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December 16, 2004

**VIA HAND DELIVERY**

Ms. Blanca S. Bayó, Director  
Division of the Commission Clerk and  
Administrative Services  
Florida Public Service Commission  
Betty Easley Conference Center  
2540 Shumard Oak Boulevard, Room 110  
Tallahassee, FL 32399-0850

RECEIVED-FPSC  
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COMMISSION  
CLERK

Re: Docket No. 030623-EI

Dear Ms. Bayó:

Enclosed for filing on behalf of Florida Power & Light Company ("FPL") are the following documents:

1. Original and fifteen copies of FPL's Posthearing Brief; and
2. A disk containing a copy of the Posthearing Brief.

CMP \_\_\_\_\_  
COM 3  
CTR \_\_\_\_\_  
ECR \_\_\_\_\_  
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Please acknowledge receipt of these documents by stamping the extra copy of this letter "filed" and returning the copy to me. Please contact me if you have questions regarding this filing.

Thank you for your assistance with this filing.

Sincerely,



Kenneth A. Hoffman

KAH/rl  
Enclosures

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FPSC-COMMISSION CLERK

**BEFORE THE PUBLIC SERVICE COMMISSION**

In re: Complaints by Ocean Properties, Ltd., ) Docket No. 030623-EI  
J. C. Penney Corp., Target Stores, Inc., and )  
Dillard's Department Stores, Inc. against ) Filed: December 16, 2004  
Florida Power & Light Company concerning )  
Thermal demand meter error. )

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**FLORIDA POWER & LIGHT COMPANY'S  
POSTHEARING BRIEF**

Florida Power & Light Company ("FPL"), by and through its undersigned counsel, hereby files its Posthearing Brief.

**INTRODUCTION**

This is a case about a former FPL employee, George Brown, who formed a consulting company and set about soliciting FPL customers in an effort to extract substantial refunds from FPL. After leaving FPL, Mr. Brown formed a consulting company known as Southeastern Utility Services, Inc. ("SUSI") which has entered into contingency fee arrangements with the four customers in this proceeding. Although Mr. Brown refused to disclose the specific terms of those arrangements, the record is clear that Mr. Brown and his partner, Mr. Gilmore, have a personal financial stake in the outcome of this case. The higher the refunds ordered by the Commission, the more money they make. (Tr. 153, 192, 201, 392).

Mr. Brown admits that on more than 100 occasions he has advised his clients, FPL customers, on different methods to "spike" their meters in order to qualify for a lower kWh rate and escape a higher minimum kW demand charge. (Tr. 194-7). While this scheme obviously benefits Mr. Brown's clients, the losers are the remaining body of FPL ratepayers who bear the cost of kW

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FPSC-COMMISSION CLERK

demand costs that are inappropriately transferred from Mr. Brown's clients to FPL's general body of ratepayers.

The meters at issue in this docket are known as 1V thermal demand meters. In early 2002, Mr. Brown contacted FPL on behalf of a client, an FPL customer, alleging that the customer's meter was over-registering demand due to the effect of the sun. The resulting investigation and testing of this meter prompted FPL to conduct further tests to determine whether the effect of the sun or heat was a widespread problem within its thermal demand meter population. Those tests indicated no such problem due to the effects of heat. As part of its investigation, FPL conducted a statistically valid sampling test of 50 1V meters. The demand portion of this sample exceeded the allowed level of percent defective which was the first time that a population of FPL meters had failed a sampling test. (Tr. 32-34).

The Commission's general counsel approved FPL's request to remove the approximate 3,900 1V meters. As part of this approved process, FPL provided written notice to all affected 1V meter customers regarding the removal and testing of the meters. By the end of March 2003, all 1V meters had been removed and initially tested. (Tr. 36; Ex. 1, DB-1).

FPL tested all of the approximate 3,900 1V meters at either 40% or 80% of full-scale depending on the face plate of the meter when tested. Because Mr. Brown raised objections to a test at 40% and requested that the meters of his clients be tested at 80%, FPL, in order to give all customers every benefit of the doubt, retested at 80% of full-scale all meters that had been originally tested at 40% and had over-registered. FPL was not required to conduct this second test under the Commission's rules and its Commission-approved Test Procedures and Test Plans for Metering Devices ("Test Procedures"). Of the approximate 3,900 1V meters tested, approximately 83% tested

within the 4% tolerance level set forth in Rule 25-6.052(2)(a), 11% under-registered out of tolerance and 6% over-registered out of tolerance. (Tr. 37-38, 40-41, 287-8, 305-6; Ex. 1 (DB-3)).

FPL then took all of the test results and determined which meters had over-registered beyond the 4% tolerance level and therefore qualified for a refund. For customers whose meters were retested at 80% of full-scale, FPL utilized the test results that provided the customer with the greatest benefit. (Tr. 46). FPL assembled a group of individuals who reviewed the billing history for each account to determine if any account indicated a fixed date and a fixed cause for meter over-registration beyond the presumed one-year period under the Commission rule. FPL's analysis did not indicate that any of the 1V meters qualified for refunds beyond one year even when the information submitted by Mr. Brown to FPL was taken into account. (Tr. 87-8).

Because the 1V meters had failed as a population, and in an attempt to remove any perception of unfairness, FPL established a settlement mechanism for customers qualifying for refunds that exceeded the requirements of the Commission's rules. (Tr. 40-41, 46-47; Ex. 9). This settlement mechanism was offered to Mr. Brown on behalf of his clients, but he rejected it in order to pursue multi-year refunds in this docket before the Commission. (Tr. 94-95, 223-4; Ex. 9).

Following the Commission's issuance of a Proposed Agency Action Order ("PAA Order") approving FPL's settlement mechanism for refunds,<sup>1</sup> the formal proceeding in this docket was initiated when SUSI and its Customer clients protested the PAA Order with respect to 14 of the 28 meters specifically identified in the PAA Order.<sup>2</sup>

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<sup>1</sup>See Order No. PSC-03-1320-PAA-EI issued November 19, 2003.

<sup>2</sup>Target Stores, Inc. did not protest the Commission's action in the PAA Order with respect to the Target Boca Raton meter. Target's attempt to amend its Petition to include the Target Boca Raton meter was denied. See, Order Nos. PSC-04-0934-PCU-EI and PSC-04-1160-PCO-EI.

## ARGUMENT

**ISSUE 1:** Pursuant to Rule 25-6.052, Florida Administrative Code, what is the appropriate method of testing the accuracy of the thermal demand meters subject to this docket?

**FPL:** \*The appropriate method is to test kW demand at any point between 25% and 100% of full-scale value. The kWh portion should be tested at light, heavy, and lagging loads. Future testing should utilize a test point reflecting the customer's previous actual 24 month historical average percentage of full-scale demand.\*

The appropriate methods of testing the accuracy of the watt-hour and demand portions of the thermal demand meters subject to this docket are set forth in Rule 25-6.052, Florida Administrative Code, and FPL's Commission-approved Test Procedures. With respect to the kWh/watt-hour portion of the meter, Rule 25-6.052(1) requires that this portion of the meter be tested in accordance with Rule 25-6.058. The watt-hour portion of each of the meters in this docket was tested in accordance with Rule 25-6.058(3)(a) by utilizing the test results derived from the weighted average of the three meter tests: one test at light load (10% rated test ampere) and two tests at heavy load (one test of 100% power and another test at 50% lagging power factor). The weighted average of these test results was then compared to the standard meter to obtain error value. Pursuant to Rule 25-6.052(1), meter test results with readings greater than 102% (meters over registering by more than 2%) were then eligible for refunds. (Tr. 44). This methodology is also set forth in FPL's Commission-approved Test Procedures. (Ex. 1, DB-3).

With respect to the kW demand portion of the meter, Rule 25-6.052(2)(a) provides that "[t]he performance of a demand meter shall be acceptable when the error of registration does not exceed four percent in terms of full-scale value, when tested at any point between 25 percent and 100 percent of full-scale value." (Emphasis added). FPL's Test Procedures similarly provide that

"[d]emand is tested between 25% and 100% of full scale." (Ex. 1, DB-3).<sup>3</sup> All of the initial tests on the 14 meters in this docket were conducted in accordance with Rule 25-6.052(2)(a) and (4) and FPL's Test Procedures. Eight of the high scale meters initially tested at 40% of full-scale value were tested a second time at a load that represented 80% of full-scale and only then tested outside the Commission-established limits. (Tr. 305-6; Ex. 1, DB-4).

