

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Florida Power) DOCKET NO. 930132-EI
Corporation - Petition for) ORDER NO. PSC-93-0950-FOF-EI
approval of random sampling plan) ISSUED: June 24, 1993
for demand meter testing.)
_____)

The following Commissioners participated in the disposition of this matter:

J. TERRY DEASON, Chairman
SUSAN F. CLARK
JULIA L. JOHNSON

NOTICE OF PROPOSED AGENCY ACTION

ORDER APPROVING RANDOM SAMPLING PLAN
FOR FPC'S DEMAND METERS

BY THE COMMISSION:

NOTICE IS HEREBY GIVEN by the Florida Public Service Commission that the action discussed herein is preliminary in nature and will become final unless a person whose interests are adversely affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code.

On February 3, 1993, Florida Power Corporation (FPC) filed a petition requesting that the Commission approve its proposed random sampling plan for testing the accuracy of new solid-state demand meters. FPC's request to perform random sample tests on its demand meters was in response to the company's recent restructuring of its general service rates in Docket No. 910890-EI - Petition for a Rate Increase by Florida Power Corporation. Until this year, a random sampling plan for demand meters was not needed due to the small numbers purchased annually. As a result of this rate restructuring, the number of newly installed demand meters is expected to be so large in 1993 that the use of a random sampling plan for incoming shipments will be the only practical means of deciding whether the meters are of acceptable quality. After FPC installs the demand meters necessary to implement its change in rate structure, the number of demand meters installed annually is expected to be close to the amount installed in past years, for which a demand meter random sampling plan was not necessary.

Rule 25-6.056, Florida Administrative Code, calls for two types of tests on electric meters: 1) tests performed on meters before initial and successive installation and 2) periodic tests of

DOCUMENT NUMBER-DATE

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FLORIDA PUBLIC SERVICE COMMISSION

in-service meters. The accuracy of all meters must be tested prior to installation unless the utility follows a Commission approved random sampling plan. Rule 25-6.056 provides for random sampling single-phase and polyphase, self contained watt-hour meters only. All types of demand meters must be tested on a one hundred percent basis. Because FPC's petition requested that we approve a random sampling plan for demand meters, the company requested a waiver pursuant to Rule 25-6.002(2), Florida Administrative Code.

The requirement that all demand meters be individually tested prior to installation and within each eight-year period after installation is based on the American National Standard Code for Electricity Metering, ANSI Standard C12.1, of the American National Standards Institute, Inc. It is our understanding that improvements have been made to the accuracy of demand meters since the rule was written. Neither the ANSI Standard nor Rule 25-6.056, however, have been changed to reflect these improvements. We believe that Rule 25-6.056 should remain in agreement with the ANSI Standard.

Rule 25-6.002(2), Florida Administrative Code, gives us discretion to modify or grant a temporary exemption from the requirements of our rules in cases of unusual hardship or unreasonable difficulty. In this case, FPC must install a large number of demand meters in a short period of time. We find that FPC's pressing need to test over 22,000 demand meters in 1993 is a case of unusual hardship and unreasonable difficulty. Accordingly, we waive the requirements of Rule 25-6.056 in this instance. This waiver, however, shall be temporary. It shall apply only to those new solid-state demand meters purchased in 1993. We find that this temporary waiver shall enable FPC to implement its new rate structure, which is beneficial to FPC's customers. In addition, we find that because of recent advances in demand meter technology, this waiver will not jeopardize quality assurance.

For each type of meter not included in a random sampling plan, Rule 25-6.056 lists how often each in-service meter must be tested. Demand meters are required to be tested every eight years after installation. Our waiver of rule 25-6.056 shall be conditioned upon the utility conducting an in-service test, within six years, of those demand meters tested by FPC's random sampling plan. This six year interval accelerates, by two years, the initial cycle of in-service testing for demand meters. This accelerated in-service testing program will provide a safeguard against the possibility of

any accuracy problems for those meters not initially sampled and tested.

FPC's proposed random sampling plan is part of the American National Standard - Sampling Procedures and Tables for Inspection by Variables for Percent Nonconforming. The American National Standard (ANSI/ASQC Z1.9-1980) is approved by the American National Standards Institute, Inc. for a variety of products. The company proposes using the "double specification limit, variability unknown - standard deviation" methodology found in the American National Standard. This is the sampling plan presently used by the company to sample and test new watt-hour meters.

FPC's proposed procedure is to make an estimate of the average accuracy of each incoming shipment of meters. Based on the estimated average accuracy and estimated variability of the accuracy for each shipment, an estimate is made of the proportion of meters in the shipment not performing according to prescribed standards. The shipment is rejected if the estimated proportion is too high. Rule 25-6.052 requires that demand meter error shall not exceed 4 percent. FPC proposes testing new demand meters with a limit of one and one-half percent. In order for a shipment to be accepted under the proposed sampling plan, the highest estimated percent not performing according to the limit would be around five and one-half percent for a typical lot size of around three hundred meters. FPC uses specification limits of ninety-eight percent and one hundred-two percent for watt-hour meter accuracy.

Gulf Power Company and Tampa Electric Company use specification limits for percent accuracy of ninety-eight percent and one hundred-two percent. Florida Power and Light Company's procedure accepts shipments that test measurements indicate with ninety percent confidence, approximately ninety-five percent of the samples are accurate within the specified limits. FPL's specification limits for percent error are minus one percent and positive one percent.

When FPC's proposed random sampling plan is compared to random sample plans for new watt-hour meters we have approved in the past, and when FPC's proposed plan is compared to the requirements for meter accuracy for watt-hour meters (two percent) and demand meters (four percent), we find the plan proposed by FPC to be reasonable. Accordingly, we approve FPC's plan for random sampling new solid-state demand meters purchased in 1993.

ORDER NO. PSC-93-0950-FOF-EI
DOCKET NO. 930132-EI
PAGE 4

It is, therefore,

ORDERED that Florida Power Corporation's motion to waive Rule 25-6.056, Florida Administrative Code, is approved with the condition that this be a temporary waiver as discussed above. It is further

ORDERED that Florida Power Corporation's proposed random sampling plan for new solid-state demand meters purchased in 1993 is approved. It is further

ORDERED that this Order shall become final and this docket shall be closed unless an appropriate petition for formal proceeding is received by the Division of Records and Reporting, 101 East Gaines Street, Tallahassee, Florida 32399-0870, by the close of business on the date indicated in the Notice of Further Proceedings or Judicial Review.

By ORDER of the Florida Public Service Commission this 24th day of June, 1993.

STEVE TRIBBLE, Director
Division of Records and Reporting

(S E A L)
MAH:bmi

by: Kay Flynn
Chief, Bureau of Records

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.59(4), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as

well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

The action proposed herein is preliminary in nature and will not become effective or final, except as provided by Rule 25-22.029, Florida Administrative Code. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, as provided by Rule 25-22.029(4), Florida Administrative Code, in the form provided by Rule 25-22.036(7)(a) and (f), Florida Administrative Code. This petition must be received by the Director, Division of Records and Reporting at his office at 101 East Gaines Street, Tallahassee, Florida 32399-0870, by the close of business on July 15, 1993.

In the absence of such a petition, this order shall become effective on the day subsequent to the above date as provided by Rule 25-22.029(6), Florida Administrative Code.

Any objection or protest filed in this docket before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

If this order becomes final and effective on the date described above, any party adversely affected may request judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or by the First District Court of Appeal in the case of a water or wastewater utility by filing a notice of appeal with the Director, Division of Records and Reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days of the effective date of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.