

**BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 080317-EI**

**IN RE: TAMPA ELECTRIC COMPANY'S
PETITION FOR AN INCREASE IN BASE RATES
AND MISCELLANEOUS SERVICE CHARGES**



**DIRECT TESTIMONY AND EXHIBIT
OF
WILLIAM R. ASHBURN**

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OF
WILLIAM R. ASHBURN

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1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2 **PREPARED DIRECT TESTIMONY**

3 **OF**

4 **WILLIAM R. ASHBURN**

5
6 **Q.** Please state your name, business address, occupation and
7 employer.

8
9 **A.** My name is William R. Ashburn. My business address is
10 702 North Franklin Street, Tampa, Florida 33602. I am
11 the Director, Pricing and Financial Analysis for Tampa
12 Electric Company ("Tampa Electric" or "company").

13
14 **Q.** Please provide a brief outline of your educational
15 background and business experience.

16
17 **A.** I graduated from Creighton University with a Bachelor of
18 Science degree in Business Administration. Upon
19 graduation, I joined Ebasco Business Consulting Company
20 where my consulting assignments included the areas of
21 cost allocation, computer software development, electric
22 system inventory and mapping, cost of service filings and
23 property record development. I joined Tampa Electric in
24 1983 as a Senior Cost Consultant in the Rates and
25 Customer Accounting Department. At Tampa Electric I have

1 held a series of positions with responsibility for
2 embedded and marginal cost of service studies, rate
3 filings, rate design, implementation of new conservation
4 and marketing programs, customer surveys and various
5 state and federal regulatory filings. In March 2001, I
6 was promoted to my current position of Director, Pricing
7 and Financial Analysis in Tampa Electric's Regulatory
8 Affairs Department. I am a member of the Rate and
9 Regulatory Affairs Committee of the Edison Electric
10 Institute ("EEI") and the Rate Committee of the
11 Southeastern Electric Exchange ("SEE").

12
13 **Q.** Have you previously testified before the Florida Public
14 Service Commission ("FPSC" or "Commission")?

15
16 **A.** Yes. I have testified or filed testimony before this
17 Commission in several dockets. I testified for Tampa
18 Electric in Docket No. 000061-EI regarding the company's
19 Commercial/Industrial Service Rider tariff and in Docket
20 No. 020898-EI regarding a self-service wheeling
21 experiment. In Docket Nos. 000824-EI, 001148-EI, 010577-
22 EI and 020898-EI, I testified at different times for
23 Tampa Electric and as a joint witness representing Tampa
24 Electric, Florida Power & Light Company ("FP&L") and
25 Progress Energy Florida Inc. ("PEF") regarding rate and

1 cost support matters related to the GridFlorida
2 proposals. In addition, I have testified for Tampa
3 Electric numerous times at workshops and in other
4 proceedings regarding rate, cost of service and related
5 matters. I have also provided testimony and represented
6 Tampa Electric before the Federal Energy Regulatory
7 Commission ("FERC") in rate and cost of service matters.
8

9 **Q.** Please state the purpose of your direct testimony.

10
11 **A.** The purpose of my direct testimony is to present the
12 proposed rates and service charges that will produce the
13 company's proposed jurisdictional revenue requirement
14 increase of \$228,167,000. Specifically, I:

15 1) Present the development and application of billing
16 determinants and the forecast of base revenues from
17 the sale of electricity and revenues from service
18 charges for the 2008 and 2009 projected periods
19 using present rates, and for 2009 under proposed
20 rates to achieve proposed class revenues;

21 2) Present the Jurisdictional Separation Study and
22 resultant jurisdictional separation factors utilized
23 for the 2007 historical period and the 2008 and 2009
24 projected periods that determine the portion of
25 Tampa Electric's system rate base and operating

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expenses subject to the jurisdiction of the FPSC and form the basis for the company's proposed revenue requirement;

- 3) Present the 2009 projected period Retail Class Allocated Cost of Service and Rate of Return Studies that utilize a 12 Coincident Peak ("CP") and 25 Percent Average Demand ("AD") production capacity cost allocation methodology, which I will refer to as 12 CP and 25 Percent AD;
- 4) Describe the methods employed, facts considered, and principles upon which the Jurisdictional Separation Study and Cost of Service Study were prepared;
- 5) Provide conclusions regarding the adequacy of the aforementioned studies and the reasonableness of the resulting costs being used to support the proposed rate design; and
- 6) Explain the development of the company's proposed rate structure modifications, rate designs and new permanent rates, service charges and schedules to be implemented.

Q. Have you prepared an exhibit to support your direct testimony?

A. Yes, I am sponsoring Exhibit No. ____ (WRA-1) consisting

1 of five documents, prepared under my direction and
2 supervision. These consist of:

3 Document No. 1 List Of Minimum Filing Requirement
4 Schedules Sponsored Or Co-Sponsored By
5 William R. Ashburn

6 Document No. 2 Proposed Rate Schedule Changes

7 Document No. 3 Comparison Of Class Allocated Cost Of
8 Service Study Results Test Period: 2009

9 Document No. 4 Development Of Target Proposed Revenue
10 Increase By Class Test Period: 2009

11 Document No. 5 Summary Of Resultant Proposed Class
12 Parity Ratios And Rates Of Return Test
13 Period: 2009

14

15 **Q.** Are you sponsoring any sections of Tampa Electric's
16 Minimum Filing Requirements ("MFRs")?

17

18 **A.** Yes. I am sponsoring or co-sponsoring the MFRs shown in
19 Document No. 1 of my exhibit.

20

21 **Q.** Are Tampa Electric's billing determinants, forecast of
22 base revenues from the sale of electricity and service
23 charges, Jurisdictional Separation Study, Cost of Service
24 Study, proposed rate design and new permanent rate
25 schedules provided as part of Tampa Electric's MFRs?

1 **A.** Yes, they are provided within the portion of the MFRs
2 designated Section E, "Rate Schedules". I have provided
3 the Jurisdictional Separation Study and two sets of Cost
4 of Service Studies as well as work papers in separate
5 bound volumes due to their voluminous size. Volume I
6 contains the Jurisdictional Separation Study and
7 workpapers. Volume II contains the Cost of Service
8 Studies utilizing the MFR required 12 CP and 1/13 AD
9 methodology with present and proposed rates. Volume III
10 contains the Cost of Service Studies utilizing the
11 company's proposed 12 CP and 25 percent AD methodology
12 with present and proposed rates. Volume IV contains the
13 company's Lighting Incremental Cost Study prepared in
14 support of the lighting rate design, which is a
15 supplement to MFR Schedule E-13d.

16
17 **Q.** What are the company's primary goals for the proposed
18 rate design changes in this case?

19
20 **A.** While many specific changes are proposed, there are three
21 primary goals. The first goal is to provide
22 interruptible service to all general service customers
23 desiring to take such service on a cost-effective rate
24 schedule. This will be accomplished by permanently
25 eliminating the company's present interruptible service

1 rate schedules, which are closed to new business, and
2 transferring all customers to firm base rate service with
3 the opportunity to take service under the company's
4 interruptible conservation programs, GSLM-2 and GSLM-3.
5 All present demand rate schedules, which consist of
6 General Service - Demand ("GSD"), General Service - Large
7 Demand ("GSLD"), and Interruptible Service("IS") will be
8 combined into one new proposed GSD rate schedule. The
9 effect of this proposal has consequences to both cost of
10 service and rate design, including the cost recovery
11 clauses, which normally would not be affected within a
12 base rate filing. This alternative costing treatment for
13 IS customers originated from the company's last rate case
14 (Docket No. 920324-EI) when Tampa Electric was ordered
15 (Order No. PSC-93-0165-ROR-EI) to file in this proceeding
16 "...a cost study which allocates costs to this class(es)
17 [IS] based on their load characteristics and a study
18 which develops a Coincident CP kW credit based on avoided
19 cost...".

20
21 The second goal is to implement a conservation-oriented
22 price incentive through an inverted rate structure for
23 the standard residential service ("RS") rate schedule.
24 This two-block, inverted rate design provides an
25 appropriate price signal to customers regarding their

1 energy usage and serves as motivation for increased
2 energy conservation.

3
4 The third goal is to create a single lighting service
5 ("LS-1") rate schedule under which all customers
6 currently served would take service. This consolidates
7 the High Pressure Sodium ("HPS") General Outdoor Lighting
8 Service ("OL-1"), Premium Outdoor Lighting Service ("OL-
9 3") and HPS Street Lighting Service ("SL-2") rate
10 schedules. This consolidation into one rate schedule
11 provides a more uniform rate application for similar or
12 like facilities offered presently under three rate
13 schedules.

14
15 Document No. 2 of my exhibit provides a diagrammatic
16 overview of the changes described above as well as other
17 changes I describe later and their impacts on present
18 rate schedules.

19
20 **BILLING DETERMINANTS**

21 **Q.** Please explain the term billing determinants.

22
23 **A.** Billing determinants are the parameters for billing to
24 which prices are applied to derive billed revenues. They
25 include: 1) the number of customers (i.e. bills) to which

1 the customer charges are applied, 2) the amount of energy
2 or kilowatt-hours ("kWh") sold to which the energy
3 charges are applied, and 3) the amount of demand or
4 kilowatts ("kW") to which the demand charges are applied.
5 They also include the number of units to which any
6 additional charges, discounts and/or penalties are
7 applied. Some rate schedules are only billed using
8 customer and kWh billing determinants, while others may
9 include a kW billing determinant as well. Lighting
10 schedules are billed based on lighting facility billing
11 determinants (e.g. pole and fixture) along with kWh.

12
13 **Q.** Where are the billing determinants found in the company's
14 filing?

15
16 **A.** Billing determinants for present and proposed rates are
17 contained in MFR Schedules E-13c and E-13d.

18
19 **Q.** How were the billing determinants derived?

20
21 **A.** The basis for the billing determinants by rate schedule
22 is historical billing data maintained by Tampa Electric's
23 Customer Information System. Details of the derivation
24 of these numbers are explained in MFR Schedule E-15. The
25 foundation for the billing determinants was the company's

1 customer, peak demand and energy sales forecasts for test
2 year 2009, which are supported in Tampa Electric witness
3 Lorraine L. Cifuentes' direct testimony. The forecasts
4 produce the number of customers, energy consumption and
5 demand by revenue classifications of residential,
6 commercial, industrial, public street and highway
7 lighting, and sales to public authorities. Witness
8 Cifuentes also forecasts the expected requirements for
9 phosphate industry load which is volatile year over year
10 and is a significant portion of energy sales by the
11 company.

12
13 The next step was to distribute the forecasts of
14 customers and kWh sales to rate schedule classifications.
15 This distribution was made in proportion to customer and
16 sales relationships of revenue classifications to rate
17 schedule classifications that were experienced in recent
18 years by analyzing data for the years 2003 through 2007.

19
20 Historical customer and kWh sales relationships were also
21 established for other billing units in each rate
22 schedule. These relationships were applied to the
23 apportioned number of customers and sales of each
24 respective rate schedule to derive the various other
25 billing units, including billing demands, time-of-day

1 rate billing quantities, and metering and service voltage
2 level distinctions, as well as various other billing
3 quantities subject to additional charges or credits.

4

5 **Q.** Were the projected billing determinants impacted by the
6 recently approved net metering Florida Administrative
7 Code rule, Rule No. 25-6.065?

