period coincides with the hot weather and the first billing period reflecting the birth of complainants' twins in July 1980. The 229 kilowatt-hour (kWh) increase over the previous year's consumption does not appear excessive when consideration is given to: (a) the high usage of the refrigerator caused by cold air escaping through the improperly sealing refrigerator door during the hot summer months; (b) the increased usage of complainants' washing machine and dryer caused by the birth of complainants' twins in July 1980; and (c) the relatively low consumption recorded for the billing period ending August 17, 1979.

The next greatest increase over the previous year's similar billing periods was for the periods ending January 20, 1981 and February 20, 1981. These periods coincide with the time complainants were experiencing trouble with their new Whirlpool refrigerator. When operating, the refrigerator's power usage is approximately 0.4 kWh per hour. Assuming a normal operating cycle of one-third on and two-thirds off, an average monthly consumption of electrical energy of approximately 96 kWh would be expected which conforms to the refrigerator's operating specifications. However, if, as apparently happened, the refrigerator runs continuously due to a defective thermostat, a consumption of 288 kWh a month, or 192 kWh a month above normal, could be experienced. It is obvious that such operation of the refrigerator accounts for most of the increase experienced by complainants for the billing periods ending January 20, 1981 and February 20, 1981.

According to the record, complainants began effecting most of their energy conservation efforts such as using kerosene lights, washing by hand, and not heating the house in February 1981. Such conservation efforts were first reflected in the March 1981 billing period and were very pronounced in the April 1981 billing period, the first full billing month after the refrigerator was repaired. Apparently, complainants' conservation efforts are fruitful as evidenced by the consumption for the 1981-82 billing periods being substantially less than for the same periods for the 1979-80 period in spite of the increased family size.

Inasmuch as the increased billings forming the bases for this complaint reflect increased usage caused by faulty appliances rather than deficient utility equipment and in light of the meter test indicating an accurate meter, there is no basis for adjusting complainants' billing.

IV - FINDINGS AND CONCLUSIONS

Findings of Fact

1. Complainants' electric meter was tested in March 1981 and found to be operating within the prescribed limits of accuracy.
2. The electrical energy for which complainants were billed was actually consumed on the premises.
3. The voltage drop between defendant's service entrance cables and complainants' electric outlets is negligible.
4. In general, the voltage level supplied complainants by defendant was at an acceptable level for the period July 1980 through April 1981 in spite of several instances of low voltage noted in December 1979.
5. The major portion of the substantial increase in complainants' July and August 1979 electric bills was due to the excessive operation of their 16-year-old refrigerator during these two hot summer months caused by the faulty sealing of the refrigerator door.
6. Complainants' Whirlpool refrigerator was found to be freezing the food in the food compartment indicating excessive operation and necessitating the replacement of the thermostat on two different occasions.

7. Complainants' increased electrical energy consumption for the billing period ending August 18, 1980 relative to the usage for the period ending August 17, 1979 does not appear excessive when consideration is given to the increased usage of their refrigerator during the hot summer months, the increased usage of the washing machine and electric dryer due to the birth of their twins in July 1980, and the relatively low consumption recorded for the billing period ending August 17, 1979.

8. Complainants' increased consumption over the previous year's similar billing periods for the periods ending January 20, 1981 and February 20, 1981 was caused primarily by the excessive operation of their Whirlpool refrigerator due to faulty thermostats.

Conclusion of Law

The relief requested by complainants should be denied.

O R D E R

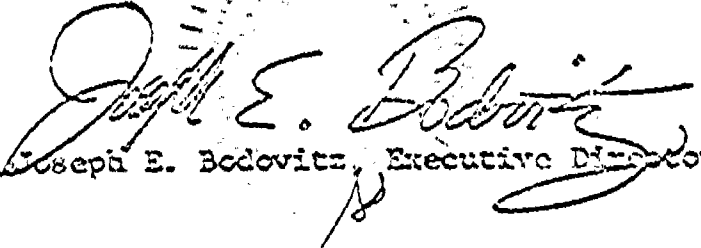
IT IS ORDERED that the relief requested is denied.

This order becomes effective 30 days from today.

Dated FEB 16 1983, at San Francisco, California.

LEONARD M. GRIMES, JR.
President
VICTOR CALVO
PRISCILLA C. GREW
DONALD VIAL
Commissioners

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


-13- Joseph E. Bodovitz, Executive Director