Accordingly, Mr. Brown's claim that FPL did not comply with applicable Commission rules in the testing of the demand portion of these meters is both inaccurate and irrelevant to the issues of refund eligibility and refund calculations. Mr. Brown's reliance on the recommendations in the ANSI Standards or correspondence from Landis & Gyr is misplaced. (Tr. 168-69; Ex. 7, GB-1 and GB-4). The ANSI Standards for demand testing are consistent with the Commission's rules, including FPL's Test Procedures approved pursuant thereto,<sup>4</sup> and, in any case, as emphasized by Mr. Malemezian and Mr. DeMars, FPL is required to comply with the Commission's rules, including the FPL Test Procedures approved pursuant to such rules -- not the ANSI standards or the Landis & Gyr recommendations -- in testing the 1V thermal demand meters at issue in this proceeding. To the extent there is any conflict, the Commission rules take precedence. (Tr. 341-2; Ex. 17 at 65-67).<sup>5</sup> Mr. Brown's contentions as to the applicability of the ANSI standards are irrelevant because FPL and Mr. Brown agreed, as a customer accommodation, to utilize the 80% of full-scale test results for

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<sup>3</sup>As confirmed by Staff Witness Matlock, if a meter is tested at any point between 25% and 100% of full-scale and registers less than a 40% error in terms of full-scale value, a second test is not required. (Tr. 287-88).

<sup>4</sup>Tr. 301, 322.

<sup>5</sup>Compare Rule 25-6.052(3)(c) which expressly incorporates applicable ANSI Standards into the testing requirements for totally solid-state meters which are not the type of meter in this docket.

the purposes of determining eligibility for refunds and used those test results in developing its refund calculations.

FPL also has provided for consideration a modification to its process for implementing customer-requested thermal demand meter tests. This process utilizes a customer's previous 24-month actual historical average percentage of full-scale as the test point rather than, for example, the 40% or 80% of full-scale used by FPL to perform annual sampling tests. However, no meter test would be performed at less than 40% of full-scale. FPL believes that this method more closely resembles what the meter actually experienced in the field. (Tr. 42-43). It also provides a more accurate and realistic picture of a customer's typical usage making it a more appropriate test point as compared to using the maximum value experienced during the actual twelve months in the refund/backbill period which was an alternative suggested by Mr. Matlock. (Tr. 272, 274, 334-335; Ex. 15, SWM-2).

Finally, FPL emphasizes that the methodology that it proposes rejects the arbitrary attempts by the Customers to impose as high a testing point as possible. (Tr. 169; Ex. 7, GB-3). As previously noted, FPL retested approximately 700 meters that indicated any level of over-registration based on the 40% of full-scale test. These meters were retested at 80% of full-scale. Approximately 100 of these 700 meters actually went from over registering to under registering when tested at 80% of full-scale. Others went to a higher level of over registration while others that had initially over registered stayed within the 4% level of tolerance. (Tr. 78-79). In short, in the real world, the data goes both ways and there is no assurance that a second test at a higher level of full-scale results in an increased level of over registration.<sup>6</sup>

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<sup>6</sup>See also, Ex. 17, at 127-30; Ex. 20, at 104-06.

**ISSUE 2:** Pursuant to Rule 25-6.058 and 25-6.103, Florida Administrative Code, what is the appropriate method of calculating customer refunds for those thermal meters which test outside the prescribed tolerance limits?

**FPL:** \*For kWh: take the average meter error per the meter test and apply the same methodology. For demand: take the error per the meter test stated in terms of full-scale value, calculate adjusted kW demand and apply tariffed rates to the adjusted billing determinants.\*

Rule 25-6.103(1) addresses fast meters. The rule provides, in pertinent part, that when a meter tests 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. Under Rule 25-6.103(3), the amount billed in error and the figure to be used for calculating the refund for a fast meter is the percentage of error as determined by the test. Rule 25-6.058 describes the method that should be used to determine the average meter error from the meter test result for the kWh portion of the meter. For the demand portion of meter, the meter error from the meter test result is stated as percentage of full-scale value pursuant to Rules 25-6.103(3), Rule 25-6.052(2)(a) and FPL's approved Test Procedures.

There is no debate in the record regarding the methodology for calculating customer refunds for the kWh portion of the meter. The appropriate method under Rule 25-6.058(3) and the method utilized by FPL was to take the weighted algebraic average of error at light load (approximately 10% weighted test amperes) given the weight of 1, the error at heavy load (approximately 100% rated test amperes) and 100% power factor given a weight of 4, and a second test at heavy load (approximately 100% rated test amperes) and 50% lagging power fact given a weight of 2. (Tr. 44-45). As explained by FPL witness Morley, the meter error is then used to develop adjusted billing determinants for kWh usage that remove the effects of the meter error. The applicable FPL tariffed rates and charges are then applied to the Customer's adjusted billing determinants. (Tr. 109-110).



Ms. Morley provided an example of the application of this methodology in her testimony. (Tr. 112-113).

The debate in the record focused on the appropriate methodology for calculating the error to be used in calculating refunds for the demand portion of the meter. The issues raised by the evidence are discussed below.

As indicated above, Rule 25-6.103(3) states that in calculating the amount of the refund, the figure to be used "shall be that percentage of error as determined by the test." Mr. Brown advocated the use of a methodology that would compare the difference in the kW demand billed twelve months before the thermal demand meter was replaced with the kW demand billed after the meter was replaced. (Tr. 118, 205; Ex. 6, GB-5). Mr. Brown conceded that there is nothing in the Commission rules that authorize the use of this methodology. (Tr. 205). To overcome the lack of authority, the Customers petitioned for a waiver of Rule 25-6.103(3). That petition was denied pursuant to Order PSC-04-1167-PAA-EI issued November 23, 2004.

Mr. Brown's presentation of his before and after billing differential (Ex. 6, GB-5) is replete with inconsistencies, selective use of data and other deficiencies. First, the comparison is based on a comparison of kW billing demand experienced 12 months before the meter replacement with a post replacement period which ranges anywhere from 16 to 22 months depending on the meter. The inconsistency in pre- and post-replacement data weighs certain months more than others in comparing the change in demand. (Tr. 118-19). Second, the data unrealistically assumes, as admitted by Mr. Brown, that each Customer's change in demand was the same for every year prior to the meter replacement. (Tr. 118-19, 208-9). Third, the data in Ex. 6, GB-5 provides no information indicating how much of the change in kW demand is due to weather, seasonal variations,

conservation, changes in operations or changes in the Customer's equipment. Fourth, Mr. Brown's application of the data is selective, inconsistent and arbitrary.<sup>7</sup>

Finally, consideration of the ramifications of utilizing the kW demand differential methodology rather than the Commission required meter test results, demonstrates why the kW demand differential methodology is ill-advised and not captured in the Commission's rules. Assume hypothetically that: (1) in years 1 through 3, a customer averaged 650 kW; (2) in year 4, a customer experienced 600 kW; and (3) in year 5, the thermal demand meter over-registered 5%, was replaced and the customer experienced 665 kW due to more extreme weather. Under this scenario, the customer would receive no refund. If you take the same hypothetical and substitute a figure of 300 kW for year 4 due, for example, to the utilization of more efficient equipment and operations, this second customer would get a 50% refund.

In sum, Mr. Brown's presentation and advocacy for the kW demand billing differential as the input into the refund calculation is not authorized by Commission rule, is replete with inconsistent and selective use of data and could potentially lead to absurd results.

The next issue concerns whether the "percentage of error as determined by the test" under Rule 25-6.103(3) is to be interpreted as a percentage of the full-scale value of the meter or as a

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<sup>7</sup>See, e.g. data in Ex. 6, GB-5 depicting kW demand before and after the meter replacement for the Target store at 1901 Congress in Boynton Beach. The average kW demand shown on the graph before the meter was changed is based on 12 months of data while the average kW demand after the meter change is based on 18 months of data. The graph purports to show the percentage change in kW demand from the same months for the prior year. However, a close look reflects that, for some months, Mr. Brown compared demand for the same month one year prior while for other months he compared for the same month two years prior. For example, the month of May 2004 shows a drop in demand of 27.90%. But that is a comparison of the May 2004 figure of 398 kWd to the May 2002 figure of 552 kWd - - not to the lower May 2003 figure of 490 kWd. Yet, for other months, Mr. Brown compared the post replacement month with the same month one year prior if it showed a larger drop in kW demand.

percentage of the meter test point. Although Mr. Brown's refund calculations in the record are based on the before and after kW demand billing differential, and not as a function of the standard meter test point (Tr. 204-5), the Customers still sought a waiver of Rule 25-6.103(3) to apply that methodology. That request was denied. Staff Witness Matlock advocated the use of the test point error for prospective purposes and recommended that the meters in this docket be retested utilizing the Customers' historic 12 month peak demand as the test point and applying the test point percent errors to the bills for the refund period. (Tr. 274).