8

9 **A.** No. The development of the billing determinants was not
10 impacted by the new net metering rule. Tampa Electric
11 currently only has 13 customers for which the rule
12 applies. The impact of net metering is not expected to
13 materially affect the projected 2009 billing
14 determinants. However, should net metering become more
15 prevalent in future periods, the impact on the billing
16 determinants will be captured.

17

18 **Q.** How were these billing determinants used?

19

20 **A.** The forecasted billing determinants were applied to
21 current rates to calculate the base revenues from the
22 sale of electricity for the 2009 test year based on
23 present rates.

24

25 **Q.** Were these same billing determinants used to derive the

1 base revenues from the sale of electricity for the 2009
2 test year based on proposed rates?

3
4 **A.** In part, yes. They provided the initial basis for the
5 derivation of billing determinants; however, they were
6 adjusted to reflect the proposed rate design, which
7 combines certain current rate schedules, eliminates
8 others, and creates some new differentiation in charges.
9 In addition, because of the proposed changes in rate
10 design, certain customers were transferred from their
11 current rate schedule to a new rate schedule, either
12 because of schedule parameters or because of other rate
13 options.

14
15 **Q.** Will customers who are transferred or who may benefit
16 from transfer under the proposed rate changes be informed
17 of the proposed changes in order to assist them with
18 making the appropriate rate choice?

19
20 **A.** Yes. Multiple means will be employed to inform customers
21 of these changes and their options, depending on the size
22 of the customer group being affected and the type of
23 choices available. Some customers will be contacted
24 directly by company representatives through phone calls
25 or visits as well as by bill inserts. Others will be

1 informed through direct mail letters and bill inserts.

2

3 **FORECAST OF BASE REVENUES AND SERVICE CHARGES**

4 **Q.** Did the company prepare a forecast of base revenues from
5 the sale of electricity for 2009? If so, how was the
6 forecast of base revenues derived?

7

8 **A.** Yes. The base 2009 revenue forecast for present and
9 proposed rates is presented in MFR Schedule E-13a. The
10 rates currently in effect were applied to the forecasted
11 billing determinants to derive total annual base revenues
12 forecasted for the 2009 test year before the proposed
13 change in rates were considered.

14

15 **Q.** What is the projected retail billed electric revenues for
16 2009?

17

18 **A.** The projected retail billed electric revenues shown in
19 MFR Schedule E-13a for 2009 is \$837,851,000 under present
20 rates and \$1,059,231,000 under proposed rates, an
21 increase of \$221,380,000.

22

23 **Q.** The revenues you just described are for billed sales.
24 Does the company make a calculation for unbilled sales?

25

1 **A.** Yes. For the 2009 test period, an amount of unbilled
2 revenues has been determined to be a negative \$1,139,000
3 under present rates, and a negative \$1,440,000 under
4 proposed rates, resulting in a negative \$301,000 for
5 unbilled sales.

6
7 **Q.** Did the company prepare a forecast of service charge
8 revenues? If so, how was the forecast of service charge
9 revenues derived?

10

11 **A.** Yes. The 2009 forecast of service charge revenues for
12 present and proposed rates is presented in MFR Schedule
13 E-13b. The current effective rates were applied to the
14 forecasted billing determinants to derive service charge
15 revenues. This represents the forecasted amount of
16 service charge revenues before any proposed change to
17 rates is considered.

18

19 **Q.** What is the projected billed service charge revenue for
20 2009?

21

22 **A.** The projected retail billed service charge revenue shown
23 in MFR Schedule E-13b for 2009 is \$12,785,000 under
24 present rates and \$19,902,000 under proposed rates, an
25 increase of \$7,117,000 million.

1 Q. What is the total amount of additional base revenues from
2 the sale of electricity and service charges the company
3 is requesting as a permanent increase?
4

5 A. The total amount is \$228,167,000 in additional revenues
6 in 2009. This is comprised of \$221,380,000 of additional
7 billed electric base sales revenues, negative \$301,000 of
8 additional unbilled electric base sales revenues, and
9 \$7,117,000 of additional service charge revenues.
10

11 **JURISDICTIONAL SEPARATION STUDY**

12 Q. What is a Jurisdictional Separation Study?
13

14 A. A Jurisdictional Separation Study allocates costs between
15 the company's wholesale and retail customers or
16 jurisdictions. While all costs are allocated, the
17 allocation of joint costs is the focal point of the
18 study. Joint or common costs are costs that serve many
19 customers at the same time. One example is a generating
20 plant that provides power not only to one customer or one
21 group of customers, but to the aggregate load
22 requirements of all power customers on the company's
23 system. The joint costs of the generating plant are
24 recorded on the company's books and records in total and
25 the Jurisdictional Separation Study allocates the joint

1 costs between retail and wholesale customers. Only the
2 costs associated with retail customers are applicable in
3 this proceeding.
4

5 The Jurisdictional Separation Study allocates revenue,
6 rate base and operating expense items, whether jointly or
7 specifically assigned to a single jurisdiction, to derive
8 the company's retail jurisdiction cost of service for the
9 test period. Costs are first functionalized, then
10 classified, and finally allocated between the wholesale
11 and retail jurisdictions. These allocations utilize load
12 and other factors that best represent each jurisdiction's
13 cost responsibility to achieve this purpose. A
14 description of how costs are functionalized, classified
15 and allocated is provided below. The overall methodology
16 is the same in both the Jurisdictional Separation Study
17 and the Retail Cost of Service Studies, which I discuss
18 later.
19

20 **Q.** Why is it necessary to prepare a Jurisdictional
21 Separation Study for Tampa Electric?
22

23 **A.** Since early 1991, Tampa Electric has provided wholesale
24 and transmission service to some municipalities in
25 Florida at rates that are under the jurisdiction of the

1 FERC. Although the company operates in two regulatory
2 jurisdictions, its investments, revenue, and expenses are
3 maintained on a total company basis in accordance with
4 the Uniform System of Accounts prescribed by the FERC and
5 the FPSC. The Jurisdictional Separation Study is
6 designed to directly assign or allocate total system
7 costs.

8
9 **Q.** Is the Jurisdictional Separation Study provided in this
10 proceeding consistent with Tampa Electric's previous
11 Commission filings and industry practice?

12
13 **A.** Yes. Tampa Electric provided a Jurisdictional Separation
14 Study in its last base rate proceeding that led to an
15 approved methodology by the FPSC. That methodology has
16 been utilized to produce separation factors for the
17 annual projected surveillance reports, which are the same
18 factors that have been used as separation factors for the
19 2007 and 2008 MFRs. Some specifically identified changes
20 to the previous methodology have been utilized for the
21 2009 test year.

22
23 **Q.** What are the changes?

24
25 **A.** The majority of the changes incorporated in the company's

1 2009 Jurisdictional Separation Study relate to the
2 transmission function and were made to comply with
3 current FERC and FPSC orders and practices. The first
4 change is to treat generator step-up facilities as a
5 production capacity related function rather than a
6 transmission capacity related function where they are
7 booked in the accounting records. In addition, the
8 previous functions of transmission and subtransmission
9 have been consolidated and their associated costs are
10 jurisdictionally separated based on a total rolled-in
11 allocation approach rather than attempting to establish
12 direct assignments. Finally, firm transmission service
13 provided under the Open Access Transmission Tariff
14 ("OATT") is treated as having cost responsibility and is
15 allocated costs and assigned revenues rather than being
16 treated as a revenue credit.

17
18 Both the FERC and this Commission have used the
19 coincident peak loads for the 12 monthly peaks ("12 CP")
20 methodology for allocating power supply and transmission
21 costs and the 12 CP methodology was used for the
22 jurisdictional separation in this study. MFR Schedule E-
23 1 directs that the Jurisdictional Separation Study
24 utilize the 12 CP methodology.

25

1 **Q.** What were the major steps followed in performing the
2 Jurisdictional Separation Study?

3
4 **A.** There are several steps in preparing the Jurisdictional
5 Separation Study. First, the company's accounting
6 information provided by FERC account, shown in the MFR
7 Schedules B, C and D, is adjusted for the test period.
8 The accounts are then functionalized into production,
9 transmission, distribution, and general functions. Next,
10 they are classified into demand, energy or customer
11 groups. After classification, the groupings are
12 allocated into the retail and wholesale jurisdictions
13 using allocation factors. The allocation factors are
14 predominantly based on demand data for the retail and
15 wholesale jurisdictions during the time of the company's
16 projected system monthly peaks, although other factors
17 are utilized that directly allocate certain costs to the
18 specific jurisdiction for which the costs are incurred.
19 In addition, other metrics such as energy sales and
20 number of customers are utilized.

21
22 **Q.** What wholesale customers are included in the test period?

23
24 **A.** For the 2009 test year, Tampa Electric will provide
25 wholesale requirements electric power and transmission

1 service to the cities of Reedy Creek, St. Cloud and
2 Wauchula as well as to Progress Energy Florida, Inc.
3 ("PEF") for a contract that was originally provided to
4 the City of Sebring that PEF took over in 1993. In
5 addition, transmission service provided under the OATT
6 and a pre-OATT transmission agreement with Auburndale
7 Power Partners are included as wholesale customers for
8 jurisdictional separation.

9
10 **Q.** Please summarize the results of the Jurisdictional
11 Separation Study.

12
13 **A.** In 2009, the retail business represents the vast majority
14 of the electric service provided by Tampa Electric. As
15 the results show in Volume I, Jurisdictional Study, the
16 retail business is responsible for 96.3 percent of
17 production plant, 82.3 percent of transmission plant and
18 nearly 100 percent of distribution plant.

19
20 **COST OF SERVICE STUDY**

21 **Q.** What is a Retail Class Allocated Cost of Service and Rate
22 of Return Study ("Cost of Service Study")?

23
24 **A.** The Cost of Service Study is an extension of the
25 Jurisdictional Separation Study. It starts with the

1 retail separated costs derived from the Jurisdictional
2 Separation Study and further allocates and assigns costs
3 to individual retail rate classes. These rate classes
4 represent relatively homogeneous groups of customers
5 having similar service requirements and usage
6 characteristics. Typically, the prices charged for
7 service to different rate classes vary based upon cost of
8 service as well as other factors. Allocations of costs
9 to each of these groups, like the jurisdictional
10 separation, are based upon the results of cost analysis.
11 The Cost of Service Study results are considered, along
12 with other factors described below, in the allocation of
13 the revenue requirement among rate classes when designing
14 rates. The study provides class rates of return at
15 present and proposed rates, class revenue surplus or
16 deficiency from full cost of service, and functional unit
17 cost information for use in rate design. Thus, the study
18 serves as an important factor in determining the revenue
19 requirement by rate class, as well as the specific
20 charges for each rate schedule.

21

22 **Q.** What retail rate classes were used in the preparation of
23 the Cost of Service Study?

24

25 **A.** For purposes of preparing the Cost of Service Study using

1 present rates, existing retail rate classes were used.
2 The rate classes utilized are: 1) Residential, 2) General
3 Service Non-Demand, 3) General Service Demand, 4) General
4 Service Large Demand, 5) Interruptible, and 6) Lighting
5 Energy and Facilities.

6
7 For purposes of preparing the proposed rates, the Cost of
8 Service Study presents a different set of retail rate
9 classes. They are: 1) Residential, 2) General Service
10 Non-Demand, 3) General Service Demand, and 4) Lighting
11 Energy and Facilities.

12
13 **Q.** Why are there two columns of information presented under
14 the present and proposed rates in the Cost of Service
15 Studies for lighting service - Lighting Energy and
16 Lighting Facilities?

