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Decision 92-10-008 October 6, 1992

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Colusa County Canning Company,

Complainant,

vs.

Pacific Gas and Electric Company,

Defendant.

ORIGINAL

Case 92-01-059
(Filed January 24, 1992)

Daren S. Kaiser, for Colusa County Canning Company, complainant.
Michael W. Foster, attorney at law, for Pacific Gas and Electric Company, defendant.

OPINION

The Colusa County Canning Company (CCCC) seeks reparations from Pacific Gas and Electric Company (PG&E) of \$240,000 because of inadequate electric service in 1990.

Complainant's Testimony

A witness for complainant testified:

CCCC is a tomato paste production facility which operates during July, August, and September annually. The plant utilizes approximately 4.6 million kilowatt-hours (kWh) of electricity annually. The plant processes over 100 tons/hour of fresh tomatoes. The plant chops and screens the tomatoes into a juice. Water is then evaporated from the juice until the juice has been concentrated into a thick tomato paste. The paste is then packaged aseptically into 3,000-pound containers. All the processes are linked in series such that if any component is inoperable, the entire plant stops.

CCCC's annual profitability is tied directly to the amount of tomatoes that can be processed during the harvest season. CCCC attempts to process all the tomatoes it can in a season and any stoppages or slow-downs of production take away from potential profit. During the 1990 canning season defendant's electric system caused numerous voltage sags, outages, and surges, all of which caused production to stop for various lengths of time.

In 1982, when CCCC was first constructed, a single PG&E electrical service supplied the facility from the Cortina substation near Williams. In the spring of 1989, a second PG&E electrical service was brought into the plant from the Arbuckle substation to facilitate growth of the plant. Each PG&E service terminates at the plant in a PG&E transformer. The Arbuckle service feeds a CCCC main switchgear called MD-2. The Cortina service feeds a CCCC main switchgear called MD-1. PG&E is to supply the 480 volts AC, 4,000 Amps., 60Hz.

During the 1989 production season, numerous voltage sags and outages were experienced at CCCC. The disturbances were primarily on the Arbuckle service. No formal documentation was made of these disturbances other than sketchy notes in maintenance logs. However, it seems that the outages were similar in frequency and severity to those experienced during the 1990 season. The poor power quality supplied to CCCC during the 1989 season caused significant production problems resulting in substantial lost profits.

PG&E representatives were notified at the occurrence of each of the 1989 disturbances. PG&E stated each time that its equipment did not register any such disturbance. Further, PG&E representatives suggested that CCCC purchase and install a sophisticated power monitoring device so that proper documentation of disturbances would be compiled. PG&E representatives stated that such documentation would assist PG&E in correcting any power transmission problems.

Acting on PG&E's advice, CCCC invested approximately \$10,000 in a Dranetz 626G Universal Disturbance Analyzer which was installed prior to the 1990 production season. The Dranetz unit successfully operated throughout the season, recording disturbances as they occurred. These disturbances were automatically recorded onto a paper strip recorder as they occurred. For ease of illustration, a summary of the 1990 disturbances was compiled into a LOTUS spreadsheet which also lists the effect to production and profit that each disturbance had on CCCC. (Exhibit 1.) The summary shows the precise moment in time that each disturbance occurred along with its magnitude, duration, and effect to CCCC production rate and profit. The total of the 1990 disturbances which caused downtime or damage to the CCCC process and equipment is the following:

<u>Service</u>	<u># of Sags</u>	<u># of Surges</u>	<u>Lost Profit or Cost to CCCC</u>
Cortina (MD-1)	2	1	\$ 31,000
Arbuckle (MD-2)	25	1	\$240,600

Because the quality of the Arbuckle service is much worse than the Cortina service, it is apparent that the problems with the Arbuckle system are within the control of PG&E (i.e., problems could not all be birds, fire, automobiles, lightning, etc.). Furthermore, numerous voltage surges above the 480 volt design, the worst being 1,050 volts over the 480 volts, show that something is wrong with the transmission system of the Arbuckle service.

At the occurrence of each disturbance during 1990, PG&E representatives were contacted. Each time that CCCC has suggested that there may be some correctable problems with the Arbuckle service, the PG&E response has been "We will check into it and get back with you." Because CCCC repeated this concern numerous times since August 1989 and saw no real progress made toward resolving the issues, an informal complaint was filed with the Commission February 25, 1991. In response to this complaint, a group of PG&E

representatives met with CCCC to attempt to resolve the issues. As a result of this meeting, PG&E determined that all electrical service for CCCC for the 1991 season would come from the Cortina substation only (i.e., no service from the Arbuckle substation). This was done and CCCC experienced very acceptable electrical power quality from PG&E throughout the 1991 season. Specifically, there were zero disturbances experienced by CCCC with the exception of one complete outage in September due to high winds.

PG&E's Testimony

PG&E witnesses testified that PG&E is unaware of blips lasting only tenths of seconds. Specifically, PG&E does not, and cannot, chart fluctuations of such a small size. They testified that the costs of technology dictate that the shortest fluctuations registered by PG&E last between ten seconds and two minutes - sufficient to affect bank line reclosers or other utility service equipment. Moreover, they testified that blips lasting only tenths of seconds are not the result of negligence by PG&E or any other act or omission by the utility. They said that PG&E's Rule 2 instructs customers to expect momentary fluctuations and utilize protective devices to protect equipment. There is no evidence that CCCC followed this advice by taking steps to guard against these momentary fluctuations.