Mr. Brown's approach on this issue again reflects his desire for larger refunds. Mr. Brown asserts that the impact on the customer with an over-registering meter is more accurately represented by utilization of the test result at the meter test point to calculate the error. When compared to expressing the error as a percentage of full-scale as indicated by Rule 25-6.052(2)(a) and FPL's Test Procedures, Mr. Brown's approach would result in a larger refund. (Tr. 162-163). Mr. Matlock takes a more even handed approach and advocates the use of the test point percentage error for both over-registering and under-registering meters. (Tr. 273). Of course, because FPL had more than twice as many under-registering 1V meters as over-registering 1V meters, if FPL had not implemented its settlement mechanism (Exhibit 9) and strictly applied the rules to all customers, backbills for FPL customers would have been substantial for the 1V meter customers. In considering this issue, the Commission should keep in mind that adoption of Mr. Brown's suggested methodology could lead to increased backbills in future meter disputes because testing issues typically involve both over-registering and under-registering meters.

FPL maintains that applicable Commission rules and FPL's Test Procedures require the use of the meter test error expressed as a percentage of full-scale value. Mr. Malemezian, who was

extensively involved in the rulemaking process in the mid-1990s when the Commission adopted substantial amendments and revisions to its meter testing rules, spoke to this point in his testimony.

(Tr. 301-2) Mr. Malemezian stated:

In the case of the demand meters, the 'test' requirement of Rule 25-6.103(3) is provided by Rule 25-6.052(2), which states that the error of registration is defined in terms of full scale value. Determination of demand meter error expressed in terms of full scale value has been in the rules and ANSI standards for at least 40 years. Therefore, the literal interpretation of Rules 25-6.103(3) and 25-6.052(2) require a calculation of a percentage of error in terms of full scale value and not in terms of '...the correct (true) value...' as proposed by Mr. Matlock....As Mr. Matlock states on page 7, line 21, through page 9, line 3 of his direct testimony, Rule 25-6.058 does not specifically provide a method to determine the amount billed in error for demand meters. However, at the time Rule 25-6.058 was last amended on 5/19/97, the associated rulemaking process provided a ready opportunity to include methods(s) for billing calculations associated with demand errors, had they been felt necessary. Since no such effort was made in amending Rule 25-6.058, one can conclude that the parties involved in the 1997 rulemaking considered the provisions of Rule 25-6.052(2) to be the appropriate method used for determination of the amount billed in error on demand meters. Rule 25-6.052(2) requires calculation of percentage of error in terms of full scale value.

(Tr. 332-3).

Mr. Malemezian's interpretation and application of applicable Commission rules support a determination that the meter test error for the demand portion of the meter should be expressed as a percentage of error in terms of full-scale value. Indeed, that is the only way that the demand error is expressed in the Commission's rules and FPL's Test Procedures. Mr. Brown's desired use of the error at the meter test point to express the percentage test error is not expressly authorized by the Commission rules and SUSI's request for a rule waiver has already been denied. Moreover, adoption of the error at the meter test point would lead to inconsistent application of Rule 25-6.052(2) since refund eligibility would be determined by the meter test result expressed as a percentage of full-scale value while calculation of the refund amount would abandon that methodology and substitute the

error at the meter test point. Finally, FPL is bound to follow its Commission approved Test Procedures. Those procedures specifically describe the test error for the demand portion of the meter “in terms of full-scale registration.” See Ex. 1, DB-3.

In conclusion, FPL’s methodology for calculating refunds for the meters in this docket which tested outside the prescribed tolerance limits is consistent with applicable Commission rules. Rule 25-6.058 provides the methodology that was utilized by FPL for the kWh portion of the meter. Rules 25-6.103(3) and 25-6.052(2)(a) and (4) and FPL’s approved Test Procedures require the use of the meter test result expressed as a percentage of full-scale value to derive the meter error and ensure consistency in the refund eligibility and refund calculation process. These meter test results were appropriately utilized by Ms. Morley in calculating refunds based on the amount billed in error as determined by the meter test results as required by Rule 25-6.103(3). (Tr. 124).

**ISSUE 3:**     **Should the customers in this docket be treated the same way in which FPL treated other, similarly situated customers, for the purposes of determining the percentage of meter over-registration error?**

**FPL:**            \*No. The percentage of meter over-registration error should be determined pursuant to Rule 25-6.103(3), F.A.C. The Customers in this docket rejected FPL’s offer to pay one-year refunds using a kW demand billing differential to calculate the error and, instead, chose to seek multi-year refunds.\*

No. The Commission should determine the percentage of meter over-registration error pursuant to Rule 25-6.103(3), Florida Administrative Code. Mr. Brown complained that FPL was treating his clients in an unfair and discriminatory fashion because FPL offered other customers whose meters are included in this docket a settlement mechanism which went beyond the requirements of Rule 25-6.103(3). (Tr. 175-6). The record is clear that FPL offered all customers, including those represented by SUSI in this docket, the higher of the meter test result or a kW demand billing differential reflecting the actual percentage difference in monthly demand readings

of the newly installed electronic meter compared to the same months of the previous year's 1V meter readings. The settlement mechanism also included a one year refund. Mr. Brown's complaint rang hollow when he conceded on cross-examination that FPL had made this very same offer to him on behalf of his clients who are the Customers in this docket and he rejected it in favor of pursuing multi-year refunds and increased personal financial benefit. (Tr. 47, 94-95, 223-4; Ex. 9).

**ISSUE 4:      **What rate schedule should be applied in calculating customer refunds?****

**FPL:**            \*The rate schedule that would apply to the Customer's kW demand if the Customer's meter had registered zero error.\*

The rate schedule that should be applied in calculating customer refunds is the tariffed rate schedule that would apply to the Customer's kW demand if the Customer's meter had registered zero error. The appropriate tariffed rate is applied in the refund calculation to the adjusted billing determinants. Ms. Morley explained that, in order to undo the effects of the meter error, the correct rate to be applied is the rate schedule that applies to the level of demand after adjustment for the meter test error. (Tr. 110) Ms. Morley emphasized that the purpose and goal of the billing adjustment should not be to create a financial gain for the affected customer and, thus, the appropriate methodology would be to apply the rate schedule applicable had no meter error occurred. (Tr. 111). Ms. Morley also emphasized that this methodology would apply equally to under-registering meters. (Tr. 111-112).

Mr. Brown disagrees on this issue. As Mr. Brown notes, this issue applies to only one meter in the docket, a J.C. Penney's meter, account number 90964-37216. (Tr. 184). In the case of the J.C. Penney's meter, the meter over registered demand at a level above 500 kW thereby qualifying the meter for the lower kWh rate applicable under the GSLD-1 rate schedule. Mr. Brown asserts that the refund calculation should incorporate the lower kWh rate under the GSLD-1 rate schedule

thereby producing a higher refund. In support of this contention, Mr. Brown argues that FPL allegedly never made J.C. Penney aware of its opportunity to contract for the GSLD-1 rate schedule so it would be unfair to adjust its billing to force it to pay the higher energy charges under the GSD-1 rate schedule. (Tr. 185).

Mr. Brown's contentions are without merit. First, Mr. Brown fails to recognize that Ms. Morley's calculation of the one year refund for this J.C. Penney's account is based on the GSD-1 rate for only one of twelve months and that is the final month of the refund period. (Ex. 4, RM-3, part 3 of 12). Further, on cross examination, Mr. Brown conceded that this J.C. Penney's account has been on the GSD-1 rate since September 2003 and has not sought to contract up to the GSLD-1 rate to secure the lower kW rate. (Tr. 225).

**ISSUE 5: Pursuant to Rule 25-6.103, Florida Administrative Code, what is the period for which refunds should apply?**

**FPL:** \*Customers have failed to meet their burden of demonstrating the fixed date of the cause for the error resulting in over-registration for each meter at issue in this proceeding. Accordingly, under Rule 25-6.103(1), F.A.C., the period for which any Commission-ordered refunds should apply is one year.\*

The resolution of this issue is governed by Rule 25-6.103(1). That rule authorizes a refund beyond a 12 month period for a meter that registers outside of the tolerance allowed in Rule 25-6.052(2)(a) only 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.

The rule establishes a default mechanism of up to a one year refund except where it can be shown that the error in the meter was due to a specific cause and the date of the occurrence of that cause can be fixed. As simplified by Staff witness Matlock, "This rule does not provide a means for

making refunds for periods greater than 12 months unless a meter's inaccuracy can be traced to a specific cause and a specific time." (Tr. 273).