17
18 **A.** Dividing the lighting rate class into the two components
19 provides better unit cost information for designing the
20 energy and facilities components of this rate class.

21
22 **Q.** Why are the GSLD and IS rate classes omitted in the
23 proposed rates Cost of Service Study?

24
25 **A.** As I previously stated, the company is proposing to

1 combine the GSD, GSLD and IS rate schedules into a new
2 GSD rate schedule. The proposed rates Cost of Service
3 Study shows only the new GSD class to reflect the
4 proposed rate design as well as the combined class rate
5 of return results.

6
7 **Q.** How is the Cost of Service Study used as a guide in rate
8 design?

9
10 **A.** Cost of service studies are useful in the design of rates
11 to help ensure that the prices customers pay for electric
12 service bear a reasonable relationship to the costs of
13 providing that service. Costing and pricing are two
14 distinct and separate steps in the rate making process.
15 Costing attempts to objectively determine costs incurred
16 in rendering service to the rate classes. While economic
17 considerations and other subjective factors may be
18 considered in the ultimate design of rates, cost of
19 service should be the paramount consideration and the
20 Cost of Service Study provides this information. I
21 describe more fully the rate design process later in my
22 direct testimony.

23
24 **Q.** What were the next steps in the Cost of Service Study
25 process?

1 **A.** Similar to the Jurisdictional Separation Study, the
2 development of cost of service studies consists of: 1)
3 grouping all costs by function (functionalization), 2)
4 classifying the functionalized costs by causal service
5 characteristics (classification), and 3) apportioning the
6 resulting classified costs to rate classes (allocation).

7

8 **Q.** How were Tampa Electric's costs functionalized?

9

10 **A.** The Uniform System of Accounts divides utility plant into
11 the broad functions of production, transmission,
12 distribution, and general. O&M and other expenses are
13 functionalized in a comparable manner. This approach was
14 utilized to functionalize Tampa Electric's costs.

15

16 **Q.** How were Tampa Electric's costs classified after they
17 were functionalized?

18

19 **A.** Tampa Electric's operations are classified into three
20 categories - demand, energy and customer cost. Demand
21 cost is a function of the capacity of plant, which in
22 turn depends on the maximum kW for power by customers.
23 Energy cost is a function of the kWh volume consumed by
24 customers over time. Customer cost is a function of the
25 number of customers service is provided to by the

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company.

Similarly, Tampa Electric's cost of service is measured by these same three cost categories: demand, energy, and customer and the three categories are appropriately called cost causations. The assignment of costs to these cost causation categories is called classification. Once classified, Tampa Electric's costs are then allocated to retail rate classes based upon cost behavior.

Q. Are all of the company's production plant facilities classified as demand related?

A. No. For purposes of jurisdictional separation, all production plant facilities are classified as demand-related consistent with prior jurisdictional separation practices. However, there are portions of two production facilities that are reclassified as energy related for purposes of allocating the FPSC jurisdictional component of these facilities on an energy basis. These facilities consist of the gasifier train equipment ("gasifier") for Polk Unit 1 and the scrubber portion of the environmental equipment for Big Bend Unit 4. Polk Unit 1 is an Integrated Gasified Combined Cycle ("IGCC") plant which has two main sections - the power block, which produces

1 the power through gas turbines and heat recovery steam
2 generators, and the gasifier, which converts coal as the
3 fuel feedstock into gas used in the power block. The
4 gasifier performs a fuel conversion function that is
5 completely associated with the provision of fuel to the
6 unit and not the supply of capacity.

7
8 The classification of the Big Bend Unit 4 scrubber as
9 energy-related was applied in Tampa Electric's last
10 approved cost of service study. This treatment remains
11 appropriate because the main purpose of the plant
12 investment is related to energy output. Since the
13 decision to classify the scrubber investment as energy-
14 related, additional scrubber and Selective Catalytic
15 Removal ("SCR") investments made by the company have been
16 recovered through the Environmental Cost Recovery Clause
17 ("ECRC") where they have been classified and allocated on
18 an energy basis. Customers benefit from lower energy
19 costs as the result of these investments, not primarily
20 because of their contribution to system peak.

21
22 **Q.** How were costs allocated after they were functionalized
23 and classified?

24
25 **A.** After determining the functionalization and

1 classification of costs based upon causation, the tools
2 for cost apportionment to classes were determined. These
3 tools, called allocation factors, were used to measure
4 demand, energy and customer cost responsibilities. The
5 derivation of the allocation factors used in the 2009
6 Cost of Service Study is documented in MFR Schedule E-10.
7

8 **Q.** What are the principal considerations when allocating
9 demand costs?
10

11 **A.** The principal considerations in allocating demand costs
12 include: 1) customer demand usage characteristics and
13 their related responsibility for system coincident and
14 non-coincident peaks, 2) the design and configuration of
15 production, transmission and distribution facilities, and
16 3) unique customer service and/or reliability
17 requirements and system operating data. These
18 considerations provide guidance in determining what
19 components should be used to derive the demand factor.
20 Coincident peak demands, non-coincident peak demands
21 ("NCP"), customer demands, and percentage of energy have
22 been used to best represent those considerations.
23

24 **Q.** Please explain CP, NCP and customer peak demand.
25

1 **A.** Coincident Peak or CP demand reflects a class
2 contribution to the total system monthly peak demand.
3 For example, at the hour of the system peak in one
4 particular month, the CP demand for the residential class
5 would be that class' proportion of that hour's peak
6 demand. NCP demand reflects the monthly peak demand of a
7 class on its own as a group, regardless of when the
8 system peak occurs. For example, a class may peak during
9 the nighttime hours, while the system may peak during the
10 late afternoon. The NCP for that class would be the
11 demand during that nighttime hour. Customer peak demand
12 is the aggregation of all individual customers' monthly
13 peak demands, regardless of when they occur. These
14 different measurements of demand are utilized to allocate
15 different cost elements because those elements represent
16 the best way of identifying what causes certain costs to
17 be incurred.

18

19 **Q.** Please explain the treatment of demand allocated costs in
20 the Cost of Service Study.

21

22 **A.** The Cost of Service Study required by the MFRs allocates
23 production demand costs according to the 12 CP and 1/13
24 AD methodology. This was the approved methodology in the
25 company's last rate proceeding. Under this method,

1 approximately 92 percent or 12/13 of the production
2 demand classified costs are allocated on a 12 CP basis
3 (i.e. the 12 coincident peak demands for the projected
4 test year) and approximately eight percent or 1/13, is
5 allocated on an energy basis. However, the company
6 proposes that the Cost of Service Study used for rate
7 design be modified from the MFR methodology to the 12 CP
8 and 25 percent AD methodology applied to the production
9 demand classified costs to better reflect cost causation.
10 For both methods, transmission demand classified costs
11 are allocated on a 12 CP basis while distribution demand
12 classified costs are allocated on a mixture of NCP and
13 customer demand bases. These allocation approaches are
14 consistent between the two studies.

15
16 **Q.** Why is the company proposing a 12 CP and 25 percent AD
17 methodology for allocation of production demand
18 classified costs?

19
20 **A.** This proposed methodology provides a more appropriate
21 classification and allocation of production plant within
22 the Cost of Service Study when considering how power
23 plants are planned and operated in Florida in response to
24 customer energy and demand needs. The appropriate
25 percentage of production demand classified plant to be

1 allocated on energy has been a debate in Florida for many
2 decades. The percentage in prior Commission-approved
3 studies for Tampa Electric have ranged from eight percent
4 (derived using the 1/13 portion of the 12 CP and 1/13 AD
5 methodology) to over 70 percent (derived from the
6 Equivalent Peaker method approved in 1985). The debate
7 over what is the appropriate percent to be allocated is
8 about how much of the fixed production plant cost is
9 incurred to meet system peak demand and how much is
10 incurred to reduce variable operating costs, primarily
11 fuel, by running the plant beyond peak demand periods.
12 The higher the percentage of average demand applied, the
13 more cost responsibility is allocated to higher load
14 factor customers, and to IS customers under the current
15 rate structure.

16
17 **Q.** Is the type of generation installed important in the
18 selection of the appropriate production demand allocation
19 methodology?

20
21 **A.** Yes, most definitely. The company has installed a
22 significant amount of base- and intermediate-load
23 generation which was more expensive to install than
24 peaking generation, but less expensive to operate over
25 time (including fuel). The base- and intermediate-load

1 generators provide lower fuel costs for each unit of
2 energy produced compared to peakers. Investment in more
3 expensive generating units and associated equipment to
4 provide more efficient fuel conversion for the generation
5 of electricity drives the need to use a greater energy
6 allocation (i.e. 25 percent) within the production demand
7 classified cost allocator. The 25 percent represents a
8 balance between the inadequate 12 CP and 1/13 AD and
9 Equivalent Peaker methodologies. Use of the 12 CP and 25
10 percent AD methodology allocates production demand
11 classified costs to classes in closer proportion to the
12 energy-based benefits those classes receive from those
13 costs. The 12 CP and 25 percent AD methodology, together
14 with the energy classification to certain investments
15 such as the gasifier and Big Bend scrubber equipment
16 described earlier, are essential in capturing the
17 production cost impact of higher load factor and
18 interruptible customers who benefit from the lower
19 variable costs of base- and intermediate-load units.

20
21 **Q.** Would the adoption of the 12 CP and 25 percent AD
22 methodology have implications for other cost recovery
23 mechanisms?

24
25 **A.** Yes. Environmental investment recovered through the ECRC

1 should continue to be classified and allocated on the
2 energy allocator and the remaining production demand
3 classified costs should be allocated on the basis of 12
4 CP and 25 percent AD methodology. Similarly, this
5 methodology should be utilized in the other cost recovery
6 clauses for allocation of production demand classified
7 costs to classes.

8
9 **Q.** Has the Commission previously deviated from the 12 CP and
10 1/13 AD methodology in a base rate proceeding?

11
12 **A.** Yes. As I referred to previously, the Commission relied
13 on the Equivalent Peaker method in Docket No. 850246-EI,
14 Tampa Electric's 1985 base rate proceeding. Also, in
15 FP&L's base rate proceedings, in Docket Nos. 770316-EU
16 and 830465-EI, the Commission approved the allocation of
17 a portion of new nuclear unit production demand
18 classified costs on an energy basis to recognize the fuel
19 savings afforded by their nuclear investment.

20
21 **Q.** Have you prepared an exhibit that compares the results of
22 the two methodologies?

23
24 **A.** Yes. Document No. 3 of my exhibit provides a summary
25 comparison of the class cost of service results of the 12

1 CP and 1/13 AD and 12 CP and 25 percent AD methodologies,
2 and calculates the difference in class revenue
3 requirements for the RS, GS, GSD, and LS rate classes.
4

5 **Q.** Please explain how transmission and distribution costs
6 were treated in the Cost of Service Studies versus how
7 they were treated in the company's last base rate
8 proceeding.
9

10 **A.** The effects of the transmission facility changes that
11 were made in the Jurisdictional Separation Study are
12 further extended to the allocations within the retail
13 classes. These changes include: 1) a total rolled-in
14 cost allocation of Tampa Electric's transmission and
15 subtransmission facilities, 2) generator step-up
16 facilities treated as production capacity related cost,
17 and 3) wholesale firm transmission service sharing in
18 cost responsibility rather than being treated as a
19 revenue credit to cost of service. The changes reflect
20 current Commission practices and are consistent with the
21 cost support provided by the company before FERC in
22 establishing its OATT.
23

24 One particular refinement that has been incorporated in
25 the Cost of Service Studies prepared for this case is

1 associated with the treatment of distribution plant. The
2 new Cost of Service Studies eliminate consideration of
3 directly assigning costs to rate classes for specific
4 service from the distribution networks installed and
5 operated by the company in the downtown and Tampa
6 International Airport areas. Previous efforts to perform
7 such analyses were difficult, incomplete, and did not
8 provide measurable benefit to the cost of service
9 analysis. For the studies presented in this case, an
10 average cost allocation of all distribution facilities to
11 the retail classes has been applied and is a more
12 appropriate methodology.

