ALJ/BDP/tcg

Decision 87 11 049 NOV 2 5 1987 BEFORE THE PUBLIC UTILITIES COMMISSION OF THE ORNIA ROBERT JOE BROWN,

Complainant,

vs.

Case 86-05-015 (Filed May 12, 1986)

PACIFIC GAS AND ELECTRIC COMPANY,

Defendant.

Messrs. Siegel, Friedman & Yee, by <u>Alan</u> <u>Yee</u>, Attorney at Law, for Robert Brown, complainant. <u>Howard V. Golub</u>, Lindsey How-Downing, and Michelle L. Wilson, Attorneys at Law,

for Pacific Gas and Electric Company, defendant.

<u>OPINION</u>

Complainant Robert Joe Brown (complainant) is contesting a retroactive bill of \$5,816.50 rendered by Pacific Gas and Electric Company (PG&E) for unmetered gas and electrical energy used by, but not previously billed to, complainant due to alleged meter tampering. The bill is for the period December 11, 1974 to July 20, 1984. Hearing was held in San Francisco on April 24, 1987.

Complainant denies tampering with PG&E's electric and gas meters. He argues that if there was tampering, then such tampering was recent. He contends that it cannot be assumed that energy used was not billed. He notes that there is no major change in consumption over the ten-year period in dispute. Therefore, he takes exception to PG&E's estimate of monthly consumption and notes that these figures are nearly double those originally billed.

Complainant testified that his house is "double insulated." It is unoccupied during the day. He burns wood in the fireplace at all times for heating in the winter. He completed the addition of a swimming pool in December 1980. He stated that gas is not used to heat the pool since it has a "solar cover." The pool has an electric filter pump which operates every day.

Lastly, complainant argues that consistent with Public Utilities (PU) Code Section 737 and Decision (D.) 86-06-035, PG&E's billing, going back nearly ten years, is contrary to the Commission's policy which limits backbilling to three years.

PG&E's testimony was presented by Elwood T. Elder, a revenue protection representative. He testified that while investigating metering irregularities at the house of complainant's neighbor, he noted signs of tampering at complainant's meters too. Therefore, he returned on July 20, 1984 and replaced complainant's meters with new ones. He produced the original meters at the hearing and explained the basis for his conclusion that the meters had been repeatedly tampered with over an extended period of time.

With regard to the electric meter, PG&E's witness noted that both external and internal seals had been broken to gain access to the internal mechanism. When he arrived to remove the meter, he found that the external seal wire had been cut and left in place to give the appearance that the seal was intact. According to the witness, the wear marks visible on the seal disc are the result of the seal being loosened and put back together numerous times. He noted the full-load adjustment, light-load adjustment, upper bearing support-adjustment, and the lower bearing support adjustment, all had screws with heads that were marred and scratched from repeated adjustment. According to the witness, the objective of these adjustments was to increase the drag on the meter disc so that it recorded less consumption. Commenting on the stainless steel locking ring that secures the meter to the house panel, the witness stated that the numerous scratch marks visible

on the polished internal surface at the open end of the ring was the result of repeated removal of the transparent dome cover to gain access to the internal mechanism.

With regard to the gas meter, PG&E's witness pointed out that the seals were broken and a hole had been drilled in one of the seals so that the seal wire could be reinserted to give the appearance that the seal was intact. He noted that the heads of the screws securing the meter register were scratched and marred, just like the screws on the electric meter. One internal screw that secured the register was missing and it was not found inside the meter. It was the witness's opinion that the condition of the meter register screws, which were all found to be only "hand tight," was the result of repeated removal of the register. He explained that when the register is removed it can be manually clocked-back; also, without the register the meter delivers gas but there is no measurement of the delivery.

PG&E's records show that both meters were new when installed at the time complainant took service. According to PG&E, the meters were not repaired or replaced during the period in dispute. The witness stated that new meters are tested for accuracy when received from the factory, but no speed adjustments are made by PG&E personnel in the field.

With regard to the accuracy of the meters that were removed from complainant's house, PG&E's witness stated that when tested in PG&E's meter shop, the electric meter would not record any consumption on light load; on heavy load the meter was 45.6% slow. The gas meter tested within the limits of accuracy. According to the witness, this was to be expected since tampering of the gas meter was limited to removal of the register.

Explaining his estimate of electric consumption for the ten-year period, PG&E's witness stated that he increased all recorded monthly usage figures by 45.6% to correct for the meter

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test result. On this basis the additional amount billed for electric usage was \$1,901.73.