As the Petitioners seeking affirmative relief in the form of multi-year refunds, the Customers bear the burden of proof to establish by a preponderance of competitive and substantial evidence that the meter error reflected in the most recent test results "was due to some cause, the date of which can be fixed..." See, e.g., Florida Department of Transportation v. J.W.C. Co., Inc., 396 So.2d 778, 788 (Fla. 1st DCA 1981) citing Balino v. Department of Health & Rehabilitative Services, 348 So.2d 349, 350 (Fla. 1st DCA 1977)("burden of proof...is on the party asserting the affirmative of an issue before an administrative tribunal."); In Re: Complaint of Mr. Thomas R. Fuller against Florida Power Corporation Regarding High Electric Bills in Orange County, Order No. PSC-96-0483-FOF-EI issued April 5, 1996 (customer has burden of proof in over charge proceeding and "must show by a preponderance of the evidence that he was overcharged").<sup>8</sup>

As demonstrated below, the Customers have failed to meet their burden of proof and have not otherwise established entitlement to multi-year refunds. The Customers base their position on rank, unsupported speculation that the meters at issue were miscalibrated by FPL prior to the time that they were placed into service in the early to mid-1990s. Mr. Brown readily conceded on cross examination that he asserted his miscalibration theory back in 2002 around the time the meters at issue were being tested by FPL. (Tr. 214-15). In other words, Mr. Brown's miscalibration theory was communicated to FPL long before any depositions in this docket were taken and before any evidence of FPL's meter testing and calibration procedures had been disclosed. (Tr. 220). He formulated and was advocating a miscalibration theory more than a year before he had any

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<sup>8</sup>96 F.P.S.C. 4:120 at 125.



discussions with Mr. Smith educating him on the components of a thermal demand meter and the intricacies of how thermal demand meters work. (Tr. 220-221). As he readily conceded on cross examination, from the very beginning back in 2002 before this docket was even opened, Mr. Brown took a negotiating position with FPL demanding substantial multi-year refunds based on the unsupported theory that all of the meters had been miscalibrated. (Tr. 221). Of course, no settlement was reached leaving Mr. Brown and his subsequently retained witness, Mr. Smith, in the position of attempting to substantiate a theory - - that all of the meters were miscalibrated before being placed into service - - that never had any basis in fact.

Constrained by his admitted lack of experience and qualifications to render opinions on the design, operation or calibration of thermal demand meters, Mr. Brown attempted to support his miscalibration theory by offering the following opinion to the Commission:

Because of the design of these meters, and the method of operation, there is virtually no physical mechanism that can result in these meters gradually, over time, over-registering demand.

\* \* \*

Therefore, both theory and practice indicate that the thermal demand meters in this docket do not gradually, over time, over-register demand. Due to the extent that meter performance changes over time, friction and other similar effects can only cause the meter to under-register. Thus, for meters that are tested and are found to over-register demand, the only plausible explanation is that the meters were not correctly calibrated and have been over-registering since the last meter calibration.

(Tr. 158).

Mr. Brown's opinion carries no weight. By his own admission, Mr. Brown does not have a college degree. He is not an electrical engineer. He is not an expert in the area of thermal demand meters. He is not an expert in the design of thermal demand meters. He is not an expert on the characteristics of thermal demand meters nor is he an expert in the testing and calibration of a thermal demand meter. In fact, it was not until after his testimony was filed and he was driving up

to Tallahassee for his deposition that he first gained some in-depth understanding from Mr. Smith as to how a thermal demand meter works. (Tr. 142-144).

**Mr. Brown's opinion should be rejected by the Commission.** He clearly lacks the qualifications and expertise to speak to the design of thermal demand meters, the various causes of meter over-registration or under-registration, and/or the sufficiency of meter testing and calibration practices. Mr. Brown's unsupported opinion is obviously colored by his personal financial stake in the outcome of this proceeding.

The Customers also presented Mr. Smith to support their miscalibration theory. Mr. Smith testified that "the most likely reason a thermal demand meter would overregister or read high is due to error in calibrating the meter prior to placing it into service." (Tr. 233). When asked for the basis for his opinion, all Mr. Smith could offer was that a thermal demand meter "does not have mechanical parts that are likely to cause the meter to over-register gradually over time. However, the process of calibrating a meter, which involves human manipulation, can result in calibration errors that can cause the meter to either over-register or under-register if miscalibrated." (Tr. 233).

Mr. Smith's unsupported opinion and speculation should be rejected. Although Mr. Smith states in his testimony that he worked for the manufacturer of the meters at issue, Landis & Gyr, he actually worked for Landis & Gyr's predecessor, Duncan.<sup>9</sup> While at Duncan, Mr. Smith designed, built and repaired test equipment. The only meter testing he performed at Duncan was for quality control of the test equipment such as a test rack. He did not perform meter calibration and did not work as a meter calibrator. (Tr. 253). After his departure from Duncan, he worked in other

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<sup>9</sup>Mr. Smith left the employ of Duncan in 1972. Landis & Gyr purchased Duncan in 1976. (Tr. 231, 252).

positions, none of which involved the testing and calibration of thermal demand meters. (Tr. 231). Following his retirement in 1995, he has not performed any work on thermal demand meters prior to his agreement to testify in this proceeding. (Tr. 252).

The Customers bear the burden of demonstrating by the preponderance of competent substantial evidence that the meters in this docket over-registered demand because they were allegedly miscalibrated when tested prior to being placed in service in the early to mid 1990s. The unsupported conclusions of Mr. Smith and Mr. Brown fail to carry that burden. Their speculation is not supported by any evidence in this record that the inaccuracy of the specific meters at issue “can be traced to a specific cause and a specific time” as required by Rule 25-6.103(1). Although they devote substantial testimony to allegations that FPL’s meter testing and calibration practices are not consistent with the recommendations of the manufacturer, there is no evidence that any of these alleged deficiencies were perpetrated on any of the meters at issue in this docket. Indeed, as admitted by Mr. Smith, he has no idea who tested the meters at issue in this docket. (Tr. 251). Further, the testimony of Mr. Malemezian, a professional engineer who brings over 26 years of hands-on experience in all aspects of metering, including the testing and calibration of thermal demand meters,<sup>10</sup> irrefutably rebuts the allegations that FPL’s meter testing practices do not comply with the recommendations of the manufacturer. Finally, as Mr. Malemezian explained, based on his experience, expertise and intervention in hundreds of investigations involving problems and issues with the accuracy of thermal demand meters including 1V meters, the characteristics of the various components of thermal demand meters can change over time and cause either under- registration or over-registration.

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<sup>10</sup>Tr. 297-303, 371-2.

The lack of support for the Customers' miscalibration theory is exacerbated by the lack of competent evidence supporting the specific multi-year refunds sought by Mr. Brown. Specifically:

- (1) With respect to the chart presented on page 3 of his direct testimony (Tr. 155):
  - a. Meter 1V5885 is not part of this docket.<sup>11</sup>
  - b. The "Installed Period" dates are hearsay evidence not supported by independent verifiable documentation from FPL or the Customers.
  - c. With respect to Meter 1V5871D the test record included in Exhibit 6 (GB-1) does not reflect a 6.7% error for this meter. The meter test report reflects a meter test error of 3.14% - - within the permissible 4% limit under Rule 25-6.052(2)(a).
- (2) With respect to the chart of data provided by Mr. Brown on pages 7 and 8 of his direct testimony (Tr. 159-160):
  - a. Meter 1V5885 is not part of this docket.
  - b. The data under the "Installed Period" column is hearsay information not supported by independent documentation from FPL or the Customers.
  - c. There is no last test date even provided for meter numbers 1V52475 and 1V7166D.
  - d. The last test date data is not corroborated by the meter test records in Exhibit 6 (GB-1) for meter numbers 1V5025D, 1V5887D, 1V5871D, 1V52475, 1V52093, 1V7166D and 1V5216D.
- (3) With respect to the charts reflecting refund calculations presented at pages 12 and 14 of his direct testimony (Tr. 164, 166), Meter 1V5885 is not part of this docket.
- (4) The refund calculations reflected in Exhibit 6 (GB-6) are based on estimates and not available records for a number of the meters at issue, in violation of Rule 25-6.103(1).

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<sup>11</sup>See Order No. PSC-04-0934-PCO-EI issued September 22, 2004 and Order No. PSC-04-1160-PCO-EI denying Target's motion for reconsideration.

In short, even if the Customers had presented competent substantial evidence supporting their miscalibration theory, which they did not, there is insufficient reliable, non-hearsay data in the record upon which the Commission could order multi-year refunds for the meters at issue.

The rebuttal testimony of Mr. Bromley and Mr. Malemezian obliterated the Customers' miscalibration theory. FPL's standard practice was to conduct "acceptance testing" for all thermal demand meters upon receipt from the manufacturer before being placed into service. (Tr. 101-2, 313; Ex. 20, at 51-53, 163). In the words of FPL witness Hutchinson, whose duties included conducting acceptance tests on new meters, it was seldom that a new thermal demand meter tested anything over 1% high or low. (Ex. 20, at 44). New meters rarely required calibration. (Tr. 318). The unrefuted testimony of Mr. Bromley and Mr. Malemezian confirm and document that six of the meters at issue in this docket were never calibrated by FPL prior to being placed into service. The meters were purchased new by FPL from Landis & Gyr during the period from 1989-1992. Landis & Gyr one hundred percent tested the meters before they left the factory and they were calibrated to have zero error before they were sent by Landis & Gyr to FPL. Upon receipt by FPL, these six meters were all tested per the acceptance testing procedures described above. These new meters were tested by FPL and found to have zero error. Therefore, no calibration adjustment to these meters was required or made by FPL. As a result, the as-left tests for these 6 meters were also recorded as zero errors (0/0 on the meter test reports). As Mr. Malemezian noted, for the Customers' miscalibration theory to be true, both Landis & Gyr and FPL would have had to have made the identical mistakes, in "both the direction and amount, in their demand meter testing processes. This is an extremely unlikely event and not at all reasonable to assume to have occurred." These six meters were never tested again until late 2002 and/or early 2003 when FPL tested the entire 1V meter population. It was only

then that these meters were tested and over registered out of tolerance. (Tr. 53-54, 313, 368; Ex. 2, DB-5 and DB-6).

