

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the application of)
UPPER PENINSULA POWER COMPANY)
for authority to increase retail electric rates.)
_____)

Case No. U-16417

DIRECT TESTIMONY AND EXHIBITS OF
JOYLYN C. HOFFMAN MALUEG, CMA
FOR
UPPER PENINSULA POWER COMPANY

STATE OF MICHIGAN

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**QUALIFICATIONS
OF
JOYLYN C. HOFFMAN MALUEG, CMA
PART I**

1 **Q. Please state your name, position and business address.**

2 A. My name is Joylyn C. Hoffman Malueg. My business address is Integrys Business
3 Support, LLC (“IBS”), 700 North Adams Street, P.O. Box 19001, Green Bay, WI
4 54307-9001. I am a Rate Case Consultant in the Regulatory Affairs Department of
5 Integrys Energy Group, Inc. (“Integrys”). Both IBS and Upper Peninsula Power
6 Company (“UPPCO”) are wholly-owned subsidiaries of Integrys.

7

8 **Q. For whom are you providing testimony?**

9 A. I am providing testimony on behalf of UPPCO.

10

11 **Q. Please describe briefly your educational, professional, and utility background.**

12 A. I am a 1999 graduate of the University of Wisconsin – Green Bay where I received a
13 Bachelor of Science Degree in Mathematics with a Statistical emphasis. I received
14 my Master of Business Administration degree from Cardinal Stritch University,
15 Milwaukee, Wisconsin, in February 2006. I am also a Certified Management
16 Accountant (“CMA”), having received such certification in 2009 from The Institute of
17 Certified Management Accountants.

18

1 In March of 2001, I was hired by Wisconsin Public Service Corporation (“WPS Corp”)
2 as a Revenue Requirements Forecaster in the Rates and Economic Evaluation
3 Department. While working as a Revenue Requirements Forecaster, I was primarily
4 responsible for revenue requirements and cost of service analyses pertaining to
5 WPS Corp’s wholesale jurisdiction. In October of 2003, my job title changed to Rate
6 Analyst within the Regulatory Affairs department. My primary job responsibilities
7 during that time related to revenue requirements analyses for WPS Corp’s Michigan
8 retail jurisdiction, as well as performing revenue requirement analyses and cost of
9 service studies for UPPCO. In December of 2006, my role within the Regulatory
10 Affairs department evolved and my job title became Rate Case Consultant.
11 Currently, my primary job duties consist of performing cost of service study analyses
12 for all regulated Integrys subsidiaries. I am also responsible for conducting the
13 revenue requirement analyses for WPS Corp’s Michigan retail electric and gas
14 jurisdictions.

15
16 **Q. Have you previously testified before any regulatory agency?**

17 A. Yes, I have. I have filed testimony before the Michigan Public Service Commission
18 (“the Commission”) on behalf of UPPCO, WPS Corp and Michigan Gas Utilities
19 Corporation (“MGUC”) in Case Nos. U-14410, U-14745, U-15352, U-15549, U-
20 15988, U-15990, and U-16166. I have filed testimony before the Public Service
21 Commission of Wisconsin (“PSCW”) in Docket Nos. 6690-UR-119 and 6690-UR-120,
22 before the Minnesota Public Utilities Commission (“MPUC”) in Docket Nos.
23 G007,011/GR-08-835 and G007,011/GR-10-977, and before the Illinois Commerce
24 Commission (“ICC”) in Docket Nos. 09-0166, 09-0167, 11-0820 and 11-0281. In
25 addition, I have participated in the preparation of various accounting and filing
26 exhibits for WPS Corp, UPPCO, MGUC, Minnesota Energy Resources Corporation,
27 Peoples Gas Light and Coke, and North Shore Gas Company for presentation to the

1 PSCW, MPSC, MPUC, ICC and Federal Energy Regulatory Commission (“FERC”).

**JOYLYN C. HOFFMAN MALUEG
DIRECT TESTIMONY
PART II**

1 **Q. What is the purpose of your pre-filed direct testimony?**

2 A. The purpose of my pre-filed direct testimony is to discuss and sponsor the class cost
3 of service studies (“COSS”) I completed for UPPCO for the 2012 projected test year
4 and 2010 historic test year.