13
14 A number of other refinements were made to the
15 classification of costs utilized in previous cost of
16 service studies to be more consistent with the
17 classifications suggested by National Association of
18 Regulatory Utility Commission guidelines in their
19 Electric Utility Cost Allocation Manual. These
20 refinements were primarily related to the classification
21 of production O&M and administrative and general costs.

22
23 **Q.** How were energy and customer costs allocated?

24
25 **A.** Annual energy consumption of the classes is used for

1 allocating energy-classified costs. Such consumption
2 must reflect the level at which it is consumed for
3 allocation, either at the meter or generator. The
4 weighted number of customers or customer bills during the
5 year is used for allocating customer-related costs.
6

7 **Q.** Do Tampa Electric's 12 CP and 25 percent AD methodology
8 Cost of Service Studies reasonably allocate costs between
9 rate classes within the retail jurisdiction?
10

11 **A.** Yes. All of the filed studies comply with Commission
12 rules and regulations. The 12 CP and 25 percent AD
13 methodology Cost of Service Studies produce reasonable
14 and appropriate allocations of the costs to serve the
15 retail rate classes.
16

17 **Q.** In preparing the Cost of Service Studies, did the company
18 consider demand-side management ("DSM") programs as an
19 alternative costing treatment for IS customers?
20

21 **A.** Yes. As previously stated, in Tampa Electric's last rate
22 proceeding, the company was ordered in Commission Order
23 No. PSC-93-0165-ROR-EI, as it relates to the IS rate
24 class, to file in the company's next rate proceeding:

25 "...a cost study which allocates costs to this

1 class(es) based on their load characteristics
2 and a study which develops a Coincident CP kW
3 credit based on avoided cost...".
4

5 **Q.** What DSM treatment is the company providing as an
6 alternative to cost of service treatment for IS customers
7 in complying with this prior order?
8

9 **A.** The company is providing and proposing that the GSLM-2
10 and GSLM-3 interruptible conservation programs, which are
11 service riders to the GSD rate schedule, be utilized to
12 provide current and future service to general service
13 interruptible customers. Consequently, the IS class in
14 the 2009 proposed rates Cost of Service Study has been
15 eliminated to reflect the transfer of all such customers
16 to the GSD rate schedule and the GSLM-2 or GSLM-3 service
17 riders. By transferring IS rate schedule customers to
18 the firm GSD rate schedule and their taking service under
19 the two interruptible conservation programs, GSLM-2 and
20 GSLM-3, the current IS customers are combined with the
21 GSD customers in the 2009 proposed rates Cost of Service
22 Studies. I provide a detailed description of this rate
23 treatment later in my direct testimony.
24

25 **Q.** In the present rates Cost of Service Study, there is a

1 column for GSLD that is not in the proposed rates Cost of
2 Service Study. Please explain this change.

3
4 **A.** Because the company is also proposing to combine the GSLD
5 rate into the GSD rate schedule, there is no longer a
6 need to include a GSLD column in the Cost of Service
7 Study for proposed rates. The present GSD and GSLD base
8 rate charges for energy and demand are nearly identical,
9 with the only real difference being the customer charge
10 that reflects the different percentage of customers
11 taking service at a higher voltage level, and the
12 application of a power factor clause for GSLD. The
13 customer charge difference becomes moot with the proposed
14 design of voltage level customer charges for the combined
15 GSD rate, and it better reflects the metering costs to
16 the customers who cause them. The power factor can be
17 accommodated in the newly combined GSD rate by simply
18 making it applicable to customers who exceed the 1,000 kW
19 threshold that was applied under the present rates. With
20 these rate design changes, it is reasonable and
21 appropriate to combine the rate schedules.

22
23 **RATE DESIGN**

24 **Q.** What criteria and objectives were used in designing the
25 new rate schedules and how were they used in the rate

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design?

A. The basic criteria used in designing Tampa Electric's new rate schedules included: 1) cost to serve the various classes, 2) rate history, 3) public acceptance of rate structures, 4) customer understanding and ease of application, 5) consumption and load characteristics of the classes, and 6) revenue stability and continuity. This Commission has recognized these criteria as appropriate rate design criteria.

Cost to serve is a major consideration in rate design and in the preparation of the Cost of Service Study. The utilization of derived unit cost is a major tool utilized in the design of the company's proposed rates.

Rate history is another important tool. This includes understanding how Tampa Electric rates were designed in the past, whether they have achieved their intended objectives and what rate structures have been successfully applied in Florida and around the country by other utilities. I have worked in the regulatory area at Tampa Electric for almost 25 years and am well aware of the company's rate history. In addition, I track rate decisions made by the Commission that affect other

1 jurisdictional electric utilities and participate
2 frequently in EEI and SEE rate committee meetings where
3 alternative rate designs, as well as successes and
4 failures of such rates, are discussed.

5
6 Public acceptance of rate structures, customer
7 understanding, and ease of application are important
8 considerations. I obtain information from frequent
9 contact with the company's customer service team members
10 and interaction with some customers that I factor into my
11 work.

12
13 Class consumption and load characteristics are utilized
14 both within the Cost of Service Study as well as in the
15 proposed design in developing appropriate projected
16 billing determinants to assure successful recovery of
17 revenue requirements. Revenue stability and continuity
18 are criteria that factor into the rate design when
19 selection of appropriate billing units to apply under the
20 rates is considered, as well as the appropriate forecast
21 of those billing units.

22
23 Q. With these criteria in mind, did the company have
24 specific objectives that were considered in the proposed
25 rate design?

1 **A.** Yes. First and foremost, rates should be designed for
2 each rate schedule such that their application to the
3 test year billing determinants produces the target class
4 revenues. There are five other specific objectives that
5 the company sought to accomplish: 1) to design rates,
6 especially for the residential class, that produce
7 conservation-oriented price signals, 2) to provide
8 interruptible service to new and existing customers on a
9 cost effective rate, 3) to eliminate duplicative demand
10 billed rate schedules and combine these under a single
11 rate schedule, 4) to establish time-of-day rates for GS
12 and GSD service to provide a greater incentive to shift
13 energy consumption to the off-peak period, and 5) to
14 reorganize the company's three lighting service rate
15 schedules into a single lighting rate schedule that will
16 facilitate more efficient and understandable rates and
17 services while recognizing the common cost of providing
18 that service.

19
20 **Q.** Were these objectives met in the design of the company's
21 proposed rates and tariffs?

22
23 **A.** Yes. The proposed rates and tariffs incorporate all five
24 of these objectives.

25

1 Q. Were the new rates designed to produce the requested
2 additional revenues?

3
4 A. Yes. The proposed rate schedules shown in MFR Schedule
5 E-14 present new rates designed to produce \$228,196,000
6 in additional revenues. This consists of \$221,380,000 of
7 additional billed electric base sales revenues, negative
8 \$301,000 of additional unbilled electric base sales
9 revenues, and \$7,117,000 of additional service charge
10 revenues. The proposed rates total the company's revenue
11 requirements.

12
13 **PROPOSED SERVICE CHARGES**

14 Q. What was your first step in designing rates and charges
15 to produce the company's revenue requirement?

16
17 A. The first step was to determine service charges. Cost
18 support for all service charges is provided in MFR
19 Schedule E-13b. The service charges requested include
20 three new tariff charges along with revisions to the
21 existing tariff charges. In total, the requested changes
22 produce \$7,117,000 in additional revenue. These revenues
23 serve as a credit to offset a portion of the revenue
24 requirement that would otherwise increase the company's
25 base rates.

1 Q. Please describe the three new service charges.

2

3 A. Two of the new charges provide a convenience service
4 option for customers seeking to reconnect electric
5 service on an accelerated basis or after normal business
6 hours. The first is a Connection Charge applied to the
7 re-establishment of service to accommodate a special
8 customer request for same day service. Such special
9 requests must be made prior to 6:00 P.M. of that day.
10 Currently customers receive re-establishment of service
11 on the next business day. This Connection Charge will
12 cost \$40 more than the proposed fee for standard
13 connection, but will provide a convenience option for
14 customers who are in need of more immediate service.

15

16 The second new charge is for the re-establishment of
17 service on Saturdays from 8:00 A.M. to 12:00 noon, to
18 accommodate special customer requests. Such special
19 requests must be made by 12:00 noon on the prior Friday.
20 Currently, connections are only made during normal
21 business days and providing this new service for a
22 Saturday connection will necessitate calling out crews to
23 perform the work. While this option is being offered at
24 a price that is \$275 more than the proposed fee for
25 standard connection, it will provide another option for

1 customers who desire more immediate connection service
2 and are willing to pay the additional cost.

3
4 The third new charge is a Tampering Charge applicable to
5 customers whose unauthorized use of service is discovered
6 and associated investigative costs and damages are
7 limited and minimal. The current tariff provides that
8 charges may be assessed based on unauthorized or
9 fraudulent use, but this charge is not intended for
10 instances where a detailed and full investigation is
11 required to determine the exact amount of such use. In
12 these instances, Tampa Electric will continue its
13 practice of identifying the actual costs and assessing
14 them as authorized by the tariff. The new charge is
15 designed to recover the costs of discovering and
16 confirming tampering where the cost of investigating and
17 estimating is greater than the damages. This charge is
18 being established to simplify the calculation of charges
19 in cases when investigation and further analysis is not
20 cost effective or warranted.

21
22 **Q.** What changes are being proposed for the company's
23 existing service charges?

24
25 **A.** With the exception of the Late Payment and Returned Check

1 charges, all existing charges have increased to reflect
2 the increased cost of providing the services. The
3 proposed increases result in reasonable service charges.

4
5 While there is no proposed change to the Late Payment
6 charge itself, the company is proposing that a \$5.00
7 minimum charge be established for all bills subject to a
8 late payment of \$10.00 or more. Such a minimum has
9 already been approved by the Commission for PEF, FP&L
10 and, most recently for, Florida Public Utilities Company.

11
12 The company is also proposing a change to the tariff
13 language for the Returned Check Charge to read, "A
14 Returned Check Charge as allowed by Section 68.065,
15 Florida Statutes, shall apply for each check or draft
16 dishonored by the bank upon which it is drawn." Tampa
17 Electric's current Returned Check Charge is set at the
18 limit allowed by law, but this language change will
19 facilitate future changes to the charge should that limit
20 be changed without the need for tariff changes.

21
22 **PROPOSED BASE RATES**

23 **Q.** After setting prices for service charges, what was the
24 next step in designing rates?

1 **A.** The next step was to design base rates. In designing new
2 rates, the company first attempted to move unit prices
3 toward unit costs for the various classes to determine
4 parity. Parity is a comparison of a class rate of return
5 to the system average rate of return and the term is used
6 interchangeably with the term rate of return index.
7 Since parity is calculated by dividing the rate of return
8 for a particular class by the system average rate of
9 return, a class with parity of 100 percent would be
10 earning the same rate of return as the system average and
11 a class with parity below 100 percent would be earning
12 less than the system average. Parity is useful when
13 determining the development of class revenue targets
14 associated with the proposed base rate revenue increase.