As Mr. Bromley described it, Mr. Brown's theory is an all or nothing theory. (Tr. 52). Messrs. Brown and Smith offer the same "evidence" in support of their speculation that all of the meters at issue were miscalibrated. Yet, the unrefuted evidence is that six of the thirteen meters at issue were never calibrated by FPL and yet over-registered during their most recent tests. Since the six meters were never calibrated by FPL, the speculation offered by Mr. Brown and Mr. Smith is not even theoretically possible. In short, their theory must fail. (Tr. 51-52, 60).

Even though the evidence clearly shows that six of the thirteen meters at issue were never calibrated before being placed into service and thereby could not have been miscalibrated, the Customers persisted with their miscalibration theory. The bulk of their testimony in this docket was directed to the assertion that FPL's meter testers did not test and calibrate thermal demand meters in compliance with the recommendations of the manufacturer, Landis & Gyr. The weight of the evidence refutes these assertions. Moreover, there is no evidence in the record that any of these alleged deficient calibration practices were perpetrated on any of the meters at issue. Finally, there is no persuasive evidence that the testing and calibration of any of the FPL meters, let alone the specific meters at issue in this docket, was conducted in violation of a Commission statute or rule.

Neither Mr. Brown, who admitted he is not an expert in the testing and calibration of a thermal demand meter, nor Mr. Smith, who admitted that his prior experience at Duncan did not include testing or calibration of thermal demand meters, were qualified to offer opinions regarding FPL's meter testing and calibration practices. Due to the lack of credentials and expertise, their opinions should be rejected by the Commission.

The assertions of Mr. Brown and Mr. Smith were addressed and rebutted by the analysis and opinions of Mr. Malemezian. Mr. Malemezian's 26 years experience, qualifications and credentials in all aspects of thermal demand meters are unparalleled. He has been responsible for meter engineering and field operations involving activities related to metering. He also served as meter superintendent of Southern Division Meters for FPL in Miami where he managed the daily operations of all Dade County field metering, the meter test shop and FPL's system standard laboratory, the unit which eventually evolved into FPL's present meter technology center. He engaged in frequent and regular discussions with manufacturers of thermal demand meters such as Landis & Gyr, including hundreds if not thousands of investigations of problems and issues concerning the accuracy of thermal demand meters and the long term stability of such meters, and has been actively involved with the development of the ANSI standards for electric meters currently serving on the Editorial Committee responsible for final review of these standards prior to publication. (Tr. 297-301, 360, 371-372). His experience includes numerous investigations into the changes in accuracy and calibration of 1V meters which are the type of meters at issue in this docket. (Tr. 351).

1. The use of test covers. Mr. Brown and Mr. Smith claim that a test cover is required for calibration testing per the Landis & Gyr Bulletin 841 Technical Manual which covers the TMT thermal demand meters. (Tr. 160, 239). That is not a true statement. A plain reading of Landis & Gyr Bulletin 841 reveals that there are two methods for calibrating meters acceptable to Landis & Gyr: one which involves quickly removing the cover and one which involves the use of special test covers. As explained by Mr. Malemezian, FPL has used the first method which entails quickly removing the meter cover, making the required calibration adjustment, replacing the cover, and then

waiting an appropriate time to recheck the adjusted registration. This method is far more efficient and superior for FPL than the option of using test covers. The depositions of meter testers Faircloth and Herbster confirm that they are able to remove the cover, perform the calibration adjustments and return the cover on the meter in 15 seconds or less -- well under the 20 seconds suggested by Landis & Gyr as the preferred time. (Tr. 316; Ex. 10, at 100-01; Ex. 11, at 111-12; Ex. 13, BS-E, at 5).

In addition, it was Mr. Malemezian's opinion that FPL's procedures reflect a closer representation of real world conditions than the process using test covers and that in the early 1980s Landis & Gyr experienced calibration problems created by the use of test covers. The Landis & Gyr statement that the use of test covers improves the efficiencies of the testing and calibration of thermal demand meters is not correct for FPL. The use of test covers would present a logistical nightmare for FPL because FPL has purchased thermal demand meters from numerous manufacturers. (Tr. 316-318).

2. The 45 minute waiting period for stabilization after calibration adjustment are made.

Landis & Gyr Bulletin 841, at page 5, addresses the potential for a second "true up" calibration adjustment after the meter has maintained load for a minimum of 45 minutes and a full-scale calibration adjustment has been made. Bulletin 841 states that "if it is desired to recheck a calibration point after the cover has been removed and replaced, the present load on the meter must remain constant for a minimum of 45 minutes after replacing the cover before a reading is taken." (Ex. 13, BS-E). The procedure employed by FPL's meter testers is to allow the test board to remain energized with a stable load for approximately 10 minutes and make any additional minor calibration adjustment if necessary. (Tr. 319-20).



As explained by FPL witness Hutchinson, who has tested thousands of thermal demand meters, with most of the tests, there is no need to do a potential second adjustment. Under FPL's procedure, a meter tester allows an additional ten minutes to re-establish the stabilization of the meter and allow sufficient time for the meter to properly react to the full-scale calibration adjustment that has just been made. In Mr. Hutchinson's experience, the 10 minutes is a safe period of time to get a proper adjustment on a meter that has already been running for a minimum of an hour and fifteen minutes and has already been adjusted to zero error. In Mr. Hutchinson's words, to the extent the adjustment is even made, it is a "fine tune" adjustment. (Ex. 20, at 64, 96-101).

Mr. Malemezian elaborated on Mr. Hutchinson's statements. As Mr. Malemezian pointed out, at the time of this potential second adjustment, the meter is already very close to zero error and certainly within the two percent accuracy tolerance established by FPL's approved Test Procedures. This additional true-up adjustment is not required under FPL's Test Procedures nor is it required under Landis & Gyr Bulletin 841. Mr. Malemezian also emphasized that the statement in Bulletin 841 reflects a conservative approach by the manufacturer to offset various possible situations where the initial calibration adjustment is not properly performed.<sup>12</sup> (Tr. 319). In fact, in the Electric Metermen's Handbook, an industry publication provided to FPL metermen, the handbook specifically states that "[w]hen the cover is removed to make the load adjustment, it should be replaced as soon as possible and the load should be held constant for an additional five to ten

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<sup>12</sup>In a similar vein, FPL's product engineer for metering products, Jim DeMars, stated in his deposition that he interpreted the 45 minute recommendation in Landis & Gyr Bulletin 841 to be applicable only if the meter cover had been removed for more than 20 seconds during the initial full-scale calibration adjustment. (Ex. 17, at 173).

minutes to enable the temperature to stabilize and verify the reading.” (Ex. 12, at 22 and Ex. 8 to the Deposition of Jim Teachman).

In sum, for the reasons summarized by Mr. Malemezian, the 10 minute period established by FPL is more than adequate for the verification check after a full-scale calibration adjustment has been made. (Tr. 320).

3. Full-scale adjustments are allegedly made without backlash compensation.

Mr. Smith expressed concern that one meter tester with FPL, Mr. Faircloth, made calibration adjustments without backlash compensation. (Tr. 240). As Mr. Malemezian explained, backlash compensation is where the black maximum pointer exerts a very small frictional force on the red indicator pointer as the red pointer drives the black pointer upscale. (Tr. 320). Mr. Malemezian noted that if a full-scale adjustment is made without backlash compensation, the effect would be the possibility of the demand slightly under-registering, and not over-registering, in normal operations in the future. (Tr. 321). Further, Mr. Smith conceded that the backlash compensation issue has very little effect, if any, and cannot be quantified. (Tr. 258-259).

4. Some of FPL’s meter testing is performed at less than 50% of full-scale.

FPL adopts its previous discussion of this issue in this posthearing brief. As noted by Mr. Malemezian, the Commission’s rules and FPL’s Test Procedures take precedence over recommendations or suggestions of the manufacturer or in the ANSI standards. (Tr. 341-2).<sup>13</sup> This

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<sup>13</sup>Mr. Brown states that ANSI and the manufacturer recommend testing at or above 50% of full-scale. (Tr. 170). As Mr. Malemezian points out, Landis & Gyr Bulletin 841, on page 6, states that “...the calibration test point can be made at any point from 50% of full-scale to 100% of full-scale.” The use of the word “can” reflects a preferred range on the part of the manufacturer as opposed to a requirement. (Tr. 322-323).

issue is now moot as it pertains to the meters at issue in this docket because FPL has agreed to use the test results at 80% of full-scale value to determine refund eligibility and to calculate refunds.