5
6 Mr. James M. Beyer’s pre-filed direct testimony relies on the results of the COSS for
7 the 2012 projected test year to develop UPPCO’s proposed changes to its rate
8 design.

9
10 **Q. Are you sponsoring any exhibits in this proceeding?**

11 A. Yes, I am. I am sponsoring:

- 12 1. Ex. A-6 (JCHM-1), Schedule F1.1 through F1.37, and
13 2. Ex. A-16 (JCHM-2), Schedule F1.1 through F1.12.

14
15 These exhibits are the COSS prepared by UPPCO for the Integrated Retail, Iron
16 River, and Combined Retail electric jurisdictions, along with associated allocation
17 methodologies, supplemental analyses, and data. These cost of service studies
18 include:

- 19 1) A COSS of the Integrated Retail service territory for the 2012 projected
20 test year, portraying Income Tax allocated to the rate schedules based
21 upon the Net Income allocation methodology.
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23 2) A COSS of the Integrated Retail service territory for the 2012 projected
24 test year, portraying Income Tax allocated to the rate schedules based
25 upon the Rate Base allocation methodology.
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27 3) A COSS of the Iron River service territory for the 2012 projected test year,
28 portraying Income Tax allocated to the rate schedules based upon the
29 Net Income allocation methodology.
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31 4) A COSS of the Iron River service territory for the 2012 projected test year,

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portraying Income Tax allocated to the rate schedules based upon the Rate Base allocation methodology.

- 5) A COSS of the Combined Retail service territory for the 2012 projected test year, portraying Income Tax allocated to the rate schedules based upon the Net Income allocation methodology.
- 6) A COSS of the Combined Retail service territory for the 2012 projected test year, portraying Income Tax allocated to the rate schedules based upon the Rate Base allocation methodology.
- 7) A COSS summary of the Combined Retail service territory for the 2012 projected test year, portraying Income Tax allocated to the rate schedules based upon the Net Income allocation methodology and portraying a zero revenue deficiency. This is being provided at the request of MPSC Staff.
- 8) A COSS summary of the Combined Retail service territory for the 2012 projected test year, portraying Income Tax allocated to the rate schedules based upon the Rate Base allocation methodology and portraying a zero revenue deficiency. This is being provided at the request of MPSC Staff.
- 9) A COSS of the Integrated Retail service territory for the 2010 historical test year, portraying Income Tax allocated to the rate schedules based upon the Net Income allocation methodology.
- 10) A COSS of the Iron River service territory for the 2010 historical test year, portraying Income Tax allocated to the rate schedules based upon the Net Income allocation methodology.

The following testimony explains these studies.

Q. Were these exhibits prepared by you or under your direction and supervision?

A. Yes, they were.

Q. Does your testimony address any filing requirements?

A. Yes, it does. Order Point "K" of the Commission's December 21, 2010 Order Approving Settlement Agreement in Case No. U-16166 requires UPPCO to submit a COSS that allocates income taxes on the basis of the Net Income attributable to each customer class in future general rate case proceedings. Included in my exhibits are COSS for Integrated Retail, Iron River, and Combined Retail service territories that allocate income taxes on the basis of Net Income. As discussed

1 further in my testimony, I have also provided COSS that allocate income taxes on the
2 basis of Rate Base, and propose that the MPSC adopt this Rate Base allocation
3 methodology, as it better allocates costs to customers based on cost causation, and
4 provides stability within the allocation.

5

6 **Q. Does your testimony address any other filing requirements?**

7 A. Yes, it does. Order Point "N" of the Commission's December 21, 2010 Order
8 Approving Settlement Agreement in Case No. U-16166 requires UPPCO to include
9 in its next rate case proceeding a proposal to consolidate the Integrated System
10 retail jurisdiction and the Iron River System retail jurisdiction into a single retail
11 jurisdiction (i.e. "Combined Retail"). Included in my exhibits are COSS for a
12 Combined Retail service territory.

13

14 **Q. Please describe Exhibit A-6 (JCHM-1), Schedules F1.1 through F1.36.**

15 A. Schedule F1.1 contains the Integrated Retail System 2012 COSS - General
16 Summary as required by the Commission's Orders dated December 23, 2008 and
17 February 20, 2009 issued in Case No. U-15895. This COSS allocates Income Taxes
18 to the rate schedules based upon each rate schedules' Net Income, as required by
19 Order Point "K" of the Commission's December 21, 2010 Order Approving
20 Settlement Agreement in Case No. U-16166.