As support for the reasonableness of his estimate of electric usage, PG&E's witness noted that his approach favors complainant because the 45.6% correction does not account for any of the usage that the meter did not record when load was light. He further noted that when he arrived to change meters, complainant's pool filter pump was running but the electric meter was not recording any usage. On replacing the meter, the new meter indicated a load of 3.2 kilowatts (kW); in a 2-hour 40-minute period, the new meter recorded usage of 8.0 kilowatt-hour (kWh). Further, according to the witness, his estimate of monthly electric usage is close to complainant's present usage.

PG&E's witness testified that complainant's appliance load includes a refrigerator, microwave oven, stereo, television, washer and dryer, swimming pool filter pump, gas pool heater, gas water heater, and house heating furnace. He stated that PG&E's published home audit data lists typical household refrigerator consumption at 120 to 175 kWh per month. On this basis, the witness submits that the previously billed electric usage could not have supported complainant's connected appliance load:

PG&E's estimate for gas usage for the ten-year period was based on complainant's first month of recorded usage. The 211 therms billed in January 1974 was reduced to a therm/day figure. To obtain monthly usage, this figure was multiplied by the different number of billing days for each month and then adjusted for seasonal effect based on the monthly variation in annual usage of the entire billing route of 400 customers. Further, to reflect addition of the swimming pool, commencing in 1981, for seven months of each year (April through October), PG&E added 51 therms/month. This figure is based on a PG&E survey and is adjusted to reflect pool size and location. On this basis, the additional amount billed was \$3,914.77.

PG&E's witness believes that it is reasonable to use the 211 therm January 1974 figure as the basis for the estimate for the ten-year period since it is close to average consumption in the area. He stated that recorded consumption of complainant's neighbors could not be used as the basis for an estimate since meter tampering was detected at these locations too. Also, according to the witness, when tampering is detected, subsequent recorded gas usage cannot be used as a basis for estimating because "conservation kicks in" and usage is generally limited to water heating.

To support his contention that gas was used for pool heating and house heating, PG&E's witness contends that the recorded gas usage figures do not show that the pool heater was ever tested following installation. Also, he noted that the gas valve to the house heating furnace was open at the time of PG&E's visit.

Lastly, with regard to the question: when did tampering commence, PG&E's witness, as does complainant, relies on the fact that the pattern of recorded usage for the ten-year period shows no sudden drop. According to the witness, since the electric meter was 45.6% slow when removed from complainant's house, and if tampering was recent, there should be a decernable drop in the electric consumption figures if tampering was initiated midway during the record period. Since there is no such drop during the entire ten-year period, PG&E's witness contends that tampering commenced in 1974, shortly after complainant moved in. His position is the same with regard to the gas usage figures.

Recorded monthly usage and PG&E's estimated figures are set forth in the following tables:

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R	ECO	RDE	D E	LEC	TRI	CAL	. v s	AGE	: (X	WH)	
MONTH	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	222222
JAN	290	292	192	346	140	364	436	380	368	442	
FEB	280	170	254	256	264	490	374.	314	256	484	
MAR	244	258	338	260	442	358	340	356	374	444	
APR	192	220	182	314	252	298	404	366	414	456	
MAY	140	224	228	210	328	310	404	320	362	469	
JUN	152	220	308	206	308	324	388	358	440	475	
JUL	140	148	260	192	182	170	370	344	424	502	
AUC	136	188	190	238	276	386	390	352	458		
SEP	218	274	230	114	242	274	363	707.	492		
						-					
oct	174	136	270	154	270	284	353	372	468		
NOV	286	244	346	192	316	344	310	- 410	÷20		•
DEC	204	342	250	330	480	316	402	336	\$80		
TOT	2456	2716	3148	2812	3500	3918	4534	4312	5056	3272	
M.AVG	204.7	22673	262.3	2341.3	291.7	326.5	377.8	359.3	421.3	467.4	

ESTIMATED ELECTRICAL USAGE (NAK)

MONTH	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
JAN	533	537	253	626	257	669	801	698	676	812
FEB	515	312	467	471	485	901	687	577	654	890
MAR	448	474	621	478	812	658	625	654	687	816
APR	353	J 04	335	577	463	548	743	673	761	828
MAY	257	412	419	386	603	570 [,]	743	588	665	862
JUN	279	404	565	379	566	596	713	658	809	873
JUL	257	272	478	353	335	312	680	632	779	923
AUG	250	346	349	437	507	709	717	647	842	
SEP	401	504	423	210	445	504	667	743	904	
OCT	320	250	496	283	496	522	649	684	860	
NOV	526	448	636-	353	581	632	570	754	772	
DEC	375	629	643	607	882	581	739	618	882	
TOT	4514	4992	5786	5170	6432	7202	8334	7926	9291	6014
M.AVC	376.2	416-C	482.2	430.8	536.0	600.2	694.5	660.5	774.3	859.1