15
16 **Q.** Please describe the procedure used to determine what
17 portion of the company's proposed base rate revenue
18 increase should be assigned to each rate class.

19
20 **A.** The starting point in determining the portion or
21 percentage of the company's proposed base rate revenue
22 increase to be assigned to each rate class is the Cost of
23 Service Study. For this purpose, the Cost of Service
24 Study using the 12 CP and 25 percent AD methodology at
25 present rates was relied upon. In this Study, the IS

1 class was retained but was allocated full production
2 capacity costs like all the other classes based on their
3 full load characteristics. The goal was to compare
4 present revenue for each class to the class cost of
5 service requirement and distribute the revenue increase
6 to classes in proportion to their deficiency to the
7 extent practical.

8
9 **Q.** Did you prepare a document that sets out the procedure
10 used to develop the target revenue increase for each of
11 the company's rate classes?

12
13 **A.** Yes, Document No. 4 of my exhibit was prepared for that
14 purpose. Column (A) shows the allocated cost of service
15 resulting from the Cost of Service Study for each class.
16 These amounts are reduced by additional revenues that are
17 projected to be realized from an increase in service
18 charges as shown in column (B). This net revenue
19 requirement for each rate class (column C) forms the
20 basis for comparison to revenues calculated under present
21 rates for each class.

22
23 At this point, present revenue for each class could have
24 been subtracted from the cost of service requirement to
25 establish any class deficiency or surplus of revenue from

1 cost. However, it is better to first recognize that,
2 independent of any rate change due to the company's
3 proposed revenue increase, base revenue for each class
4 would need to be adjusted to recognize the rate treatment
5 being proposed for IS customers. Under the proposed
6 treatment, the base cost requirement for non-IS customers
7 is reduced and the IS customers' base cost requirement is
8 increased to reflect the full sharing of production
9 demand related costs by the full load responsibility of
10 the IS customers. Associated with this treatment is the
11 increased cost responsibility to the non-IS rate classes
12 of the cost for the proposed increase in conservation
13 credits made to the transferred IS customers and
14 recovered through the Energy Conservation Cost Recovery
15 Clause ("ECCR"). This change of cost recovery between
16 base rates and the ECCR should result in no change in
17 each class' total revenues, but does result in an
18 effective different level of present base revenues and
19 should be adjusted prior to applying the requested
20 increase in base revenues. The results of this effect
21 are shown in column (F).

22
23 Next, column (G) shows the calculation of the revenue
24 deficiency or surplus for each class after comparing the
25 class cost requirement to the adjusted present class

1 sales revenue. Again, the goal is to distribute the
2 proposed revenue increase in proportion to the revenue
3 deficiency for each class to the extent practical. This
4 distribution is shown in column (I) with three noteworthy
5 considerations. First, since the base rates of the GS
6 class have traditionally been set equal to the RS class,
7 these two classes have been combined into one for
8 purposes of this calculation. Second, the present rate
9 classes of GSD, GSLD and IS have been combined to
10 represent the proposed changes to the GS rate structure,
11 and therefore, are treated as one grouping for this
12 calculation. Third, a specific amount of revenue change
13 for the facilities portion of the lighting class revenues
14 has been assigned to reflect the revenue effect related
15 to the proposed restructuring of the lighting rate
16 schedules.

17
18 The final step is to add the proposed increase for each
19 class, presented in column (I), to the adjusted present
20 revenue of column (F) while taking into account the
21 effect of proposed rates on unbilled revenue, which is
22 shown in column (M). This results in the final target
23 sales revenues for each class shown in column (N). These
24 are the class sales revenues used to design the proposed
25 rate charges.

1 Q. Does your proposed rate design move rates closer to
2 parity?

3
4 A. Yes. In effect, the billing determinants for each unit
5 price can be considered a class of customers. Moving the
6 unit price for each billing determinant closer to cost is
7 consistent with considering the cost to serve each rate
8 class. Thus, in designing the unit prices to recover the
9 targeted revenue for the rate schedule, the unit prices
10 were moved toward the unit costs. This maintains
11 consistency between the philosophy adopted for allocating
12 the increase among the classes and the philosophy adopted
13 for allocating the increases among the unit prices paid
14 by customers within the classes.

15
16 Q. Was the company able to design each rate at 100 percent
17 of parity under the cost methodology selected?

18
19 A. No, not fully. However, consistent with the rate design
20 criteria discussed above, each rate class was designed to
21 move as close to 100 percent of parity as practical as
22 defined by the 12 CP and 25 percent AD methodology Cost
23 of Service Study. It is important to note that full
24 moves to parity can cause disproportionate increases to
25 some classes. While cost of service is a very important

1 consideration in rate design, it is not the only factor
2 the Commission should use to determine the level of
3 rates.

4
5 **Q.** How close to parity are the rate classes for the proposed
6 rates?

7
8 **A.** Overall, most rate classes are close to parity. A parity
9 ratio of 1.00 indicates rates are set exactly on the cost
10 of service as measured by the particular cost study
11 selected. A ratio of less than 1.00 indicates that class
12 is served below cost and a class ratio of more than 1.00
13 indicates that class is served above cost. The results
14 are shown in Document No. 5 of my exhibit.

15
16 **CONSERVATION-ORIENTED PRICING**

17 **Q.** Please discuss how the proposed rate design meets the
18 objective of providing conservation-oriented price
19 signals in rate design for the residential class.

20
21 **A.** Tampa Electric is restructuring its residential rate
22 schedule offerings to meet this objective. First, the
23 company is proposing that the RS standard service rate
24 schedule be changed from a flat base energy rate to a
25 two-block, inverted base energy rate design, with the

1 break point at 1,000 kWh and a \$0.01 per kWh differential
2 between the two blocks.

3
4 Second, the company is proposing that the base rate
5 energy charge for the Residential Service Variable
6 Pricing ("RSVP") rate, the recently approved rate
7 schedule supporting the company's critical peak pricing
8 conservation program, remain flat to help customers focus
9 on shifting usage patterns and reducing usage in the
10 higher price periods.

11
12 Third, the company is proposing that the Residential
13 Service Time-of-Day ("RST") rate schedule be eliminated
14 and the 40 customers currently taking service under that
15 schedule be transferred to either the RSVP or the
16 standard RS rate, at their choice. These rates are more
17 conservation oriented than the RST rate. For purposes of
18 this filing, the billing determinants assume that all
19 customers will choose to transfer to the RSVP rate
20 schedule.

21
22 **Q.** Why is the company proposing that the RS rate schedule be
23 changed from a flat energy rate to an inverted energy
24 rate?

25

1 **A.** An inverted base energy rate is becoming a standard in
2 Florida with the Commission having approved such rates
3 for FP&L and PEF. The higher rate at the second block,
4 above 1,000 kWh, provides a price signal to customers
5 about energy use that can serve as a way to encourage
6 energy conservation while the lower first block rate
7 provides a billing benefit to lower use customers.

8
9 To fully take advantage of this conservation-oriented
10 rate design and provide a further incentive, the company
11 will seek Commission approval for an inverted fuel factor
12 with a 1,000 kWh inversion point and a \$0.01 per kWh
13 price differential to be effective in January 2009. The
14 proposed inverted base and fuel charges were used for the
15 purposes of showing bill impacts in MFR Schedule A-2.

16
17 **Q.** Why is the company proposing only two blocks for the
18 inverted rate design?

19
20 **A.** The two block rate design has received broad acceptance
21 in Florida and applying this design for Tampa Electric's
22 initial inverted rate design should achieve similar
23 customer acceptance and ease of understanding.

24
25 **Q.** What is the RSVP rate schedule?

1 **A.** The RSVP rate is a critical peak pricing conservation
2 program offered by Tampa Electric. RSVP was piloted in
3 2006 and 2007 and was approved by the Commission for full
4 implementation in 2007. Under this program, a customer
5 is provided time differentiated pricing signals as well
6 as a critical peak pricing signal that can occur at any
7 time although it is limited to no more than 134 hours per
8 year. The program includes a programmable thermostat
9 that links up through the home wiring with control
10 devices on the customer's water heater, heating and
11 cooling equipment, and pool pump. This provides the
12 customer an automated process to control high energy
13 consuming equipment and reduce or increase energy usage
14 in reaction to pricing signals. The program has proven
15 to be an effective program that achieves conservation of
16 demand and energy.

17
18 Because the RSVP rate already has substantial price
19 differentials designed to induce conservation and load
20 shifting behavior by the customer, the proposed rate does
21 not include the two-block inverted rate design. Making
22 such a change would not be cost effective and could lead
23 to customer confusion. Consequently, a flat base energy
24 rate is still appropriate for the RSVP rate.

25

1 Q. Why is the company proposing to eliminate the RST rate
2 and transfer customers currently served under this rate
3 to either the standard RS rate or the RSVP rate?
4

5 A. The RST rate schedule has never been popular since its
6 inception in the 1980s, and it does not make sense to
7 maintain it for the 40 or so customers who are on it.
8 The company's RSVP rate has strong customer acceptance
9 and the company believes that most, if not all, of the
10 current RST customers will find the RSVP rate schedule a
11 more than satisfactory replacement. If any RST customer
12 does not desire to transfer to the RSVP rate schedule,
13 they may select the RS rate.
14

15 Certain customers who take service under the RST rate
16 schedule do not reside in single-family homes, a current
17 requirement for service, so they will not be eligible to
18 be transferred immediately to RSVP. Tampa Electric is
19 working on a technology advancement that will ultimately
20 enable these customers to take service under this rate
21 schedule. This technology advancement is expected to be
22 available in 2009 but, in the event it is not available
23 when the proposed rate change goes into effect, Tampa
24 Electric will transfer these current RST customers to the
25 standard RS rate schedule until RSVP is available and can

1 be offered.

2

3 **PROPOSED INTERRUPTIBLE SERVICE RATE DESIGN**

4 **Q.** What rate restructuring is the company proposing to meet
5 its rate design objective of providing interruptible
6 service to new and existing customers on a cost-effective
7 rate?

8

9 **A.** As previously described, the company is proposing to: 1)
10 eliminate the currently closed to new business IS rate
11 schedules, 2) transfer these customers to the appropriate
12 GSD, GSDT or Standby Firm ("SBF") rate schedule, and 3)
13 provide the customers with interruptible service options
14 under the appropriate currently open GSLM-2 and GSLM-3
15 riders.

16

17 **Q.** Why is the company proposing to make this change?

18

19 **A.** The IS-1 rate schedules were closed to new business in
20 1985 and the IS-3 rate schedules were closed to new
21 business in 2000 when the GSLM-2 and GSLM-3 conservation
22 programs were opened. The Commission has allowed
23 customers served under the IS-1 and IS-3 rate schedules
24 to continue service under these rate schedules even
25 though they are no longer cost effective. This

1 proceeding provides the best opportunity to accomplish a
2 transfer and permanently eliminate the IS-1 and IS-3 rate
3 schedules with limited impact to the customers still
4 served under those schedules.

5
6 The primary benefit of transferring IS customers to the
7 GSLM-2 and GSLM-3 interruptible conservation programs is
8 to ensure that such load is provided under a cost-
9 effective rate schedule so that firm customers will not
10 be required to provide a long-term subsidy to
11 interruptible load. Under the GSD rate and the GSLM-2
12 and 3 conservation programs, the credit for interruptible
13 service will track avoided cost and be commensurate with
14 the benefits IS customers provide to the overall
15 ratepayers.