21

22 Schedule F1.2 contains the Integrated Retail System 2012 COSS - Detailed
23 Summary corresponding to the COSS that portrays Income Taxes being allocated to
24 the rate schedules based upon each rate schedules' respective Net Income.

25

26 Schedule F1.3 contains the Integrated Retail System 2012 COSS - Individual Rate
27 Schedule Revenue Requirements and Rate Base Components corresponding to the

1 COSS that portrays Income Taxes being allocated to the rate schedules based upon
2 each rate schedules' respective Net Income.

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4 Schedule F1.4 contains the Integrated Retail System 2012 COSS - Allocation
5 Factors.

6

7 Schedule F1.5 contains the Integrated Retail System Account 369: Cost per Service
8 Line per Customer Analysis, based upon 2010 historic test year data.

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10 Schedule F1.6 contains the Integrated Retail System Account 370: Cost per Meter
11 per Customer Analysis, based upon 2010 historic test year data.

12

13 Schedule F1.7 contains the Integrated Retail System 2012 COSS - Classification
14 and Functionalization of Integrated Retail System Costs and Investment.

15

16 Schedule F1.8 contains the Integrated Retail System 2012 COSS – Translation of
17 Distribution O&M FERC Accounts to Plant Accounts.

18

19 Schedule F1.9 contains the split of Corporate UPPCO Accounts 364, 365 and 367
20 amongst categories of Primary, Secondary, General Lighting, Street Lighting and
21 Private Lighting, based upon 2010 historic test year data.

22

23 Schedule F1.10 contains the Corporate UPPCO Minimum System Requirements
24 Analysis, based upon 2010 historic test year data.

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26 Schedule F1.11 contains the Corporate UPPCO FERC Account 368 - Transformer
27 Regression Analysis, based upon 2010 historic test year data.

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Schedule F1.12 contains a second Integrated Retail System 2012 COSS - General Summary depicting Income Taxes being allocated to the rate schedules based upon the Rate Base allocation methodology.

Schedule F1.13 contains a second Integrated Retail System 2012 COSS - Detailed Summary; corresponding to the COSS that portrays Income Taxes being allocated to the rate schedules based upon the Rate Base allocation methodology.

Schedule F1.14 contains the second Integrated Retail System 2012 COSS - Individual Rate Schedule Revenue Requirements and Rate Base Components corresponding to the COSS that portrays Income Taxes being allocated to the rate schedules based upon the Rate Base allocation methodology.

Schedule F1.15 contains the Iron River Retail System 2012 COSS - General Summary as required by the Commission's Orders dated December 23, 2008 and February 20, 2009 issued in Case No. U-15895. This COSS allocates Income Taxes to the rate schedules based upon each rate schedules Net Income, as required by Order Point "K" of the Commission's December 21, 2010 Order Approving Settlement Agreement in Case No. U-16166.

Schedule F1.16 contains the Iron River Retail System 2012 COSS - Detailed Summary corresponding to the COSS that portrays Income Taxes being allocated to the rate schedules based upon each rate schedule's respective Net Income.

Schedule F1.17 contains the Iron River Retail System 2012 COSS - Individual Rate Schedule Revenue Requirement and Rate Base Components corresponding to the

1 COSS that portrays Income Taxes being allocated to the rate schedules based upon
2 each rate schedule's respective Net Income.

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4 Schedule F1.18 contains the Iron River Retail System 2012 COSS - Allocation
5 Factors.

6

7 Schedule F1.19 contains the Iron River Retail System Account 369: Cost per Service
8 Line per Customer Analysis, based upon 2010 historic test year data.

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10 Schedule F1.20 contains the Iron River Retail System Account 370: Cost per Meter
11 per Customer Analysis, based upon 2010 historic test year data.

12

13 Schedule F1.21 contains the Iron River Retail System 2012 COSS - Classification
14 and Functionalization of Iron River Retail System Costs and Investment.

15

16 Schedule F1.22 contains the Iron River System 2012 COSS – Translation of
17 Distribution O&M FERC Accounts to Plant Accounts.

18

19 Schedule F1.23 contains a second Iron River System 2012 COSS - General
20 Summary depicting Income Taxes being allocated to the rate schedules based upon
21 the Rate Base allocation methodology.