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		RDE			U S A		(THE	RMS) 222222		
MONTH	======= 1975	1976	1977	1978	1979			1982	1983	1984
JAN	211	173	137	137	85	60	77	58	49	31
FEB	149	154	170	136	93	65	79	37	51	31
MAR	111	151	104	109	73	55	67	29	52	36
APR	129	114	98	92	60	65	22	41	21	25
MAY	111	96	44	96	90	51	31	31	16	17
JUN	58	53	48	44	58	45	20	18	25	20
JUL	37	33	19	33	28	39	24	14	23	12
AUG	33	31	19	27	20	29	16	18	18	11
SEP	41	31	21	28	22	26	12	22	16	
OCT	41	33	35	35	.24	27	20	21	10	
NOV	79,	61	54	60	38	49	33	17	13	
DEC	130	113	101	84	116	33	31	31	26	
TOT	1130	1043	850	881	716	544	432	337	320	183
					•				(THE	DWC 1
	2 C & E =======		T I'M			A S	USA BEREEL			
MONTH	1975	1976	* ^ ~ ~ ~							
JAN		1910	1977	1978	1979	1980	1981	1982	1983	1984
	211	257	226	1978 234	1979 234					
FEB	211 206					1980	1981	1982	1983	1984
feb Mar		257	226	234	234	1980 242	1981 250	1982 242	1983	1984
	206	257	226 206	234 220	234	1980 242 213	1981 250 199	1982 242 199	1983 257 234	1984 234 . 206
MAR	206 157	257 206 168	226 206 168	234 220 157	234 220 157	1980 242 213 157	1981 250 199 157	1982 242 199 152	1983 257 234 173	1984 234 .206 163
MAR APR	206 157 147	257 206 168 138	226 206 168 138	234 220 157 138	234 220 157 138	1980 242 213 157 138	1981 250 199 157	1982 242 199 152 203	1983 257 234 173 189	1984 234 .206 163 193
MAR APR MAY	206 157 147 123	257 206 168 138 123	226 206 168 138 119	234 220 157 138 131	234 220 157 138 131	1980 242 213 157 138 131	1981 250 199 157 198 174	1982 242 199 152 203 174	1983 257 234 173 189 170	1984 234 .206 163 193 174
MAR APR MAY JUN	206 157 147 123 77	257 206 168 138 123 82	226 206 168 138 119 85	234 220 157 138 131 77	234 220 157 138 131 77	1980 242 213 157 138 131 77	1981 250 199 157 198 174 128	1982 242 199 152 203 174 133	1983 257 234 173 189 170 136	1984 234 .206 163 193 174 131
MAR APR MAY JUN JUL	206 157 147 123 77 52	257 206 168 138 123 82 58	226 206 168 138 119 85 58 57	234 220 157 138 131 77 58	234 220 157 138 131 77 60	1980 242 213 157 138 131 77 56 65	1981 250 199 157 198 174 128 113	1982 242 199 152 203 174 133 109	1983 257 234 173 189 170 136 107	1984 234 .206 163 193 174 131 111
MAR APR MAY JUN JUL AUG	206 157 147 123 77 52 57	257 206 168 138 123 82 58 57 55	226 206 168 138 119 85 58 57 53	234 220 157 138 131 77 58 61	234 220 157 138 131 77 60 59	1980 242 213 157 138 131 77 56 65 51	1981 250 199 157 198 174 128 113 108	1982 242 199 152 203 174 133 109 108	1983 257 234 173 189 170 136 107	1984 234 .206 163 193 174 131 111
MAR APR MAY JUN JUL AUG SEP	206 157 147 123 77 52 57 50	257 206 168 138 123 82 58 57 55 51	226 206 168 138 119 85 58 57 53 51	234 220 157 138 131 77 58 61 50	234 220 157 138 131 77 60 59 50	1980 242 213 157 138 131 77 56 65 51 54	1981 250 199 157 198 174 128 113 108 101	1982 242 199 152 203 174 133 109 108 106	1983 257 234 173 189 170 136 107 110 106 107	1984 234 .206 163 193 174 131 111
MAR APR MAY JUN JUL AUG SEP OCT	206 157 147 123 77 52 57 50 54	257 206 168 138 123 82 58 57 55 51 61	226 206 168 138 119 85 58 57 53 51 59	234 220 157 138 131 77 58 61 50 51	234 220 157 138 131 77 60 59 50 51 57	1980 242 213 157 138 131 77 56 65 51 54 57	1981 250 199 157 198 174 128 113 108 101 107	1982 242 199 152 203 174 133 109 108 106	1983 257 234 173 189 170 136 107 110 106 107	1984 234 .206 163 193 174 131 111 54

* Swimming pool usage in dispute.

