BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Complaints by Southeastern Utility Services, Inc., on behalf of various customers, against Florida Power & Light Company concerning thermal demand meter error.	DOCKET NO. 030623-EI ORDER NO. PSC-03-1320-PAA-EI ISSUED: November 19, 2003

The following Commissioners participated in the disposition of this matter:

LILA A. JABER, Chairman
J. TERRY DEASON
BRAULIO L. BAEZ
RUDOLPH "RUDY" BRADLEY
CHARLES M. DAVIDSON

NOTICE OF PROPOSED AGENCY ACTION
ORDER RESOLVING COMPLAINTS

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 substantially affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code.

BACKGROUND

In January, 2002, we received a customer inquiry from Southeastern Utility Services, Inc. (SUSI), on behalf of a Florida Power & Light Company (FPL) customer. The complaint concerned one of FPL's Type 1V thermal demand meters used in commercial applications. SUSI alleged that the meter improperly measured, or registered, demand when it was exposed to sunlight followed by shade. At the request of SUSI, a Commission staff engineer witnessed a test of the meter under simulated field conditions. The test revealed that the meter could become inaccurate when

subjected to changes in temperature that would be caused by exposure to sunlight in the morning followed by shade in the afternoon.

In September, 2002, to determine whether the phenomenon was unique to this particular meter, FPL tested a sample of 50 Type 1V thermal demand meters and a sample of 100 additional thermal demand meters of various types under the same simulated field conditions. None of the 150 additional meters responded similarly to the original meter, but the test results showed that more than the allowable percentage of Type 1V meters registered demand outside of the tolerance limits specified in Commission Rule 25-6.056, Florida Administrative Code.

On October 11, 2002, FPL notified staff of its plans to remove and replace all of its approximately 3,900 Type 1V thermal demand meters by January, 2003. FPL indicated that it would test each meter and issue refunds to customers whose meters over-registered demand, but it would not backbill customers whose meters under-registered demand absent evidence of meter tampering or fraud. The results of the individual meter tests conducted by the utility indicated that 15% of the meters registered outside of tolerance, with 11% under-registering demand and 4% over-registering demand. Thus, many more customers were under-billed rather than over-billed as a result of Type 1V meter errors. Recently, FPL retested at a higher demand level, or higher percentage of scale, each meter that over-registered demand at any level in testing and was not already tested at the higher percentage of scale. The results of the additional tests indicated that 6% of the meters over-registered demand outside of tolerance.

SUSI has submitted complaints on behalf of several customers whose Type 1V meters (now removed and replaced by electronic demand meters) were found to over-register demand during FPL's tests. On January 24, 2003, SUSI submitted a complaint on behalf of one Target account. On March 6, 2003, SUSI submitted complaints on behalf of thirteen additional Target accounts. On July 16, 2003, SUSI submitted complaints on behalf of two Dillards accounts and two JCPenny accounts. On July 17, SUSI submitted complaints on behalf of three Best Buy accounts. On July 29, 2003, SUSI submitted a complaint on behalf of one Ocean Properties account.

Since that time, SUSI has submitted complaints on behalf of six Home Depot accounts. In each complaint, except the January 24 Target complaint, there is no dispute that the customer's meter over-registered demand. Each complaint involves the appropriate amount of refund to be provided to those customers.

SUSI and FPL attempted to settle the complaints submitted by SUSI without the need for Commission intervention. The parties made progress in narrowing the issues in dispute, but could not reach agreement over the appropriate amount of refunds. In June, 2003, the parties informed us that they had reached an impasse concerning the complaints filed up to that time. Thereafter, on July 16, 2003, we opened Docket No. 030623-EI to address issues regarding the remaining dispute, which is the appropriate method to determine refunds for those customers who used Type 1V thermal demand meters that over-registered demand.