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23 Schedule F1.24 contains a second Iron River System 2012 COSS - Detailed
24 Summary corresponding to the COSS that portrays Income Taxes being allocated to
25 the rate schedules based upon the Rate Base allocation methodology.

26

27 Schedule F1.25 contains the second Iron River System 2012 COSS - Individual Rate

1 Schedule Revenue Requirements and Rate Base Components corresponding to the
2 COSS that portrays Income Taxes being allocated to the rate schedules based upon
3 the Rate Base allocation methodology.

4
5 Schedule F1.26 contains the Combined Retail System 2012 COSS - General
6 Summary as required by the Commission's Orders dated December 23, 2008 and
7 February 20, 2009 issued in Case No. U-15895. This COSS allocates Income Taxes
8 to the rate schedules based upon each rate schedules Net Income, as required by
9 Order Point "K" of the Commission's December 21, 2010 Order Approving
10 Settlement Agreement in Case No. U-16166.

11
12 Schedule F1.27 contains the Combined Retail System 2012 COSS - Detailed
13 Summary corresponding to the COSS that portrays Income Taxes being allocated to
14 the rate schedules based upon each rate schedule's respective Net Income.

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16 Schedule F1.28 contains the Combined Retail System 2012 COSS - Individual Rate
17 Schedule Revenue Requirement and Rate Base Components corresponding to the
18 COSS that portrays Income Taxes being allocated to the rate schedules based upon
19 each rate schedule's respective Net Income.

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21 Schedule F1.29 contains the Combined Retail System 2012 COSS - Allocation
22 Factors.

23
24 Schedule F1.30 contains the Combined Retail System Account 369: Cost per
25 Service Line per Customer Analysis, based upon 2010 historic test year data.

26
27 Schedule F1.31 contains the Combined Retail System Account 370: Cost per Meter

1 per Customer Analysis, based upon 2010 historic test year data.

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3 Schedule F1.32 contains the Combined Retail System 2012 COSS - Classification
4 and Functionalization of Combined Retail System Costs and Investment.

5

6 Schedule F1.33 contains the Combined Retail System 2012 COSS – Translation of
7 Distribution O&M FERC Accounts to Plant Accounts.

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9 Schedule F1.34 contains a second Combined Retail System 2012 COSS - General
10 Summary depicting Income Taxes being allocated to the rate schedules based upon
11 the Rate Base allocation methodology.

12

13 Schedule F1.35 contains a second Combined Retail System 2012 COSS - Detailed
14 Summary corresponding to the COSS that portrays Income Taxes being allocated to
15 the rate schedules based upon the Rate Base allocation methodology.

16

17 Schedule F1.36 contains the second Combined Retail System 2012 COSS -
18 Individual Rate Schedule Revenue Requirements and Rate Base Components
19 corresponding to the COSS that portrays Income Taxes being allocated to the rate
20 schedules based upon the Rate Base allocation methodology.

21

22 Schedule F1.37 contains two Detailed Summaries corresponding to a third and
23 fourth COSS for the Combined Retail System for the 2012 projected test year. The
24 two Detailed Summaries reflect the Combined Retail System 2012 COSS that
25 portrays Income Taxes being allocated to the rate schedules based upon the Net
26 Income and Rate Base allocation methodologies, respectively, and also portrays a
27 zero revenue deficiency. This is being provided at the request of MPSC Staff.

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Q. Please describe Exhibit A-16 (JCHM-2), Schedules F1.1 through F1.12.

A. Schedule F1.1 contains the Integrated Retail System 2010 COSS - General Summary as required by the Commission's Orders dated December 23, 2008 and February 20, 2009 issued in Case No. U-15895. This COSS allocates Income Taxes to the rate schedules based upon each rate schedules Net Income, as required by Order Point "K" of the Commission's December 21, 2010 Order Approving Settlement Agreement in Case No. U-16166.

Schedule F1.2 contains the Integrated Retail System 2010 COSS - Detailed Summary.

Schedule F1.3 contains the Integrated Retail System 2010 COSS - Individual Rate Schedule Revenue Requirement and Rate Base Components.

Schedule F1.4 contains the Integrated Retail System 2010 COSS - Allocation Factors.

Schedule F1.5 contains the Integrated Retail System 2010 COSS - Classification & Functionalization of Integrated Retail System Costs and Investment.