5. Alleged Meter Reading Errors

Mr. Smith speculated that a potential error made in reading the standard board meter and the meters under test can influence the accuracy of the test results. (Tr. 237). The evidence does not support this supposition. More importantly, for the meters in this docket, each one of the readings for the reference standard and for the meter under test were agreed to by Mr. Brown and FPL thereby removing this as an issue for this proceeding. (Tr. 328).

6. Tapping the Reference Standard

Mr. Smith testified that some of FPL's meter testers tapped the thermal board standard meter at the end of the one hour test period. (Tr. 238). The record only reflects one FPL meter tester, Mr. Faircloth, who engaged in this practice. While not required, the tapping of a meter is an accepted practice. (Tr. 328-9; see also Ex. 13, BS-E, at 4). There is no evidence in the record that Mr. Faircloth performed the test on the meters at issue in this proceeding and the record is clear that the readings for the reference standard and for all meters in this proceeding were agreed to by Mr. Brown and FPL.

The weight of the evidence in this proceeding overwhelmingly demonstrates that FPL's meter testers complied with the recommendations of Landis & Gyr in their testing and calibration procedures.<sup>14</sup> There is no evidence in this record that any of the meters at issue were improperly tested or calibrated prior to being placed in service in the early to mid-1990s let alone any evidence

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<sup>14</sup>Indeed, the evidence showed that some of FPL's meter testers exceeded the requirement of FPL's testing procedures. (Ex. 17, BS-6 and BS-H) by making full-scale calibration adjustments even if the meter was over-registering less than 4 percent. (Ex. 10, at 43, 53-54, 71; Ex. 20, at 90).

quantifying the impact on the meters resulting from the allegedly deficient practices. In fact, six of the meters were never calibrated and, therefore, could not possibly have been miscalibrated.

Having failed to demonstrate any improprieties in FPL's meter testing and calibration procedures, and having failed to establish any connection between these alleged improprieties with the meters at issue, Mr. Brown and Mr. Gilmore turned to a different rationale to try to justify their desired result. Their theory is that the meters at issue allegedly were over registering (presumably due to miscalibration) at the time they were placed into service based on a comparison of kW demand billings before and after the failed thermal demand meters at issue were replaced. Once again, there is absolutely no evidence in the record that supports this supposition which must be demonstrated to award the refunds sought by Customers. The data provided by Mr. Brown and the exhibits to his direct testimony directly undermine his hypothesis and Mr. Gilmore's deficient, selective "analysis" cannot salvage the claims for multi-year refunds.

The data presented in Ex. 6 (GB-6) for the thermal demand meters at issue in this docket reveal varying levels of kW demand consumption prior to the replacement of the meters<sup>15</sup> and in many cases confirm a downward trend in kW demand was underway before the meter was replaced. For example, the spread sheets for the Target 1901 Congress, Boynton Beach account indicate the thermal demand meter was installed in January of 1991 and removed in November 2002. The data on this chart confirms that for many months, when compared to the same month for the prior year,

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<sup>15</sup>This data is consistent with FPL's investigation into the meters in this docket which revealed varying upward and downward trends in kW demand prior to the replacement of the thermal demand meter at issue, whether due to changes in consumption patterns, weather effects, seasonal trends, or equipment changes, and which precluded the identification of a specific date beyond one year of a meter problem or malfunction that triggered over-registration for the months and years that followed. (Ex. 18, at pages 30, 117-119).

there was a decrease in kW demand before the meter was replaced.<sup>16</sup> In fact, the data in Exhibit GB-6 (Hearing Exhibit 6) indicates that six of the accounts at issue were already experiencing a downward trend in kW demand (or kWh sales in the case of the Dillard's Port Charlotte) in the year immediately preceding the meter replacement. Thus, the data presented by Mr. Brown undermines his speculation that the meters at issue were consistently reflecting artificially high kW demand figures before the meters were replaced.

Having failed to make a persuasive case in their direct testimony for refunds beyond one year, the Customers attempted to salvage their claims by offering a "statistical analysis" submitted by Mr. Gilmore on rebuttal.<sup>17</sup> Mr. Gilmore's "analysis" is fraught with errors and cannot rescue SUSI from its failure to carry its burden of proof in its case in chief. First of all, Mr. Gilmore is not a statistician. (Tr. 390). Rather, he is a principle and vice president of SUSI who stands to benefit

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<sup>16</sup>The data shows the reductions in kW demand for the following months and years: December 1998 (504 kW) to December 1999 (492 kW); January 1999 (516 kW) to January 2000 (456 kW); February 1999 (480 kW) to February 2000 (480 kW) (demand stayed constant); and March 1999 (480 kW) to March 2000 (456 kW). A second example is found in the kW demands for the J. C. Penney's in Naples. Those demands declined by 11% in the year immediately preceding the meter replacement and then experienced a subsequent 1.7% decline in the twelve months following the meter replacement. (See also, Tr. 118 regarding J.C. Penney's account in Bradenton.)

<sup>17</sup>Following the filing of Mr. Gilmore's prefiled rebuttal testimony, FPL moved to strike his testimony and exhibits on the grounds that his analysis was not rebuttal but instead should have been part of SUSI's case in chief. As expressed in that motion, FPL was particularly concerned that, because Mr. Gilmore's "analysis" was submitted as rebuttal testimony, FPL was denied an opportunity to sponsor testimony and exhibits directly responding to the "analysis." FPL's motion to strike was denied. At the hearing, FPL offered a series of exhibits responding to Mr. Gilmore's analysis which included monthly calculations of the demand/consumption ratio utilized by Mr. Gilmore along with graphs that reflected the plotting of that monthly data. (Tr. 419-420). Those exhibits were not accepted into evidence, but were proffered for the record. (Tr. 420-421).

financially if the refunds in this docket are extended beyond one year. (Tr. 390-392). His pecuniary interest and flawed “analysis” renders his testimony vacuous.<sup>18</sup>

Mr. Gilmore presented a simplistic “analysis” that was purportedly based on changes in the ratio of demand to consumption utilizing maximum demand to total kilowatt consumption on an annual basis. (Tr. 394-395). There are multiple significant errors and flaws with Mr. Gilmore’s “analysis” that confirm its unreliability.<sup>19</sup> Mr. Gilmore excluded data on an inconsistent and unsupportable basis and then unjustifiably attempted to draw conclusions from a limited number of annual data points without looking at the underlying monthly data which was available. (Tr. 405, 412-415; 416-417). Mr. Gilmore never did an analysis of what happened in the months immediately following removal of any meter. (Tr. 408). A very simple mathematical calculation demonstrates that the annualized approach utilized by Mr. Gilmore has no merit.<sup>20</sup> An analysis of the monthly data reveals no significant change in the months immediately following a meter change out even for those meters which Mr. Gilmore claims reflect a change on an annualized basis.<sup>21</sup> (Tr. 407).

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<sup>18</sup>Mr. Gilmore did not become affiliated with SUSI until 2003 after all of the thermal demand meters had been switched out. (Tr. 391). At the time that he submitted his rebuttal testimony in this docket, 99% of the work that Mr. Gilmore did for SUSI was related to FPL thermal demand meters. (Tr. 391). His obvious goal was to present an “analysis” that justified a desired conclusion.

<sup>19</sup>One of the meters that Mr. Gilmore utilized in his “analysis” was the Target Boca store which is not even part of this docket. (Tr. 393-394). See footnote 2 above. This particular store was the first illustration cited in Mr. Gilmore’s exhibits and was used by Mr. Gilmore as the example to support his desired conclusions. (Tr. 385-386). However, it has never been part of this case and its inclusion in Mr. Gilmore’s exhibits only serves to skew the analysis in his desired direction.

<sup>20</sup>By using annualized data, Mr. Gilmore only has one data point after the meter change out included in his analysis. From a statistical standpoint, the more data points that are utilized in a control chart analysis, the better for purposes of drawing any conclusions. (Tr. 405).

<sup>21</sup>For example, with respect to the Target Hollywood facility which is located at 3251 Tamiami Trail South, the removal date of the meter was in November 2002. The data for

Mr. Gilmore's disregard of monthly data and his use of a single annualized data point renders any purported conclusions meaningless. Even Mr. Gilmore admits that control chart analysis does not provide a basis to identify any specific cause for a variation that is outside of expected results. (Tr. 402). The identification of any potential causes is especially impossible using Mr. Gilmore's "analysis" because there are so many serious flaws with his approach. For at least four of the meters in Mr. Gilmore's "analysis", the ratio upon which his "analysis" is based did not reflect a strong correlation. (Tr. 395-396). No coherent explanation was provided for this lack of correlation. In fact, in at least one instance, the explanation advanced by Mr. Gilmore in his exhibits was clearly

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consumption and demand reflected in Mr. Gilmore's Exhibit BG-2 (Hearing Exhibit 16) is reflected below for December 2002 as well as the four preceding months and the four subsequent months. The ratio on the following chart is a straight-forward calculation based upon the mathematical formula described by Mr. Gilmore.