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Discussion

Both complainant and PG&E filed briefs on the question of a time limitation to the period of any backbilling for metered usage.

Complainant points out that the Commission, in its decision dated June 25, 1986 in Order Instituting Investigation 84-05-046, ordered each gas and electric utility to file revised tariff rules as follows:

"Adjustment of Bills for Unauthorized Use

"Where the utility determines that there has been unauthorized use of electric/gas service, the utility may bill the customer for the utility's estimate of up to three years of such unauthorized use." (D.86-06-035, p. 12, Appendix A.)

We agree with complainant that it is Commission policy to limit such recovery under the utilities' tariff to three years, and the Commission has interpreted PU Code Section 737 requiring such limitation. However, we should note that the Commission also stated:

> We recognize that the utilities have recourse before the courts to causes of action other than the one created in Section 737, such as fraud, meter tampering or energy diversion under Civil Code Section 1882, breach of contract, etc., and that many of these other causes of action are governed by longer statutes of limitation that will permit the utility to claim and collect for undercharges going back more than three years. It is not our intent in any way to limit collections related to such actions, and because the issues in such actions are only infrequently encountered by the Commission in the exercise of its jurisdiction, we prefer to leave the resolution of such claims to the greater familiarity and competence of the courts.

"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 threeyear backbill limit." (D.86-06-035, pp. 9 and 10a.)

Accordingly, we will limit any recovery in this case to the last 36 months of the period in dispute.

Before we turn our attention to the facts in this case, we should note that the Commission also stated:

> "Our only concern is whether the backbill is appropriate and correctly calculated. Under a proper view of our proceedings, then, the initial burden of proof that the backbill is improper or incorrect properly lies with the complainant.

"The complainant (customer), then, has the burden of proof to establish that the backbill is unfounded and incorrect. This may entail no more than testimony denying any tampering, energy diversion, or unauthorized use of energy or whatever evidence the complainant can produce to show that the energy load of the appliances and equipment on the premises is not capable of requiring the amount of energy estimated by the utility as having been used. Thereafter, the burden of producing evidence shifts to the utility to support the basis for the backbilling to the customer and to support the reasonableness of its estimate of the amount billed. Whether tampering or energy diversion was performed by the customer is not the issue. The issue is whether the customer benefited from unmetered energy regardless of whether or not there was meter tampering or energy diversion and regardless of who performed any tampering or energy diversion." (D-86-06-035, p. 5.)

With the Commission's policy in mind we will now focus on whether complainant benefited from unmetered energy.

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Both complainant and PG&E rely on the premise that if there was unmetered usage there should be a noticeable drop in the recorded usage pattern at the time unmetered usage is initiated. In this case, both parties agree that the recorded figures do not reflect any drop in the recorded usage pattern.

PG&E's position is that the unauthorized meter adjustments were initiated shortly after complainant took service. That is why there is no drop reflected in the recorded figures.

Complainant's position is that, if there were unauthorized meter adjustments, those adjustments were made shortly before PG&E changed the meters.

Based on the evidence and testimony submitted, which included broken meter seals, damaged internal screws, and meter test results, we conclude that the electric and gas meters were subjected to repeated unauthorized adjustments which caused them to run slow or record no consumption. And based on the connected appliance load, we conclude that complainant did receive the benefit of unmetered energy.

The next question is: for how long did complainant receive electric and gas service that was not properly billed in accordance with PG&E's tariff? We will make this determination based on all the evidence submitted.

PG&E's argument is that the recorded figures for 1975 onwards do not support the connected appliance load. Also, according to PG&E, the condition of the meters, as described previously, supports PG&E's position that unauthorized meter adjustments were initiated shortly after complainant took service.

Other than complainant's testimony that his house is double-insulated and unoccupied during the day, he has offered little evidence to support his recorded usage which is below average in view of his connected load.