Schedule F1.6 contains the Integrated Retail System 2010 COSS – Translation of Distribution O&M FERC Accounts to Plant Accounts.

Schedule F1.7 contains the Iron River Retail System 2010 COSS - General Summary as required by the Commission's Orders dated December 23, 2008 and February 20, 2009 issued in Case No. U-15895. This COSS allocates Income Taxes

1 to the rate schedules based upon each rate schedules Net Income, as required by
2 Order Point “K” of the Commission’s December 21, 2010 Order Approving
3 Settlement Agreement in Case No. U-16166.

4
5 Schedule F1.8 contains the Iron River Retail System 2010 COSS - Detailed
6 Summary.

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8 Schedule F1.9 contains the Iron River Retail System 2010 COSS - Individual Rate
9 Schedule Revenue Requirement and Rate Base Components.

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11 Schedule F1.10 contains the Iron River Retail System 2010 COSS - Allocation
12 Factors.

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14 Schedule F1.11 contains the Iron River Retail System 2010 COSS - Classification &
15 Functionalization of Iron River Retail System Costs and Investment.

16
17 Schedule F1.12 contains the Iron River Retail System 2010 COSS – Translation of
18 Distribution O&M FERC Accounts to Plant Accounts.

19
20 **General Information**

21 **Q. What is the purpose of a COSS?**

22 A. The purpose of a COSS is to identify the revenues, costs and profitability for each
23 class of service, as contemplated by MCL 460.11(6). The results of the COSS
24 provide the data necessary to design cost-based rates using an embedded cost
25 methodology.

26
27 **Q. How should a COSS be performed?**

1 A. Cost causation is the fundamental principle applicable to all cost studies for purposes
2 of allocating costs to customer classes. The most important theoretical principle
3 underlying a COSS is that cost incurrence should follow historical embedded cost
4 causation. The costs that customers become responsible to pay should be those
5 costs that the particular customers caused the utility to incur because of the
6 characteristics of the customers' usage of utility service. By performing a COSS in
7 this manner, the COSS can be used to determine how costs should be recovered
8 from customer classes through rate design.

9

10 **Q. Would you please explain the procedures used to develop the COSS reflected**
11 **in the various Schedules of Exhibits A-6 (JCHM-1) and A-16 (JCHM-2)?**

12 A. In general, preparing a COSS involves three major steps:

- 13 1. Cost functionalization,
- 14 2. Cost classification; and
- 15 3. Cost allocation

16 of the utility's system costs to the customer classes.

17

18 The first step, cost functionalization, identifies and separates plant and expenses into
19 specific categories based on their purpose and various characteristics of utility
20 operation. Typically, these plant and expenses are functionalized by the FERC
21 Uniform System of Accounts ("USOA"). These accounts group plant and expenses
22 into their various functions, which for UPPCO includes Production, Demand,
23 Transmission, Distribution, and Customer.

24

25 Step two, cost classification, further separates the functionalized plant and expenses
26 into the categories based upon how they are incurred. These classifications consist
27 of:

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1. Energy related;
2. Demand, or capacity related, which can be further broken down into the subcategories of:
 - a. Production demand,
 - b. Transmission demand,
 - c. Coincident Peak (“CP”) demand,
 - d. Customer Maximum, or Non-Coincident Peak (“NCP”), demand; and,
3. Customer related.

Energy related costs are those costs that vary with energy sales to customers. For example, included in the COSS are fuel costs related to energy production. However, after considering fuel costs, very little of UPPCO’s remaining service cost structure is energy related.

Demand related costs are incurred to service the peak demand of the system. Examples of costs separated into the demand classification include production units, structures and improvements, substations, and certain localized distribution facilities designed to meet customer demands.

Customer related costs are incurred to extend service to and attach a customer to the distribution system, meter any energy usage, and maintain the customer’s account. Customer related costs are found to vary with the number of customers, regardless of the customers’ energy consumption. Examples of costs separated into the customer classification include distribution services, meters, customer billing and accounting, and customer information expenses.