<u>Month</u>	<u>Demand Reading</u>	<u>KWh Reading</u>	<u>Calculated Ratio</u>
Jul-02	600	251040	2.39
Aug-02	552	241920	2.28
Sep-02	540	253440	2.13
Oct-02	480	228960	2.10
Nov-02	600	247680	2.42
Dec-02	564	209280	2.69
Jan-03	557	211440	2.63
Feb-03	408	165840	2.46
Mar-03	528	227520	2.32
Apr-03	562	214080	2.63
May-03	542	209760	2.58

This information reveals that the ratio in the months immediately preceding the November 5 removal of the IV meter were significantly lower than the ratio in the months immediately following the change out. Moreover, further analysis of the data reveals that, it was sometime after May 2003 during the last five months of 2003, that the ratio dropped significantly which explains why the annualized data showed a drop. In other words, the drop in the consumption ratio occurred beginning some time around June or July of 2003 more than seven months after the meter change out and there was no noticeable effect from the meter change out. Mr. Gilmore's analysis obscures these extremely relevant facts.

erroneous. (Tr. 397-398). For example, Mr. Gilmore attempted to provide an explanation for the low correlation rate for one of the stores, J.C. Penney's Naples, based upon alleged anomalies in the data for that store in 1994. However, there is no data for that store in 1994 and it appears that the meter was not even installed until 1996. (Tr. 397-398). Mr. Gilmore also failed to include a correlation ratio for one of the other meters that is in the docket, Dillard's Port Charlotte. (Tr. 399). Even when the correct data was used, the testimony revealed Mr. Gilmore improperly calculated the mean and the control limits for at least one of the stores, Target Port Charlotte. (Tr. 399-401). The bottom line is that Mr. Gilmore's "analysis" did not come close to meeting the Customers' burden to establish a cause and/or date for the meter over-registration.

Having failed to present competent substantial evidence in support of their miscalibration theory, and with the unrefuted testimony in the record that six of the meters at issue were never calibrated before being placed into service and therefore could not have been miscalibrated, the only lawful conclusion that the Commission can reach is that the Customers have failed to meet their burden of demonstrating that the over-registration reflected in the recent meter tests "was due to some cause, the date of which can be fixed" per Rule 25-6.103(1). Therefore, refunds for each meter in this proceeding must be limited to twelve months as posited by FPL.

There, of course, remains the question as to what may have caused the meters at issue to over register. The only plausible explanation was provided by FPL's expert, Mr. Malemezian, who testified that the multiple components and materials that comprise a thermal demand meter can change characteristics over time and cause the meter to gradually over-register or under-register. Based on his experience, qualifications and expertise, Mr. Malemezian explained that the balance and match in characteristics of the many components that are critical to the continued stability of the



calibration of the meter can change over time thereby resulting in over-registration or under-registration conditions. (Tr. 309-312).<sup>22</sup>

As Mr. Malemezian further observed, and as intuitive as it may seem, the very fact that the characteristics of these components can change and that the parts can malfunction is precisely why the manufacturer includes detailed instructions on how to repair various parts of a thermal demand meter. (Tr. 307-308; Ex. 13, BS-E).<sup>23</sup> Indeed, as Mr. Smith acknowledged on cross-examination, when he worked at Duncan, it was not unusual to run into problems or issues with the quality or capability of the materials that were used in building the meter. (Tr. 255). Mr. Malemezian testified that in his 26 years of experience, he had been involved in hundreds and hundreds, if not thousands, of investigations that focused on the accuracy of these meters, including 1V meters, and confirmed that these changes in components occur regularly and explained why changes in calibration can occur over time for a meter that has been in service for awhile. (Tr. 351, 367, 371-372).

The Customers' attempt to discredit Mr. Malemezian's testimony was both curious and unsuccessful. It was curious because the Customers themselves admitted that the physical characteristics of all of the components described by Mr. Malemezian in his testimony that comprise a Type 1V thermal demand meter can change and affect the accuracy of the meter. (Ex. 8). That admission was confirmed first by Mr. Brown and then again by Mr. Smith on cross-examination.

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<sup>22</sup>See also, Ex. 17, at 183-4.

<sup>23</sup>Landis & Gyr Bulletin 841 includes thirteen pages of pictures, theory of operation, calibration instructions, repair and maintenance instructions, followed by six pages of specifications and application guidelines, followed by two pages of troubleshooting instructions, ending with twelve pages of application diagrams. As Mr. Malemezian put it, "[t]hese are not the instructions for a simple device." (Tr. 307-308).

(Tr. 212-14, 253-4).<sup>24</sup> Mr. Smith conceded that over-registration in a thermal demand meter can occur as a result of any number of components in a TMT meter, which is the type of meter at issue in this proceeding. (Tr. 253-54). He acknowledged that the components of thermal demand meters are subject to corrosion or breakdown once placed into service and that the Landis & Gyr and Sangamo Manuals that he attached to his testimony provide explicit instructions on how to repair and replace various parts or components of these meters. (Tr. 255; Ex. 13, Ex. BS-G and BS-L). From there, he went on to give a number of examples of the different types of components that can break down and cause a meter to over register. (Tr. 256-258).

Having agreed that the characteristics of the components of the 1-V meters at issue can change and cause over-registration, the Customers still attacked the credibility of Mr. Malemezian on the basis that he was not an expert with respect to the composition of the actual materials that make up the components of thermal demand meters.<sup>25</sup> This was not a matter revealed in cross-examination. Mr. Malemezian explicitly addressed this point in his prefiled rebuttal testimony. As Mr. Malemezian reminded the Commission, his lack of expertise in material science does not detract from his 26 years of experience in working with thermal demand meters, including testing, calibration and investigations into accuracy issues, which have provided him with a platform of knowledge that the characteristics of these components do change and the reasons why they change. (Tr. 350-351, 362-367). Based on his experience, he emphasized “that regular and continued

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<sup>24</sup>Messrs. Brown and Smith also alleged that certain meter testers deposed by the Customers did not know of any mechanism that can cause meters to gradually over-register. (Tr. 159, 233). However, the record is clear that FPL meter testers do not disassemble and repair thermal demand meters. (Tr. 314-15; Ex. 10, at 9, 14-15, 17; Ex. 11, at 42, 63, 79; Ex. 12, at 25-26, 33, 40, 96; Ex. 17, at 185-86; and Ex. 20, at 129-30).

<sup>25</sup>See, e.g., Tr. 362-363.

temperature cycling, such as that which occurs under the cover of meters, accentuate changes in the characteristics of materials." (Tr. 309). Mr. Malemezian has been involved with the dissection and investigation of hundreds, if not thousands, of meters that have changed characteristics. In his experience, a change in the characteristics of materials is very high up on the list of causes that the manufacturers have identified to FPL. (Tr. 360). In fact, he has personally observed Landis & Gyr 1V thermal demand meters that have experienced changes in the physical characteristics of the meter components. (Tr. 363). Further, although it is true that the design process typically includes a factor of safety for the materials incorporated in a thermal demand meter, Mr. Malemezian noted that, practically speaking, a margin of safety in the design process cannot prevent a change in the characteristics of the components that develop into problems after the design and manufacturing process has been completed. (Tr. 356, 364, 375).

Mr. Malemezian's testimony is corroborated by Mr. Smith's admission that the components of the thermal demand meters are subject to corrosion or break-down once placed into service and that thermal demand meters can over-register demand due to imperfections in all of the components. (Tr. 253-255). And again, to restate the obvious, if the factors of safety utilized in the design of these meters prevented corrosion or breakdown of the various parts, there would be no need for the detailed instructions in the Landis & Gyr Manual on the repair of the various parts of the TMT thermal demand meter.

The Customers tried to emphasize during the cross-examination of Mr. Malemezian that there was no evidence of any deterioration or breakdown of any of the components of the meters at

issue in this proceeding.<sup>26</sup> However, as Mr. Malemezian noted, it was not necessary or prudent to examine the meters to know that potential deterioration of components was in play. Moreover, preserving the seal of the meter was necessary to protect the integrity of the meter in the event future testing was ordered by the Commission. (Tr. 370-371). Mr. Malemezian explained why, based on his experience, an examination of the meters of the type requested by the Customers would not be productive because it would not reveal subtle changes in components and a more sophisticated disassembly and testing of the components would be destructive to the meter, thereby precluding the integrity of future testing. Furthermore, sophisticated disassembly and testing is likely not even possible since Landis & Gyr no longer manufactures and tests thermal demand meters. (Tr. 374).