16
17 **Q.** How is the responsibility for allocation of production
18 capacity costs determined for IS customers?

19
20 **A.** Historically, IS customers have received a minimal
21 allocation of production capacity cost under a 12 CP and
22 1/13 AD methodology. This minimal allocation is a result
23 of assuming zero 12 CP load responsibility and an average
24 demand load responsibility for 1/13 or approximately
25 eight percent of the production capacity costs. As

1 described earlier, the company is proposing a more
2 appropriate cost of service approach that increases the
3 weighting of average demand to 25 percent. Absent any
4 other changes proposed by the company with regard to
5 interruptible service, this change would result in IS
6 customers sharing in an increased percentage of the
7 production capacity cost, with all other customers
8 responsible for the remaining production capacity costs.
9

10 **Q.** You have described the allocation of production capacity
11 costs to IS customers through the cost of service study.
12 How will production energy costs be allocated?
13

14 **A.** Unlike production capacity costs which have a limited
15 allocation, IS customers receive a full allocation of
16 production energy costs. As described earlier, the
17 company has identified and classified certain production
18 investments, such as the Big Bend Unit 4 scrubber and
19 IGCC gasifier as energy, to better reflect their use in
20 providing service to all customers. This results in a
21 higher energy cost allocation to IS customers and
22 supports higher rate levels absent any further changes.
23

24 The changes in allocation of both production capacity
25 costs and energy costs are reflected in the Cost of

1 Service Studies presented by the company reflecting its
2 present rate structure. In the Cost of Service Studies
3 that reflect the proposed rates, the load of these
4 current interruptible customers is transferred to the new
5 GSD class and full 12 CP load is recognized in the
6 production capacity cost allocation. As a result, the
7 non-interruptible customers are then allocated a lower
8 portion of those costs.

9
10 **Q.** With this proposed change, how will the IS customers
11 being transferred to GSD receive a benefit for being
12 interruptible?

13
14 **A.** The customers previously served under IS rates and being
15 transferred to the GSD rate schedule will receive a
16 credit under the GSLM-2 or GSLM-3 conservation program
17 rate riders.

18
19 **Q.** What is the basis for the credit under the GSLM-2 and
20 GSLM-3 riders?

21
22 **A.** As a conservation program, the credit provided under
23 these riders is based on the cost of the company's latest
24 avoided unit. By tracking avoided cost rather than an
25 allocation process in a cost of service study, the

1 benefits of interruptible service provided by these
2 transferred customers to the system will be commensurate
3 with a lower bill via a conservation credit. For 2009,
4 the applicable credit is proposed to be a load factor
5 adjusted \$10.91 per kW and it has been utilized in this
6 filing.

7
8 **Q.** Will IS customers face annual changes to the credit
9 offered under GSLM-2 and GSLM-3 as new avoided units are
10 designated?

11
12 **A.** No. Under the GSLM-2 and GSLM-3 conservation programs,
13 the credit applied in the first year is locked-in for a
14 three-year period, which coincides with the three-year
15 commitment required under the current program.
16 Therefore, customers under the new program can plan for
17 this credit level for up to three years. In addition, at
18 any point during the three-year period, the customer may
19 choose to lock-in at the then current credit for a new
20 three-year period.

21
22 **Q.** Will transferred interruptible customers still have
23 Optional Provision purchased power available to them and,
24 if so, is the company proposing any changes to this
25 provision?

1 **A.** Yes. The Optional Provision purchased power that has
2 been available to customers under the IS rate schedules
3 in the past to help minimize interruptions will be
4 available under the GSLM-2 and GSLM-3 riders. The only
5 change the company is proposing to make is to update the
6 charge for associated administration from two mills per
7 kWh to three mills.

8
9 **Q.** Under the proposed rate restructuring for interruptible
10 customers, should these customers also be responsible for
11 their full 12 CP load share of production capacity costs
12 being recovered in the company's cost recovery clauses?

13
14 **A.** Yes. The interruptible customers should not be treated
15 differently than other customers regarding their share of
16 production capacity costs, whether the costs are being
17 recovered through base rates or cost recovery clauses.
18 The compensation being afforded for their
19 interruptibility is being provided fully by credits under
20 the GSLM-2 and GSLM-3 riders. This is consistent with
21 the treatment afforded residential load for customers
22 receiving payments under the RSVP-1 rate and the Prime
23 Time load management program.

24
25 **Q.** Does this mean that the recovery factors for all rate

1 classes in the company's cost recovery clauses need to
2 change when the proposed base rate changes go into
3 effect?

4
5 **A.** Yes. Recovery factors for the Capacity Cost Recovery
6 Clause ("CCRC"), ECRC and ECCR need to be revised when
7 the proposed changes become effective. These revisions
8 are necessary for three reasons. The first is that CCRC,
9 ECRC and ECCR are designed to recover costs, including
10 production capacity related costs. Under the proposed
11 restructuring, transferred interruptible customers will
12 now be responsible for their full 12 CP load share of
13 production capacity related costs. This has the effect
14 of reducing the recovery factors for non-interruptible
15 customers.

16
17 Second, since the proposed treatment for interruptible
18 load is a conservation program, the credits being paid to
19 interruptible customers are additional costs that must be
20 recovered from all customers through the ECCR. Thus, all
21 ratepayers will incur a higher ECCR charge. However, the
22 associated non-interruptible customers' increase is
23 offset primarily by a lower cost responsibility in the
24 Cost of Service Study allocation of production capacity
25 costs to be included in their base rates.

1 Third, with the proposed change in production capacity
2 cost allocation method in the Cost of Service Study to 12
3 CP and 25 percent AD methodology, a concurrent change in
4 allocation of production capacity cost in the clauses is
5 proposed to maintain consistency in allocation. In MFR
6 Schedule A-2, the CCRC and ECCR recovery factors, which
7 are proposed to become effective with the revised rate
8 structure, have been designed to be applicable to GSD
9 standard rate customers' billing demand rather than kWh
10 use.

11
12 **Q.** Why is the company making this recovery methodology
13 change for this rate group?

14
15 **A.** The customers under the proposed GSD standard rate are
16 the only customers for which demand is measured and for
17 which demand charges can be assessed. Since CCRC and
18 ECCR costs are predominantly demand related costs, it is
19 appropriate to recover these costs on a billing demand
20 basis. This recovery methodology has been deemed
21 appropriate by the Commission in its decision to approve
22 FP&L's request to recover costs in this manner. The
23 company is proposing this change become effective at the
24 same time that the base rates under the new GSD rate
25 schedule become effective.

1 Q. Have the effects of all these proposed changes been
2 presented in the company's filing?

3
4 A. Yes. The proposed charges utilized in the billing
5 comparisons provided in MFR Schedule A-2 incorporate
6 revised billing adjustments that reflect these changes.
7 The billing comparisons shown on MFR Schedule A-2 for
8 interruptible customers include the proposed conservation
9 program credit as a reduction to the proposed base rate
10 charges.

11
12 **PROPOSED GSD RATE DESIGN**

13 Q. How does the proposed GSD rate design meet the company's
14 objective of combining duplicative demand billed rates
15 under a single rate schedule?

16
17 A. The present design of GSD and GSLD rates has both
18 schedules priced at the same base demand and energy rates
19 with different customer charges, although only GSLD has a
20 power factor penalty/credit mechanism. The break point
21 between the two schedules is 1,000 kW in billing demand.
22 The company is proposing that these two rate schedules,
23 along with the IS customers being transferred to GSD
24 service and subject to the GSLM riders, be served under a
25 single GSD rate schedule. Power factor penalties and

1 credits would be applied only to transferred customers in
2 excess of 1,000 kW because the risk of poor power factor
3 affecting other customers is greater from customers with
4 large demand requirements. Combining all demand billing
5 customers under one rate schedule will simplify the
6 provision of service to this important customer group and
7 provide a better matching of the cost of providing
8 service.

9
10 **Q.** Is the company proposing to continue offering an
11 optional, energy only rate for GSD service?

12
13 **A.** Yes. As approved in the company's last rate order, the
14 company is proposing to continue offering an optional,
15 energy only rate for GSD service. The proposed base
16 energy charge for this optional rate is set equal to 120
17 percent of the GS energy charge as was established by the
18 Commission.

19
20 **Q.** Are there any other rate design changes the company is
21 proposing for the combined GSD rate schedule?

22
23 **A.** Yes. The company is proposing different customer charges
24 based on the voltage level at which the customer is
25 metered: secondary, primary or subtransmission.

1 Q. What is the basis for the proposed voltage level customer
2 charges for GSD?

3
4 A. The proposed GSD customer charges are designed to recover
5 the cost of metering, meter reading, billing, and
6 customer service. The largest component of these is the
7 metering cost, which can vary greatly depending on the
8 voltage level established for metering. Higher voltage
9 metering requires more expensive metering equipment as
10 well as associated instrument transformation equipment.
11 These costs are the basis of the difference in the design
12 of the current GSD and GSLD customer charges. Combining
13 the GSD, GSLD and IS customers into the new GSD class
14 without a differentiation in customer charge would lead
15 to inequity in the rate design for the combined group.
16 The company is proposing a \$57 customer charge for
17 secondary customers, \$130 for primary, and \$930 for
18 subtransmission compared to the current charges of \$42
19 for GSD, \$255 for GSLD, and \$1,000 for IS. The new
20 voltage level charges are cost based and they
21 appropriately recognize the cost of service differences
22 to customers under the new combined GSD rate schedule.

23
24 Q. Are there other rate changes proposed for the GSD tariff
25 rate terms and conditions?

1 **A.** Yes. The company is proposing an increase in the
2 transformer ownership discounts and the emergency relay
3 service charges based on updated costs. The company is
4 also proposing a change to the application of the
5 transformer ownership discounts. Transformer ownership
6 discounts will apply to service voltages as newly defined
7 in the tariff. This approach changes the prior
8 application of transformer ownership discount for primary
9 service by making such discounts applicable to all
10 customers who take primary service.

11
12 **Q** Are there any changes proposed for the standby rate
13 schedules?

14
15 **A.** Consistent with the changes being proposed for the
16 interruptible rate schedules, the standby rate schedules
17 SBI-1 and SBI-3 are being eliminated and customers under
18 these rate schedules will take service under SBF or SBFT,
19 along with the GSLM-3 rider. The proposed charges for
20 SBF and SBFT have been determined in the manner
21 prescribed by the Commission for the design of standby
22 rates.

23
24 **Q.** Are there portions of the current GSD rates, terms and
25 conditions the company is proposing to remain the same?

1 **A.** Yes. The company is proposing that the meter level
2 discount of one percent for primary service and two
3 percent for subtransmission service remain the same.
4 These percentages are intended to recognize
5 transformation losses and are typical of values used for
6 this purpose. The company is proposing that this
7 discount should also apply to the transformer ownership
8 discount, emergency relay charge, and power factor
9 penalty and credit billings. In addition, after analysis
10 on the cost of capacitor investment which was the basis
11 for the current charge, the company is proposing that the
12 power factor charge of \$2.00/kVARh and credit of
13 \$1.00/kVARh remain the same.

14
15 **Q.** Are there proposed changes to the applicability section
16 for Rate Schedules GS and GSD?