1 The final step of preparing a COSS is allocation of each functionalized and classified
2 cost element separated in the customer classes. Costs that are classified to the
3 energy cost element are typically allocated to the rate classes using an allocation
4 factor based upon the rate classes' energy usage. Costs that are classified to the
5 demand cost element are typically allocated to the rate classes using an allocation
6 factor based upon the rate classes' demand imposed upon the system during
7 specific peak hours. Costs that are classified to the customer cost element are
8 typically allocated to the rate classes using an allocation factor based upon customer
9 counts and, in some instances, customer counts that are weighted to reflect, for
10 example, differences in metering costs amongst rate classes.

11

12 **Q. Please explain the considerations relied upon in determining the cost**
13 **allocation methodologies that are used to perform a COSS.**

14 A. As stated above, in order to allocate costs within any COSS, the factors that cause
15 the costs to be incurred must be identified and understood. Additionally, the cost
16 analyst needs to develop data in a form that is compatible with, and supportive of,
17 rate design proposals. The availability of data for use in developing alternative cost
18 allocation factors is also a consideration. In evaluating any cost allocation
19 methodology, appropriate consideration should be given to whether it provides a
20 sound rationale or theoretical basis, whether the results reflect cost causation and
21 are representative of the costs of serving different types of customers, as well as the
22 stability of the results over time. In the COSS for the Integrated Retail System, Iron
23 River System, and Combined Retail System the allocation methodologies used can
24 be found in the column labeled "Allocation Factor".

25

26 **Q. What is the source of the cost data analyzed in UPPCO's COSS?**

27 A. All cost of service data have been extracted from UPPCO's revenue requirements

1 and rate base contained in the instant filing as shown in Mr. DeMerritt's Exs. A-1
2 (SSD-1), A-2 (SSD-2), A-3, (SSD-3) and Exs. A-11 (SSD-7), A-12 (SSD-8), A-13
3 (SSD-9), along with any associated workpapers, for the 2012 projected test year and
4 2010 historic test year, respectively. Where more detailed information was required
5 to perform various supplementary analyses related to certain plant and expense
6 elements, the data were either taken directly from UPPCO's various software
7 systems or derived from the historical books and records of UPPCO.

8
9 **Q. Does the COSS allocate costs to the rate schedules as defined in present**
10 **rates?**

11 A. The COSS submitted for both the 2010 historic test year and the 2012 proposed test
12 year in this proceeding are based upon rates that are in effect for each respective
13 year, or present rates as they were referred to above. All values in the COSS are
14 allocated to each customer class utilizing the allocation method described in the
15 column titled "Allocation Factor". Direct assignment of values to the appropriate
16 customer classes was conducted whenever possible.

17
18 **Q. Are the allocation methodologies utilized in the COSS the same methodologies**
19 **Mr. DeMerritt utilized to allocate Corporate UPPCO values to each of the**
20 **Integrated Retail, Iron River, and Wholesale jurisdictions?**

21 A. Yes, except as noted, the allocation methodologies utilized in the COSS are the
22 exact same methodologies in which Corporate UPPCO values are allocated to each
23 of the jurisdictions, which are found in Exs. A-1 (SSD-1), A-2 (SSD-2), and A-3
24 (SSD-3) for the 2012 projected test year, and A-11 (SSD-7), A-12 (SSD-8), and A-13
25 (SSD-9) for the 2010 historic test year. There are a few exceptions where the
26 allocation methodology used to allocate values across rate schedules in the COSS
27 did not follow the jurisdictional cost allocation that was used in the above stated

1 exhibits to allocate Corporate UPPCO values to the Integrated Retail or Iron River
2 jurisdictions. These exceptions are:

- 3 1. When allocating Income Tax expense,
- 4
- 5 2. When allocating distribution costs,
- 6
- 7 3. When allocating O&M costs associated with customer services and sales,
- 8 uncollectible expense, as well as administrative and general costs,
- 9
- 10 4. When allocating Taxes other than Income Taxes relating to Unauthorized
- 11 Insurance Tax and Real Estate & Property Tax, and
- 12
- 13 5. The calculation of demand related allocation methodologies.
- 14

15 In these instances, different allocation methodologies were utilized in the COSS to
16 better assign values at the rate schedule level.

17

18 **Q. Please describe how you defined the customer classes in UPPCO's 2012**
19 **projected test year COSS.**

20 A. The customer classes that were utilized in the 2012 projected test year COSS follow
21 the rate classes under which UPPCO currently provides retail service in Michigan.