We have jurisdiction over this matter pursuant to Chapter 366, Florida Statutes, including Sections 366.04 and 366.05, Florida Statutes. After considerable discussion at our October 21, 2003, Agenda Conference, and upon review of the information obtained by our staff and from the parties, we find that the appropriate method to determine the meter error from which refunds should be calculated is to use the absolute percentage error based upon the average calculation for the lowest and highest demand during the refund period. We also find that FPL should not be required to backbill single account customers using Type 1V meters that under-registered billing demand, unless there is evidence of meter tampering or fraud. FPL should aggregate the bills of customers with multiple accounts and refund any net over-billing. FPL should not backbill customers with multiple accounts that show net under-billing. FPL should not aggregate multiple accounts of customers who requested meter tests for specific meters before October 22, 2002. With respect to the calculation of a refund for the specific meter identified in SUSI's January 24, 2003, complaint on behalf of one Target account, we find that 6.7 percent is the appropriate percent error to calculate a refund for that meter. We find that the refunds should be calculated over the 12-month period prior to removal of the Type 1V meter for all meters that over-registered demand outside of tolerance, including the meter for the specific Target complaint filed on January 24, 2003. Finally, we find that

FPL should use the same rate schedule under which the accounts were billed through the defective meters to calculate the refunds and interest should be assessed on the amounts to be refunded and calculated in accordance with Rule 25-6.109, Florida Administrative Code. Our reasons for these decisions are explained in detail below.

DECISION

Percent Meter Error for Refund Calculation

Three Commission rules affect our decision on this issue. First, Rule 25-6.052, Florida Administrative Code, describes the procedures used to test a meter to determine if it is inaccurate, that is, registers beyond tolerance limits. Second, Rule 25-6.058, Florida Administrative Code, defines the procedure used to determine the average meter error once the meter has been determined to be inaccurate beyond tolerance limits. Third, Rule 25-6.103, Florida Administrative Code, describes the procedure used for adjusting bills when a meter is found to be registering outside acceptable limits.

Rule 25-6.052(2)(a) provides that the acceptable percent error for lagged demand meters, which include the type of meter that is the subject of these complaints, is four percent of full-scale value when tested at any point between 25 percent and 100 percent of full-scale value. If a meter is found to register outside of this tolerance limit, the degree to which the meter is in error and the manner in which bills should be adjusted must be determined. Rule 25-6.103(1) subtitled "Fast Meters," states that whenever a meter is found to have an error in excess of the plus tolerance allowed in Rule 25-6.052, the utility shall refund to the customer the amount billed in error as determined by Rule 25-6.058. Rule 25-6.058, however, does not clearly provide an appropriate method for determining the amount billed in error for the demand meters in question in this case. Rule 25-6.058(3) states that for a polyphase meter used to measure a varying load, the average error shall be determined in one of the following ways:

> (a) The weighted algebraic average of its error at light load (approximately 10 percent rated test amperes) given

> a weight of one, its error at heavy load (approximately 100 percent rated test amperes) and 100 percent power factor given a weight of four, and at heavy load (approximately 100 percent rated test amperes) and 50 percent lagging power factor given a weight of two; or
>
> (b) A single point, when calculating the error of a totally solid state meter, and the single point is an accurate representation of the error over the load range of the meter.

While thermal demand meters are polyphase meters, neither (a) nor (b) above are relevant to determining average error for demand meters. Part (b) is not applicable to this case because a thermal demand meter is not a solid state meter. Part (a) is relevant to calculating average error in energy (kWh) readings from watthour meters, but not demand (kW) readings from demand meters. Part (a) calls for measuring the error at light load (approximately 10 percent of rated test amperes). Because customers with demand meters are billed at the maximum demand for the billing period, a test at light load would not be relevant in calculating average error in demand readings. Further, Rule 25-6.052, which provides test procedures for measuring the accuracy of both energy and demand readings on meters, refers to Rule 25-6.058 to calculate error in energy readings from watthour meters, but it does not make a similar reference for demand readings from lagged demand meters.