17
18 **A.** Yes. Currently, the upper threshold under Rate Schedule
19 GS is for customers "...whose highest measured 30-minute
20 interval demand has not exceeded 49 kW for twelve (12)
21 consecutive monthly billing periods...". A similar lower
22 threshold applies to Rate Schedule GSD. The kW threshold
23 schedule necessitates that many GS customers be put on a
24 demand registered meter simply to determine when they
25 have passed this threshold. The company is proposing

1 that this threshold and the related threshold for GSD be
2 changed to a kWh level above which the customer would
3 take service under GSD. The proposed threshold is 9,000
4 kWh for a billing period. Establishing this energy
5 threshold for GS and GSD customers will facilitate
6 transition from one rate class to another and will reduce
7 the need for demand meters for this purpose.

8
9 **Q.** Will the company's proposed rate changes to its general
10 service rate schedules (GS, GSD, GSLD and IS) result in
11 any customers being transferred to another rate schedule
12 other than the IS and GSLD changes previously discussed?

13
14 **A.** Yes. The company's proposed restructuring will
15 necessitate some customers being transferred from their
16 current designated rate schedule due to the proposed
17 applicability for the GS and GSD rate schedules changing
18 to a 9,000 kWh threshold to replace the prior threshold
19 of 50 kW. This change requires a transfer of some
20 customers from GS to GSD and others from GSD to GS. The
21 GSD rate has an optional rate offering that allows
22 customers with low load factors to be billed on an energy
23 only rate that would be more beneficial. This allows
24 some customers who must transfer to GSD from GS to be
25 able to take advantage of the optional rate while others

1 would be more advantaged under the standard rate. Due to
2 this revision to the applicability criteria between GS
3 and GSD, transfers between GS and GSD are somewhat
4 difficult to ascertain and will require individual
5 analysis.

6
7 To assist in the analysis of projected customer transfers
8 between GS and standard or optional GSD under the
9 proposed rates, a database was created consisting of 12
10 months of billing information from 2007 and 2008 for each
11 general service customer. Each customer was analyzed to
12 determine which general service rate schedule would apply
13 under the proposed rate structure, and where options are
14 available as described above, which rate would be most
15 beneficial. The analysis shows that about 1,100
16 customers would be required to transfer from the present
17 GS to the proposed GSD rate schedule as a result of
18 exceeding the 9,000 kWh threshold. Of these, 300 would
19 be benefited by transferring to the GSD optional rate.
20 The analysis also shows that about 1,000 of the present
21 GSD customers do not exceed the 9,000 kWh threshold and
22 should not elect to remain under the GSD rate schedule,
23 and therefore should transfer to the GS rate. Tampa
24 Electric has in the past, and will continue to permit any
25 customer who would normally be served under the GS rate

1 to take service under GSD if such service results in
2 lower bills. All of the transfers determined from this
3 analysis have been reflected in the proposed billing
4 determinants, cost of service analysis, rate design and
5 proposed revenue projections.

6
7 Because of the numerous proposed changes, it is important
8 to note that, if some of the proposals are not adopted as
9 proposed, the company requests that it be permitted to
10 test the impacts that the revision(s) would have on
11 transfers. Where transfers are likely to occur, the
12 billing determinants for the affected rate schedules
13 should be revised to reflect the post-transfer effect.
14 This process is laborious and iterative, but it is
15 essential before the final general service rate charges
16 are established to ensure the achieved rates will recover
17 the approved revenue requirement.

18
19 **TIME-OF-DAY AND LIGHTING SERVICE RATE DESIGN**

20 **Q.** Please discuss how the proposed general service time-of-
21 day rate design meets the company's objective of
22 designing time-of-day rates to better reflect the cost of
23 providing service.

24
25 **A.** The proposed time-of-day rate calculations result in

1 greater price differentials between on-peak and off-peak
2 periods, which provide a greater incentive for customers
3 to shift their usage. In addition, the proposed total
4 time-of-day demand charges no longer exceed the standard
5 rate demand charge.

6
7 **Q.** How does the proposed rate design meet the company's
8 objective of consolidating its three lighting service
9 rate schedules into one?

10
11 **A.** Tampa Electric presently provides street and area
12 lighting service under three rate schedules: OL-1, OL-3
13 and SL-2. OL-1, the company's original area lighting
14 tariff, provides standard lighting offerings. OL-3,
15 which came about after OL-1, provides premium lighting
16 offerings including decorative lighting fixtures and
17 poles. SL-2 provides street lighting offerings, many of
18 which are the same as provided under OL-1. Since the
19 current schedules were first established, the separate
20 tariff agreements associated with these rate schedules
21 have been replaced with a single agreement for use under
22 all three schedules. In addition, the business of
23 providing lighting for street and area service has become
24 more intertwined such that fixtures and poles offered
25 under one rate schedule for one purpose are desired by

1 customers for another purpose. At times, fixtures and
2 poles originally provided under one rate schedule change
3 use when they are acquired by a subsequent customer. For
4 example, a private road served under OL-3 might be
5 acquired by a county and become a public road, which
6 would normally be served under SL-2, but the current
7 fixtures and poles are not listed for service under SL-2.
8 Sometimes the same fixture and pole are provided under
9 different rate schedules. This has led the company to
10 propose that all lighting service be combined under one
11 lighting rate schedule. Each type of fixture and pole
12 will have one rate regardless of use. Such a change will
13 improve efficiency and understanding for customers and
14 company personnel who market, install and maintain the
15 lights.

16
17 **Q.** Earlier in your direct testimony, you discussed splitting
18 the lighting service into two components, lighting energy
19 and lighting facilities, in the Cost of Service Study.
20 How are the rates for lighting energy designed?

21
22 **A.** The Cost of Service Study shows that lighting energy
23 requires a revenue increase to move closer to parity
24 while lighting facilities are well above parity. The
25 proposed lighting rate design reflects these results.

1 Specifically, the company is proposing an increase in the
2 lighting energy rate to move that portion of lighting
3 service closer to parity, and to ensure more appropriate
4 cost recovery from customers who take lighting energy but
5 utilize their own facilities (metered lights). In
6 addition, to better reflect the cost of service for these
7 metered customers, the company is proposing the
8 imposition of a separate customer charge for metered
9 lights to cover the cost of metering and billing.

10
11 **Q.** How are the rates for lighting facilities designed?

12
13 **A.** With respect to lighting facilities, the company is
14 proposing that, in instances where multiple rates are
15 offered for the same facilities, the lowest of these
16 rates be applied to all such facilities, with one
17 exception; the presently reduced rate for additional
18 lights on a pole. The company is proposing the
19 elimination of such reduced rates and all lights of the
20 same type, whether the first or an additional light on a
21 pole, be priced at the same rate. In addition, the
22 company is proposing to reduce the rates of certain
23 offerings because the current rate exceeds incremental
24 costs. Finally, certain lighting facility offerings and
25 the revised Tri-Partite Agreement have been eliminated or

1 restricted to reflect the lack of customer interest or
2 feasibility of offering. Various changes to the terms
3 and conditions language of the Bright Choices Outdoor
4 Lighting Agreement are being proposed to the company's
5 tariff including the General Rules and Regulations and
6 the proposed LS-1 rate schedule.

7
8 Although lighting facilities remain above parity in the
9 Cost of Service Study, the company anticipates
10 replacement of lighting facilities in the near term with
11 newer, more expensive facilities, which will move the
12 cost of that service closer to parity.

13
14 With respect to maintenance charges related to lighting
15 facilities, the company proposes to increase charges to
16 reflect maintenance costs shown in the Lighting
17 Incremental Cost Study provided as a supplement to MFR
18 Schedule E-13d. It is important to set maintenance
19 charges at the current incremental cost.

20
21 **Q.** Are there any other miscellaneous tariff changes being
22 proposed?

23
24 **A.** Yes. The tariff now includes a Facilities Rental
25 Agreement that includes a monthly rental factor and

1 annual termination factors applicable to facilities that
2 the company may agree to lease to customers. These
3 proposed factors reflect the company's proposed cost of
4 capital in this proceeding. The revisions would only
5 apply to new Facilities Rental Agreements and, since the
6 company enters into very few of these agreements, no
7 additional revenues have been projected in the test year.

8
9 As part of the rate design process, certain
10 administrative changes have been proposed for language in
11 the tariff to better reflect the design and clarify
12 operations of the rate schedules, including some new term
13 definitions.

14
15 **Q.** Where can the results of the company's total rate design
16 be found?

17
18 **A.** The revenue distribution by rate schedule is shown on MFR
19 Schedule E-13a, supported by the detailed billing
20 calculations in MFR Schedules E-13c and E-13d. The
21 effect on customers' typical bills is shown on MFR
22 Schedule A-2.

23
24 **Q.** Please provide a summary of the company's proposed rates
25 Cost of Service Studies and rate design.

1 **A.** The company identified three primary goals for the
2 proposed rate design changes in this case: 1) provide
3 cost-effective interruptible service offerings, 2)
4 implement a conservation-oriented price incentive for
5 residential service, and 3) create a single lighting
6 service rate schedule for all lighting customers of the
7 company. These goals have been achieved in the cost of
8 service and rate design work described herein.

9
10 The company proposes that a 12 CP and 25 percent AD cost
11 of service methodology be utilized for the Cost of
12 Service Study used to support the rate design because it
13 appropriately captures the production cost impact of
14 Tampa Electric's investment in generation and associated
15 variable cost of operation represents cost allocations
16 when considering how power plants are planned and
17 operated in Florida. Further, the company used the cost
18 of service results to move rate classes close to overall
19 system return parity which is an important factor
20 considered in designing the proposed rates.

21
22 It is important that the new rate schedules consider 1)
23 cost to serve the various classes, 2) rate history, 3)
24 public acceptance of rate structures, 4) customer
25 understanding and ease of application, 5) consumption and

1 load characteristics of the classes, and 6) revenue
2 stability and continuity. With these considerations in
3 mind, Tampa Electric is proposing to: 1) invert base rate
4 energy charges for standard residential service, 2) close
5 the IS rates and transfer current IS customers to service
6 under a new GSD rate schedule with interruptible credits
7 provided under the GSLM-2 and GSLM-3 interruptible rate
8 riders, 3) eliminate duplicative demand billed general
9 service rate schedules and combine all such service under
10 one rate schedule, 4) design time-of-day rates for the GS
11 rate schedules to provide a greater incentive to shift
12 energy consumption off-peak, and 5) combine the three
13 existing lighting rate schedules into one with more
14 efficient and understandable rate offerings.

15
16 The company's proposed service charge rate design
17 provides three new service charges, including two that,
18 if approved, will provide a beneficial convenience
19 service option for customers seeking to reconnect
20 electric service after normal business hours.

21
22 Overall, the proposed rate schedules present new rates
23 designed to produce \$228,196,000 in additional revenues
24 consisting of \$221,380,000 of additional billed electric
25 base sales revenues, negative \$301,000 of additional

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unbilled electric base sales revenues, and \$7,117,000 of additional service charge revenues. The proposed rates total the company's revenue requirements.