They said that the Dranetz Analyzer employed by CCCC registers activity more sensitively than that required by Rule 2. Although fluctuations of 10-second to 2-minute size would be charted by PG&E, there is no expectation that tenth of a second blips can be avoided or limited by PG&E. Based on PG&E's 1989-1991 Service Reliability Reports summarizing outages recorded by PG&E equipment, the Arbuckle circuit has a reliability rating that matches or exceeds the Cortina circuit. Because Arbuckle is a rural circuit in an area particularly susceptible to lightning storms and other acts of nature, outages or transmission line failures have been caused by weather-related factors and other

natural causes or by third-party accidents. Between 1989 and 1991 not one interruption recorded by PG&E occurred as a result of some factor within PG&E's control.

PG&E's witnesses testified that the Arbuckle circuit provides electricity to several other large customers, including three large rice dryer processors with significant warehouse and production facilities similar to or greater than the operation run by CCCC. Not a single Arbuckle customer other than CCCC has complained of voltage fluctuations or other service problems regarding the circuit.

They concluded by saying that significant improvements have been made to the Arbuckle and Cortina circuits to provide excellent service to complainant. In 1987 alone, more than \$500,000 was spent to bolster the effectiveness of these circuits.

Discussion

PG&E's Electric Tariff Rule 2C.1.b provides:

C. VOLTAGE AND FREQUENCY CONTROL

1. CUSTOMER SERVICE VOLTAGES

b. Exceptions to Voltage Limits

Voltage may be outside the limits specified when the variations:

- 1) Arise from the temporary action of the elements.
- 2) Are infrequent momentary fluctuations of a short duration.
- 3) Arise from service fluctuations.
- 4) Arise from temporary separation of parts of the system from the main system.
- 5) Are from causes beyond the control of PG&E.

- c. It must be recognized that, because of conditions beyond the control of PG&E or customer, or both, there will be infrequent and limited periods when sustained voltages outside of the service voltage ranges will occur. Utilization equipment may not operate satisfactorily under these conditions, and protective devices may operate to protect the equipment.

Rule 2 is clear that voltage may be outside of specified limits when the variations are infrequent momentary fluctuations of a short duration or are from causes beyond the control of PG&E. Moreover, Rule 2 expressly states that the customer must recognize that "there will be infrequent and limited periods when sustained voltages outside of the service voltage ranges will occur" and that "utilization equipment may not operate satisfactorily under these conditions, and protective devices may be operated to protect the equipment."

The Rule 2 exceptions to voltage ranges include the fluctuations charted by complainant. Rule 2 provides for infrequent voltage fluctuations of a short duration. CCCC received 24-hour nonstop service for 72 days during the 1990 production season and seeks reparations due to no more than 8 seconds worth of momentary blips. These fluctuations, which represent less than .0000002 of 1% of total service provided to CCCC, can only be described as highly infrequent and practically nonexistent. Further, these fluctuations were of the shortest duration possible. As indicated by complainant's computer summary, nearly every Arbuckle fluctuation charted by CCCC is only one 1/10 of a second to 6/10 of a second long.

It is obvious that complainant's reparations claim is actually a damage claim based on lost profits. We have uniformly held that we are without jurisdiction to award damage claims (Marin

Telephone v. Pacific Bell (1986) 20 CPUC 2d 643). In any event, the outages caused by PG&E's service were of such short duration that they fall within the protection afforded PG&E by its Tariff Rule 2. That rule warns customers of the problem of momentary fluctuations and recommends protective devices. We will find for the defendant.

Findings of Fact

1. CCCC is a tomato paste production facility which operates during July, August, and September annually. It operates 24 hours a day and utilizes approximately 4.6 million kWh of electricity annually.

2. During the 1990 canning season, PG&E's electric system caused a number of voltage fluctuations, some of which caused production to stop on CCCC's facility.

3. The outages lasted from approximately 1/10 of a second to approximately 6/10 of a second. Over the course of the plant operation in 1990, the total outage was approximately 8 seconds.

4. The outages caused the entire production facility to cease operations for extended periods of time causing, in the estimate of complainant, approximately \$240,000 in lost profits.

5. PG&E's Rule 2 expressly warns customers that there may be voltage fluctuations outside of the normal limits provided by PG&E, which are infrequent momentary fluctuations of a short duration. Rule 2 warns customers to install protective devices to protect their equipment should these momentary fluctuations be expected to cause problems.

6. The voltage fluctuations recorded by CCCC in 1990 were infrequent momentary fluctuations of a short duration within the scope of Rule 2.

7. The electric power provided by PG&E was within the voltage limits requested by complainant and pursuant to PG&E's filed tariffs.

Conclusion of Law

The Commission concludes that reparations are not warranted and that the relief requested by complainant should be denied.

ORDER

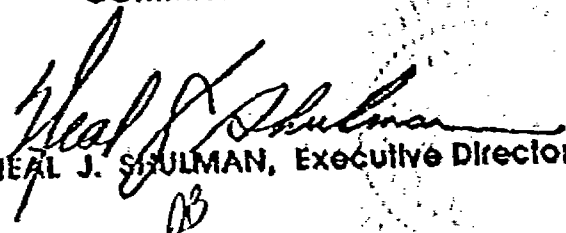
IT IS ORDERED that the relief requested by Colusa County Canning Company is denied, and Case 92-01-059 is closed.

This order is effective today.

Dated October 6, 1992, at San Francisco, California.

DANIEL Wm. FESSLER
President
JOHN B. OHANIAN
PATRICIA M. ECKERT
NORMAN D. SHUMWAY
Commissioners

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


NEAL J. SHULMAN, Executive Director