SUSI proposes that refunds be based on the higher of (1) the error observed during the testing of the old meter or (2) the average error observed in comparing the new meter billing demands with the old meter billing demands for comparable months. This "higher of" method has no basis in the Commission's rules. In addition, while the first component of SUSI's proposed method is consistent with the requirement in Rule 25-6.103(3) that refunds be calculated based on the error demonstrated in a meter test, the second component is inconsistent with that requirement and does not have a basis in any Commission rule.

FPL and SUSI have agreed to test the meters at the single point of 80% of full scale. They have also agreed that if the kilowatt error divided by the full-scale kilowatt value is greater

than four percent, the customer should receive a refund. This method is consistent with Rule 25-6.052(2)(a) as a reasonable means to determine whether a meter is inaccurate and whether a customer should receive a refund. FPL and SUSI have not agreed, however, on the method to calculate amount of the refund. We find that, for purposes of calculating the refund, it is reasonable to use the absolute percentage error based upon the average calculation for the lowest and highest billing demand during the refund period to determine the number of kilowatts billed in error.[1] This method is appropriate because it is based on the actual loads that the customer experienced and uses actual (or absolute) error, and because our rules do not clearly provide a method for determining average meter error for demand meters for purposes of a refund.

Backbilling

As stated above, FPL proposed a procedure that it would use to remove, replace, and test Type 1V thermal demand meters, including the method for calculating refunds. The procedure calls for netting multiple account customers' registration errors, but not backbilling single account customers for any under-registration of demand. Multiple account customers would not be backbilled for any net under-registration.

Rule 25-6.103(2)(a), Florida Administrative Code, provides that if a meter is found to be slow, nonregistering, or partially registering, a utility may backbill the customer for a period not greater than twelve months from the date it notifies the customer of the meter error. Under FPL's proposal, no customer would be backbilled for Type 1V meters that under-registered billing demand outside of tolerance. While our rules do not address the netting procedure proposed by FPL, we believe the procedure is fair and reasonable, because no customer will be asked to pay for errors

[1] We note that FPL compared the monthly billing demands of those Type 1V meters that over-registered demand with the comparable monthly billing demands of the replacement electronic meters. Our review of the data indicates that the comparisons did not yield a consistent degree of error upon which we could comfortably rely to determine a refund amount.

caused by under-registering Type 1V meters. We approve this procedure, with the one modification described below.

As noted, FPL's proposal calls for the removal and testing of all of its approximately 3,900 Type 1V thermal demand meters by January, 2003. Pursuant to Rule 25-6.060, Florida Administrative Code, a customer may request a meter test referee from the Commission. The Commission must then notify the utility of the request. Under the rule, the utility may not disturb the meter outside of the presence of a Commission representative once it has received notice of the request, unless authority to do so is first given in writing by the Commission or the customer. FPL was concerned that the Commission may receive a request for a meter test referee prior to a particular 1V meter being removed, but, in the time it would take for that request to be communicated from the Commission to FPL then to FPL's meter replacement crew, the meter may be removed in the normal course of FPL's planned replacement and testing program. Thus, before implementing its program, FPL requested authority to remove, outside the presence of a Commission representative, its Type 1V meters for which it had not already received a meter test referee request. By letter dated October 21, 2002, our General Counsel, pursuant to the rule, granted FPL's request for authority to remove the 1V meters outside the presence of a Commission representative, in order to improve the efficiency and expediency of the replacement program. This authority applied only to future, not pending, meter test referee requests, and was conditioned on FPL maintaining and documenting a continuous chain of custody for meters subject to such requests.

SUSI had pursued meter test referee requests and refunds on behalf of several customers prior to the grant of authority described above. Those customers' meters were not subject to the mass removal and testing program, including the netting process proposed by FPL for meters removed and tested under that program. In light of these facts, we find it appropriate to exempt any specific Type 1V meter for which a test was requested prior to October 22, 2003, from the multiple account netting process approved above.