Q. Does this conclude your direct testimony?

A. Yes, it does.

TAMPA ELECTRIC COMPANY
DOCKET NO. 080317-EI
WITNESS: ASHBURN

EXHIBIT

OF

WILLIAM R. ASHBURN

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TAMPA ELECTRIC COMPANY
DOCKET NO. 080317-EI
EXHIBIT NO. ____ (WRA-1)
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MINIMUM FILING REQUIREMENT SCHEDULES
SPONSORED OR CO-SPONSORED BY WILLIAM R. ASHBURN

MFR Schedule	Title
A-2	Full Revenue Requirements Bill Comparison - Typical Monthly Bills
A-3	Summary Of Tariffs
B-1	Adjusted Rate Base
B-6	Jurisdictional Separation Factors - Rate Base
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B-17	Working Capital - 13 Month Average
C-1	Adjusted Jurisdictional Net Operating Income
C-3	Jurisdictional Net Operating Income Adjustments
C-4	Jurisdictional Separation Factors - Net Operating Income
C-5	Operating Revenues Detail
C-13	Miscellaneous General Expenses
C-14	Advertising Expenses
C-15	Industry Association Dues
C-20	Taxes Other Than Income Taxes
C-38	O&M Adjustments By Function

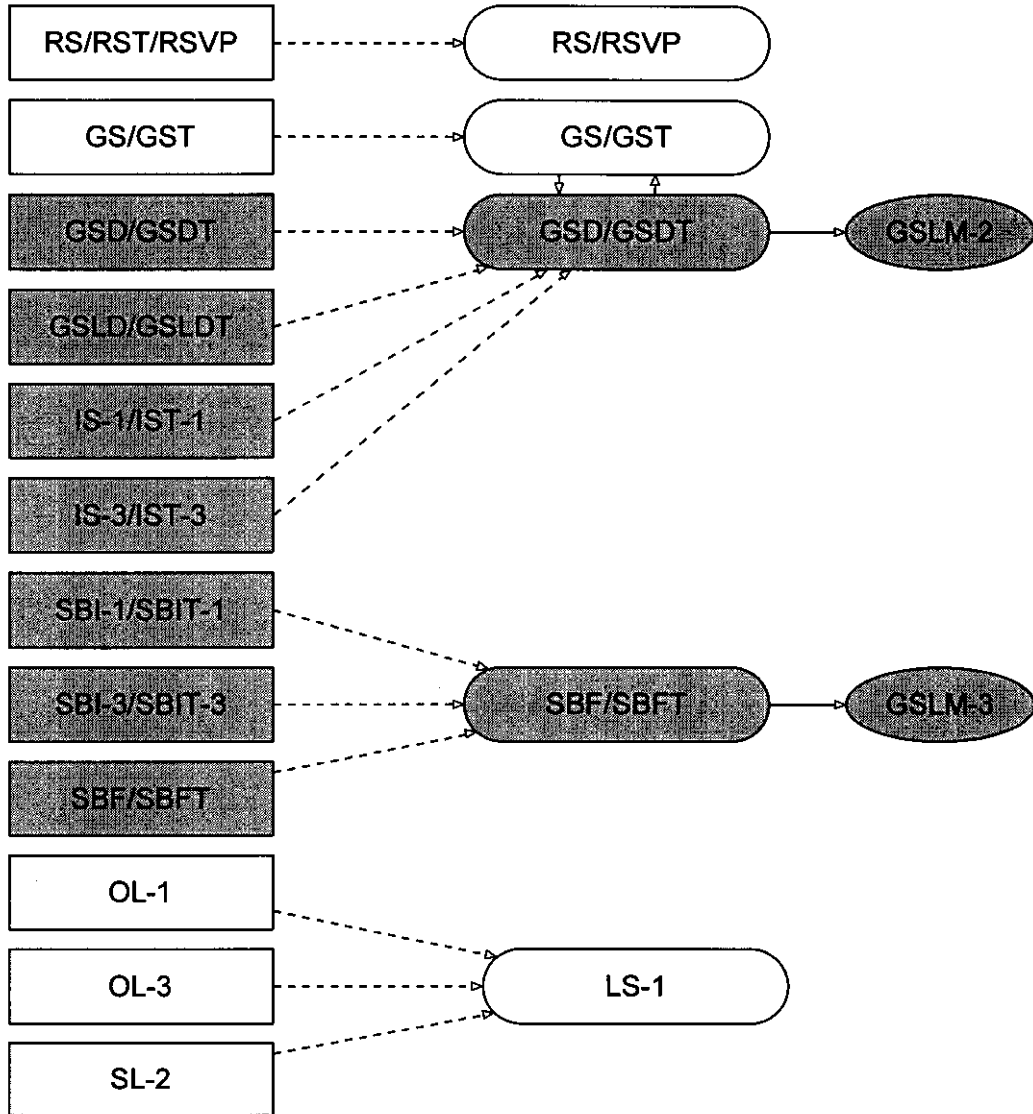
TAMPA ELECTRIC COMPANY
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MFR Schedule	Title
E-1	Cost Of Service Studies
E-2	Explanation Of Variations From Cost Of Service Study Approved In Company's Last Rate Case
E-3a	Cost Of Service Study - Allocation Of Rate Base Components To Rate Schedule
E-3b	Cost Of Service Study - Allocation Of Expense Components To Rate Schedule
E-4a	Cost Of Service Study - Functionalization And Classification Of Rate Base
E-4b	Cost Of Service Study - Functionalization And Classification Of Expenses
E-5	Source And Amount Of Revenues - At Present And Proposed Rates
E-6a	Cost Of Service Study - Unit Costs Present Rates
E-6b	Cost Of Service Study - Unit Costs Proposed Rates
E-7	Development Of Service Charges
E-8	Company - Proposed Allocation Of The Rate Increase By Rate Class
E-9	Cost Of Service - Load Data

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MFR Schedule	Title
E-10	Cost Of Service Study - Development Of Allocation Factors
E-11	Development Of Coincident And Non-Coincident Demands For Cost Study
E-12	Adjustment To Test Year Unbilled Revenue
E-13a	Revenue From Sale Of Electricity By Rate Schedule
E-13b	Revenues By Rate Schedule - Service Charges (Account 451)
E-13c	Base Revenue By Rate Schedule - Calculations
E-13d	Revenue By Rate Schedule - Lighting Schedule Calculation
E-14	Proposed Tariff Sheets And Support For Charges
E-15	Projected Billing Determinants - Derivation
F-8	Assumptions

Proposed Rate Schedule Changes



COMPARISON OF CLASS ALLOCATED COST OF SERVICE STUDY RESULTS
TEST PERIOD: 2009
(\$000)

Rate Class	Class Sales Revenue Requirement		Total Difference	
	Cost of Service 12 CP & 1/13th AD Prod. Cap. Alloc. Method	Cost of Service 12 CP & 25% AD Prod. Cap. Alloc. Method	\$	%
Residential (RS)	582,239	575,347	(6,892)	-1.2%
General Service Non-Demand (GS)	62,943	62,407	(536)	-0.9%
General Service Demand (GSD)	375,370	382,057	6,687	1.8%
Lighting Service (LS)				
Energy	6,104	6,845	741	12.1%
Facilities	32,549	32,549	-	0.0%
Subtotal:	38,653	39,394	741	1.9%
Total	1,059,205	1,059,205	-	0.0%

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Note: Cost of service information is shown for the rate classes of the proposed rate structure. The amounts reflect additional revenue credits from proposed service charges and the effect of the proposed increase on unbilled revenues.

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DEVELOPMENT OF TARGET PROPOSED REVENUE INCREASE BY CLASS
TEST PERIOD: 2009
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Rate Class	(A) Cost of Service Reflecting IS Rate Restructure 12CP & 25% AD	(B) Proposed Additional Revenue Credits	(C) Class Sales Revenue Requirement	(D) Present Class Sales Revenue	(E) Base Rev Adj. for IS Restructure	(F) Adjusted Present Class Sales Revenue	(G) Adjusted Class Sales Revenue Deficiency	(H) %	(I) Proposed Class Sales Revenue Increase	(J) %	(K) Proposed Class Sales Revenue	(L) Revenue Req. Index	(M) Unbilled Revenue Adjustment For Effect Of Proposed Rates	(N) Targeted Proposed Class Sales Revenue
	(A) + (B)			(A)	(D) + (E)	(C) - (F)	(G) / (F)	(B)	(I) / (F)	(F) + (I)	(K) / (C)		(K) - (M)	
I. Residential (RS)	580,736	(6,094)	574,642	454,812	-	454,812	119,830	26.3%	113,226	24.9%	568,038	0.99	(137)	568,175
II. General Service - Non-Demand (GS)	65,463	(835)	64,628	53,970	-	53,970	10,658	19.7%	13,436	24.9%	67,406	1.04	(17)	67,423
Total: I + II	646,199	(6,929)	639,270	508,782	-	508,782	130,488	25.6%	126,662	24.9%	635,444	0.99	(154)	635,598
III. General Service - Demand (GSD)	241,341	(184)	241,157	192,520	-	192,520	48,637	25.3%						
IV. General Service - Large Demand (GSLD)	96,875	(3)	96,872	73,686	-	73,686	23,186	31.5%						
V. Interruptible General Service (IS)	42,219	(1)	42,218	21,915	-	21,915	20,303	92.6%						
Total: III + IV + V	380,435	(188)	380,247	288,121	-	288,121	92,126	32.0%	89,425	31.0%	377,546	0.99	(144)	377,690
VI. Lighting Service (SL,OL)														
A. Energy	6,830	-	6,830	4,683	-	4,683	2,147	45.8%	2,084	44.5%	6,767	0.99	(3)	6,770
B. Facilities	32,554	-	32,554	36,265	-	36,265	(3,711)	-10.2%	2,879	7.9%	39,144	1.20	-	39,144
Total: VI.	39,384	-	39,384	40,948	-	40,948	(1,564)	-3.8%	4,963	12.1%	45,911	1.17	(3)	45,914
Grand Total	1,066,018	(7,117)	1,058,901	837,851	-	837,851	221,050	26.4%	221,050	26.4%	1,058,901	1.00	(301)	1,059,202

Notes:

Under the IS rate restructuring proposal, adjustments shown are those amounts for which base revenues would be required to change to offset the implementation of proposed GSLM customer credits recovered through the ECCR clause. The adjustments reflect GSLM-2 and GSLM-3 payments of \$ 22,698,235 to interruptible customers and recovered from all rate classes on the basis of the 12 CP and 25% AD production capacity allocation method.

Proposed class revenue increases determined by (1) assigning proposed revenue changes to Lighting Facilities to accomplish restructuring of Lighting Rate Schedules and effecting current level fixture and pole maintenance charges, and (2) allocating remainder of required revenue increase among (a) combined groups I&II, (b) combined groups III,IV,&V and (c) Lighting Energy VI.A. in proportion to each groupings adjusted sales revenue deficiency of column (G).

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SUMMARY OF RESULTANT PROPOSED CLASS PARITY RATIOS AND RATES OF RETURN
TEST PERIOD: 2009
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Rate Class	Class Cost of Service 12 CP & 25% AD w/Proposed Rev. Cr.	Proposed Class Sales Revenue	Class Parity Ratio (B) / (A)	Class Rate of Return at Proposed Rates	Class Rate of Return Index (D) / Total (D)
Residential (RS)	575,347	567,758	0.99	8.59%	0.97
87 General Service Non-Demand (GS)	62,407	64,651	1.04	9.45%	1.07
General Service Demand (GSD)	382,057	380,910	1.00	8.77%	0.99
Lighting Service (LS)					
Energy	6,845	6,768	0.99	8.60%	0.98
Facilities	32,549	39,143	1.20	12.83%	1.45
Subtotal	39,394	45,911	1.17	12.09%	1.37
Grand Total	1,059,205	1,059,230	1.00	8.82%	1.00

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