Reviewing the recorded electric usage figures set forth in the preceding tables, we find that the figures, especially those

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for the period following December 1980, when the swimming pool was completed, do not support the connected appliance load. The basis for our conclusion is that on July 20, 1984, the day PG&E changed the meters, the new meter recorded electric consumption of 8 kWh in 2 hours and 40 minutes. This figure should include refrigerator and swimming pool filter pump operation. Since complainant testified that the pump operates every day, and pool pumps typically operate 6 hours per day in the summer, we would expect usage of 16 kWh for 6 hours each day. Ignoring usage for the remaining 18 hours of each day, this equates to usage of at least 480 kWh per month. In other words, we conclude that for the summer months 1981 onwards, complainant's recorded usage should be at least 480 kWh per month. However, we find that the recorded figures, especially during 1981 and 1982, are well below the 480 kWh per month level. Accordingly, we conclude that (following completion of the swimming pool), complainant received electric service that was not metered in accordance with PG&E's tariff from December 1980 through April 1984.

With regard to electric usage prior to installation of the swimming pool, keeping in mind PG&E's testimony on refrigerator consumption of 120 to 175 kWh per month, and comparing this with complainant's recorded figures of 140, 152, 140, and 136 for the months of May through August 1975, we conclude that these figures support PG&E's position that unmetered consumption was initiated shortly after complainant took service in December 1974. Accordingly, complainant's argument that unauthorized meter adjustments, if any, were recent is unconvincing.

The next issue is the reasonableness of PG&E's estimate of electric usage. Keeping in mind that: (1) the usage of complainant's neighbors cannot be used as a basis; (2) the electric meter was not able to record low load usage and was 45.6% slow on full load when removed by PG&E; (3) the pool filter pump and refrigerator operate every day; and (4) PG&E's estimate compares

with complainant's present usage, we conclude that PG&E's estimate is reasonable. Complainant has not demonstrated otherwise.

Turning to gas usage, the evidence submitted by PG&E confirms that the register of the gas meter was repeatedly removed. Since the meter will deliver gas when the register is removed but not record usage, we conclude that complainant received the benefit of unmetered gas.

Complainant testified that he uses his fireplace all the time in the winter. He noted that in the early years he burned four to five cords of wood each year. Also, complainant stated that the solar pool cover provides all the heating for his swimming pool.

On the other hand, we have PG&E's testimony that the gas valve to the house heating furnace was open, and there is the unexplained absence of any recorded increase in gas usage for testing the newly installed swimming pool heater. In addition, it has been established that the meter register was subjected to removal. These factors do not allow us to give complainant the benefit of the doubt that during cold weather the gas central heating did not automatically turn on when wood was not burning in the fireplace. Likewise, we are not convinced that the pool heater was not used, at least during the early spring and fall months, when there was not sufficient sun for the solar cover to maintain the swimming pool at a comfortable temperature.

Also, with regard to gas usage, we agree with PG&E that the unauthorized meter adjustments started shortly after complainant took service in December 1974. The basis for this conclusion is that, as discussed previously, there is no sudden drop in usage during the ten-year period.

With regard to PG&E's estimate of gas usage, since complainant's neighbors' usage cannot be used and PG&E's estimate compares reasonably with the average for the area, we will adopt PG&E's estimate with an adjustment for pool consumption. Because

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PG&E's testimony with regard to the effect of solar covers on pool heating requirements was inconclusive, we will not adopt PG&E's estimate for pool heating of 51 therms per month for all seven months of the year. Instead, we will adopt as reasonable 51 therms per month for the cooler months of April and October only. We will give complainant the benefit of the doubt that the pool heater was not used during the remaining warmer summer months, and the winter months.

In summary, we conclude that PG&E should resubmit its bill to complainant to recover the amount due for unmetered energy provided during the last 36 months of the period in dispute. No adjustment should be made to the monthly amounts previously billed for electric and gas usage for the last 36 months, except that a reduction of 51 therms per month for the months of May through September for the years 1981 onwards should be made in the gas bill.

Findings of Fact

1. Complainant's electric meter was repeatedly subjected to unauthorized adjustments which caused it to run slow and not record all electricity passing through the meter.

2. Complainant's gas meter was repeatedly subjected to unauthorized removal of its register and did not record all gas passing through the meter.

3. Complainant received the benefit of unmetered electricity and gas for at least three years up to April 1984.

4. PG&E's estimate of unmetered usage of electricity and gas is reasonable, except that a reduction of 51 therms per month for the months of May through September for the years 1981 onwards should be made in the gas bill.

Conclusions of Law

1. The Commission has established a three-year limitation for unmetered energy backbilling under a utility's tariff.

2. The backbilling should be resubmitted to complainant for the 36 months ending April 1984, adjusted for swimming pool gas usage as described above.

ORDER

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 <u>NOV 2 5 1987</u>, at San Francisco, California.

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

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

Victor Weisser, Executive Directo