Based on the evidence in this record, the Customers have failed to support their miscalibration theory. The Customers have failed to present competent substantial evidence identifying a fixed cause and date of over registration for the meters at issue in this proceeding. Accordingly, the Commission should determine that a one-year refund period for each of the meters at issue in this proceeding is appropriate and required under Rule 25-6.103(1).

**ISSUE 6:      What interest rate should be used to calculate customer refunds?**

**FPL:**            \*The interest on refunds should be calculated pursuant to Rule 25-6.109(4), F.A.C.\*

In the PAA Order, the Commission determined that Rule 25-6.109 governs the payment of interest on any refunds ordered by the Commission in this proceeding. Subsection (1) of Rule 25-6.109 states:

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<sup>26</sup>FPL notes that Customers' Motion for Leave to Inspect the meters at issue in this proceeding was denied by the prehearing officer pursuant to Order No. PSC-04-0932-PCO-EI issued September 22, 2004. Customers sought reconsideration of that Order which was denied by Order No. PSC-04-1160-PCO-EI issued November 22, 2004.

(1) **Applicability.** With the exception of deposit refunds and refunds associated with adjustment factors, all refunds ordered by the Commission shall be made in accordance with the provisions of this Rule, unless otherwise ordered by the Commission.

Subsection (4) of Rule 25-6.109 sets forth the manner in which interest on refunds is calculated. In their Petition for Hearing, Customers contend that interest on any refunds that are ordered should be calculated pursuant to Section 687.01<sup>27</sup> and 55.03, Florida Statutes.

The question of which interest rate should apply to calculate customers' refunds is purely a legal issue. Rule 25-6.109(1) clearly provides that the interest rate provisions in Subsection (4) of the Rule apply to all refunds ordered by the Commission with the exception of deposit refunds, refunds associated with adjustment factors, or unless otherwise ordered by the Commission. This case does not concern deposit refunds or adjustment factors. Accordingly, the only question is whether there is any basis for the Commission to "otherwise order" refunds.

The Customers' reliance on Kissimmee Utility Authority v. Better Plastics, Inc., 526 So.2d 46 (Fla. 1988) is misplaced. In Kissimmee Utility, a customer sued a municipal electric utility in circuit court for refunds. The circuit court granted summary judgment for the municipal utility concluding that interest was not due because the rule under which the refund was sought, Rule 25-6.106(2), Florida Administrative Code (overcharges), did not include provisions for the payment of interest. On appeal, the Fifth District Court of Appeal reversed based on the decision in Argonaut Insurance Company v. May Plumbing Co., 474 So.2d 212 (Fla. 1985). In Argonaut, the court held that a plaintiff in a civil action who was awarded a verdict liquidating the plaintiff's financial losses to a specified sum is entitled to prejudgment interest dating back to the date of the loss. The Fifth

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<sup>27</sup>Section 687.01, Florida Statutes, states that "[i]n all cases where interest shall accrue without a special contract for the rate thereof, the rate is the rate provided for in s. 55.03."

District certified to the Supreme Court of Florida a question of great public interest, to-wit: “[i]s a regulated public utility in Florida liable to customers for prejudgment interest on overcharge refunds?” Better Plastics, Inc. v. Kissimmee Utility Authority, 511 So.2d 402, 403 (Fla. 5<sup>th</sup> DCA 1987).

On appeal, the Supreme Court of Florida upheld the right of a customer properly suing a municipal electric utility in circuit court to prejudgment interest under the precedent established in the Argonaut decision. Kissimmee Utility Authority v. Better Plastics, Inc., 526 So.2d 46 (Fla. 1988). The Kissimmee Utility decision did not address whether Rule 25-6.109, a rule not at issue in that case, applied to a refund ordered by the Florida Public Service Commission for payment by an electric utility that is subject to rate regulation by the Commission.

In an order issued approximately seven months after the Florida Supreme Court’s opinion in the Kissimmee Utility case, the Commission directly addressed the applicability of its refund rules in Commission proceedings. In In re: Complaint by Kelly Tractor Company, Inc. against Meadow Brook Utility Systems, Inc. regarding refund for overpayments in Palm Beach County, Order No. 20474 issued December 20, 1988,<sup>28</sup> a customer brought an action before the Commission for refunds against an investor-owned, rate-regulated water and wastewater utility. The customer claimed that the appropriate rate of interest for any refund ordered by the Commission was controlled by Section 687.01, Florida Statutes. The Commission carefully analyzed and rejected the potential application of the Kissimmee Utility decision and held that the interest to be applied to any refund should be calculated pursuant to Rule 25-30.360(4), Florida Administrative Code. The Commission expressly

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<sup>28</sup>88 F.P.S.C. 12:275.

recognized in the Kelly Tractor order that Rule 25-30.360(4) parallels Rule 25-6.109(4) for electric utilities for the purpose of addressing the calculation of interest for Commission-ordered refunds.<sup>29</sup>

In the Kelly Tractor order, the Commission noted that the generally applicable refund and interest rate rule for public utilities that are subject to Commission rate regulation - - Rule 25-6.109 - - was not at issue in the Kissimmee Utility case. The Commission further noted that Rules 25-30.360 (water and wastewater) and 25-6.109 (electric) apply by their terms only to Commission-ordered refunds. The Commission recognized that the Kissimmee Utility decision is “[f]lawed by false premises... and cannot be accepted as dispositive because of the superficial strength of the Florida Supreme Court’s affirmative answer to the question that was certified to it.”<sup>30</sup> As the Commission put it: “We believe that our rules should apply to the utilities we regulate.”<sup>31</sup> In determining that Kissimmee Utility was not controlling, the Commission emphasized that the defendant municipal electric utility was a governmentally owned utility and the extent of the Commission’s jurisdiction over that utility was limited to rate structure. By contrast, the utility in the Kelly Tractor proceeding was an investor-owned water and sewer utility and subject to rate base regulation by the Commission - - as is the case with FPL.

Accordingly, the Commission has previously resolved the interest rate issue raised by the Customers. Pursuant to the plain language of Rule 25-6.109 and the Kelly Tractor order, the Commission should determine that Rule 25-6.109(4) applies to the calculation of interest to be paid by FPL, an investor-owned utility that is subject to Commission rate regulation, on any refunds

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<sup>29</sup>88 F.P.S.C. 12:275 at 277.

<sup>30</sup>88 F.P.S.C. 12:275 at 277 (emphasis supplied).

<sup>31</sup>88 F.P.S.C. 12:275 at 277 (emphasis supplied).

ordered by the Commission in this proceeding. The interest calculations per Rule 25-6.109(4) for each meter eligible for a refund are provided by Ms. Morley in Exhibit 5.

**ISSUE 7:**     **Did the sun or radiant heat affect the accuracy of any of the meters subject to this docket? If so, how do such effects impact the determination of which meters are eligible for a reward or the amount of any refund due?**

**FPL:**            \*No.\*

No. There is no evidence that the sun or radiant heat affected the accuracy of any of the meters subject to this docket. Both Mr. Brown and Mr. Smith admitted that they had no evidence that any of the meters in this docket over-registered demand due to the effect of the sun or radiant heat. (Tr. 162, 269).<sup>32</sup> Therefore, there is no effect on the determination of which meters are eligible for a refund or the amount of any refund due.

**ISSUE 8:**     **What is the appropriate customer refund for each thermal demand meter subject to this docket that tests outside the prescribed tolerance limits?**

**FPL:**            \*The Commission should order one-year refunds plus interest calculated pursuant to Rule 25-6.109(4), F.A.C. The breakdown of the refunds plus interest for each meter is set forth in Exhibit 5.\*


The Commission should order one-year refunds plus interest calculated pursuant to Rule 25-6.109(4), Florida Administrative Code. The total amount of refunds plus interest is \$31,377.53 for the twelve meters eligible for refunds. The breakdown of the refund plus interest for each meter is set forth in Exhibit 5.

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<sup>32</sup>Mr. Brown advised the Commission that the TMT meters at issue in this docket do not have sun shields. (Tr. 162). That is not true. The meters at issue in this docket have a factory installed sunshield. (Tr. 256, 330). Mr. Brown also represented that Mr. DeMars recognized that "thermal demand meters have demonstrated the ability to register a little demand due to thermal heating from direct sunlight. Mr. Brown failed to disclose in his testimony the full passage of Mr. DeMars' statement. Mr. DeMars stated that thermal meters have demonstrated the ability to register a little demand due to thermal heating from direct sunlight where potential only is applied to the meter and there is no current flow. **See Ex. 6, GB-4.**



Respectfully submitted,



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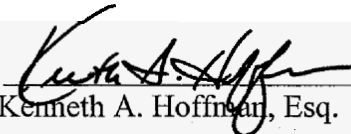
**CERTIFICATE OF SERVICE**

**I HEREBY CERTIFY** that a true and correct copy of Florida Power & Light Company's Posthearing Brief has been furnished by United States Mail this 16th day of December, 2004, to the following:

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