Percent Meter Error for Refund Calculation for January 24, 2003, Complaint

On August 6, 2002, we received a letter from Target Stores requesting a refereed meter test. During testing it was observed that the meter in question had a "pusher" pointer that was bent. SUSI questioned the results of the meter test because of this mechanical problem. This meter became the subject of SUSI's January 24, 2003, complaint.

On a properly functioning meter, as load increases the pusher pointer pushes a second pointer, or maximum demand pointer, on the meter scale to the customer's maximum registered demand. As load decreases, the pusher pointer recedes down the meter scale while the second pointer remains at the point of the customer's maximum registered demand. A customer's monthly demand charge is based on its maximum demand for that month as shown by the second pointer's position on the meter scale at the time the meter is read. The meter is reset after it is read.

SUSI claimed that the pusher pointer was contacting the maximum demand pointer prematurely, causing the demand pointer to read higher than it should. FPL asserted that, although the pusher pointer caused the meter to read high temporarily, the pusher pointer pulled the maximum demand pointer down the meter scale along with it as load decreased. FPL stated that this could even cause the meter to under register.

The refereed meter test showed an error of 3.14 percent over-registration when tested at 61.4 percent of full scale. This degree of over-registration is within the tolerance limits specified in Rule 25-6.052, Florida Administrative Code. FPL states that it inadvertently calculated the error to be 6.7 percent by including the effect of the bent pusher pointer in the calculation of error, but FPL agreed nevertheless to offer SUSI a refund using the 6.7 percent error figure.

SUSI and FPL could not agree on the amount of the refund due, and our staff asked FPL to re-test the meter with the bent pusher pointer to see if the results were repeatable. FPL re-tested the

meter four times and determined that the resulting percent error was close to the original test error of 3.14 percent.

We believe that using a 6.7 percent error in this case is reasonable for purposes of calculating a refund for this customer. FPL is willing to use the 6.7 percent error and provide a refund on that basis. Also, the meter did have a bent pusher pointer and was over-registering. Even though the additional tests showed the meter was still registering within tolerance, we are not convinced that the bent pusher pointer may not have caused higher readings under actual field conditions.

Refund Time Period and Interest Rate

Rule 25-6.103(1), Florida Administrative Code, states, in pertinent part:

> Whenever a meter is found to have an error in excess of the plus tolerance allowed in Rule 25-6.052, the utility shall refund to the customer the amount billed in error . . . for one half of the period since the last test, said one half period shall not exceed twelve (12) months; except that if it can be shown that the error was due to some cause, the date of which can be fixed, the overcharges shall be computed back to but not beyond such date based upon available records.

SUSI claims that the meters have been in error since initial calibration and there is no physical mechanism that will cause the meters to over-register apart from miscalibration. FPL responds that although it does not know precisely the physical mechanism that will cause over-registration, utility data show that Type 1V meters can both over-register and under-register through time.

From the information received we have not been able to determine that the meter error for any of the meters in question was due to a cause the date of which can be fixed. Because of that uncertainty, we believe it is reasonable to limit any refunds to bills rendered during the 12-month period preceding the date the meter was removed.

Interest should be assessed on the refunded amount and should be calculated in accordance with Rule 25-6.109, Florida Administrative Code. During the period the meters were over-registering, the amount of money over-billed was unavailable for use by the customers and represents a cost to the customers that should be recouped in part through interest on the over-billed amount. All refunds to current customers should be paid with interest at the 30-day commercial paper rate as specified in Rule 25-6.109. Subsection (4) of Rule 25-6.109 sets forth the manner in which interest shall be calculated. Subsection (5) of the rule states that for customers still on the system, the refund shall be made on the bill, or if the customer is no longer on the system, the utility shall mail a check to the last known billing address of the customer. Subsection (6) of the rule requires the utility to provide monthly reports on the status of the refund. If any refunds remain unclaimed at the end of the refund period, the utility shall suggest a method of disposing of any unclaimed amounts, subject to Commission approval.

All refunds to current customers, with interest, will be in the form of a credit on the customers' bills beginning no later than the first billing cycle day of the second month after the Order requiring the refunds becomes final. Refunds to former customers shall be completed as expeditiously as reasonably possible.

Rate Schedules for Refund Calculation

To calculate the refunds, FPL should use the same rate schedule under which the accounts were billed through the defective meters. Under FPL's rate structure, accounts whose monthly demands are between 21 and 499 kilowatts (kW) are generally required to take service under the General Service Demand (GSD-1) rate schedule. To qualify for service under the lower General Service Large Demand 1 (GSLD-1) rate, accounts must have monthly billing demands of at least 500 kW. As a result, when the historic billing demands of some accounts are adjusted downward to correct for over-registering thermal demand meters, it appears that the accounts may not have qualified for service under the GSLD-1 rate schedule under which they were originally billed.

FPL has suggested that it may be appropriate to calculate refunds based on the rate that would have applied (i.e., the GSD-1 rate) had the meters been operating properly. Because the GSD-1 rate is higher than the GSLD-1 rate, such an adjustment results in lower refunds for the affected accounts. We do not believe such an adjustment is appropriate. Although a different rate schedule may have been applied had the metering error not occurred, the adjustment unfairly penalizes customers who were billed on the incorrect rate through no fault of their own. It is the utility's responsibility to ensure that its meters are operating properly and that customers are billed under the correct rate schedule based on their monthly demand. For these reasons, we find that FPL shall apply the same rate schedule under which accounts were originally billed through the defective meter to calculate any refunds due.

CONCLUSION

For the reasons explained above we resolve the complaints in this docket as follows. We find that the appropriate method to determine the meter error from which refunds should be calculated is to use the absolute percentage error based upon the average calculation for the lowest and highest demand during the refund period. We also find that FPL shall not be required to backbill single account customers using Type 1V meters that under-registered billing demand, unless there is evidence of meter tampering or fraud. FPL shall aggregate the bills of customers with multiple accounts and refund any net over-billing. FPL shall not backbill customers with multiple accounts that show net under-billing. FPL shall not aggregate multiple accounts of customers who requested meter tests for specific meters before October 22, 2002. With respect to the calculation of a refund for the specific meter identified in SUSI's January 24, 2003, complaint on behalf of one Target account, we find that 6.7 percent is the appropriate percent error to calculate a refund for that meter. We find that the refunds shall be calculated over the 12-month period prior to removal of the Type 1V meter for all meters that over-registered demand outside of tolerance, including the meter for the specific Target complaint filed on January 24, 2003. Finally, we find that FPL shall use the same rate schedule under which the accounts were billed through the defective meters to calculate the refunds. Interest shall be assessed on the amounts to be refunded and

calculated in accordance with Rule 25-6.109, Florida Administrative Code.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the complaints by Southeastern Utility Services, Inc., against Florida Power & Light Company concerning meter error in Type 1V thermal demand meters are resolved as set forth in the body of this Order. It is further

ORDERED that the provisions of this Order, issued as proposed agency action, shall become final and effective upon the issuance of a Consummating Order unless an appropriate petition, in the form provided by Rule 28-106.201, Florida Administrative Code, is received by the Director, Division of the Commission Clerk and Administrative Services, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on the date set forth in the "Notice of Further Proceedings" attached hereto. It is further

ORDERED that in the event this Order becomes final, this docket shall be closed.

By ORDER of the Florida Public Service Commission this 19th day of November, 2003.

BLANCA S. BAYÓ, Director
Division of the Commission Clerk
and Administrative Services

By: Marcia Sharma
Marcia Sharma, Assistant Director
Division of the Commission Clerk
and Administrative Services

(S E A L)

MCB/WCK

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing that is available under Section 120.57, 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 will be granted or result in the relief sought.

Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The action proposed herein is preliminary in nature. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, in the form provided by Rule 28-106.201, Florida Administrative Code. This petition must be received by the Director, Division of the Commission Clerk and Administrative Services, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on December 10, 2003.

In the absence of such a petition, this order shall become final and effective upon the issuance of a Consummating Order.

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