22

23 The classes (referred to in my direct testimony as "rate classes" or "rate schedules")
24 shown in the UPPCO COSS consist of the following for the Integrated System:

- 25 1. A-1: Residential Service,
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- 27 2. AH-1: Residential Heating Service,
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- 29 3. C-1: General Service,
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- 31 4. H-1: Commercial Heating Service,
- 32
- 33 5. P-1: Light and Power Service,
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- 35 6. CP-U: Large Commercial and Industrial Service,
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- 37 7. RTMP: Real-Time Market Pricing,
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- 39 8. Schedule A: Any paper mill with at least 15,000 kW of coal-fired steam
- 40 generation,
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- 9. WP-3: Light and Power Service, (served at transmission or sub-transmission voltages) with a billing demand greater than 5,000 kW and a minimum of 500 kW of on-site generation,
- 10. SL: Street Lighting, and
- 11. Z-3: Dusk to Dawn Outdoor Security Lighting.

The classes shown in the UPPCO 2012 projected test year COSS consist of the following for the Iron River System:

- 1. A-2: Residential Service,
- 2. AH-2: Residential Heating Service,
- 3. C-2: General Service,
- 4. H-2: Commercial Heating Service,
- 5. P-2: Light and Power Service,
- 6. CP-U: Large Commercial and Industrial Service,
- 7. SL: Street Lighting, and
- 8. Z-4: Dusk to Dawn Outdoor Security Lighting.

UPPCO is also providing a COSS showing the results of combining the Integrated Retail and Iron River Retail Systems into one service territory. The combined rate classes shown in the UPPCO Combined Retail COSS consist of the following:

- 1. A-3: Residential Service,
- 2. AH-3: Residential Heating Service,
- 3. C-3: General Service,
- 4. H-3: Commercial Heating Service,
- 5. P-3: Light and Power Service,
- 6. CP-U: Large Lighting and Power Service,
- 7. RTMP: Real-time Market Pricing,
- 8. WP-3: Light and Power Service, (served at transmission or sub-transmission voltages) with a billing demand greater than 5,000 kW and a minimum of 500 kW of on-site generation,

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- 9. Schedule A: Any paper mill with at least 15,000 kW of coal-fired steam generation,
- 10. SL: Street Lighting, and
- 11. Z-5: Dusk to Dawn Outdoor Security Lighting.

Q. Are the customer classes defined in the same manner in UPPCO’s 2010 historical test year COSS as they are in UPPCO’s 2012 projected test year COSS?

A. Yes, they are.

Q. Please describe UPPCO’s approach in the development of its COSS.

A. As stated earlier, when describing the general procedures for preparing a COSS, UPPCO’s COSS attempts to associate costs with customers based on cost causation. In some cases there can be a direct association of costs to customers based on causation. For example, some plant costs such as investment in meters and services can be directly associated with the number of customers. In other cases, causation can be based on a direct relationship between costs and some parameter that can be related to customers. An example of this is fuel cost, which has a direct relationship to customers’ energy usage. Therefore, fuel costs are allocated to customers based on energy usage. Other costs may have relationships to customer parameters that are not direct, but are significantly influenced by those parameters. Distribution system costs fall into this category.

Q. How does UPPCO allocate distribution costs to customers?

A. In the case of distribution costs, UPPCO has identified two significant cost causation relationships. Some distribution costs are incurred in order for customers to simply be connected to the distribution system. Other distribution costs are incurred due to the level of demand of customers.

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Q. Were there any special analyses conducted for purposes of allocating distribution costs and plant investment?

A. Yes, there was. Regarding UPPCO's major plant accounts, customer weighting factors were developed to allocate the following distribution plant accounts:

1. Account 368: Transformers,
2. Account 369: Services, and
3. Account 370: Meters and Devices.

In addition to the customer weighting factor, Account 368: Transformers also takes into account a demand weighting factor. These weighting factors reflect any differences in the current unit costs that particular customer groups cause UPPCO to incur. For example, a small diameter single-phase service line serving a single residential customer costs less, on a per unit basis, than a large diameter three-phase service line serving a large industrial customer. Additionally, the cost of the transformers serving one large industrial three-phase customer with high demand would cost more than a single transformer serving a few residential homes. The use of weighting factors takes these unit cost differences into account when assigning costs to the various customer classes.

UPPCO has also performed a minimum distribution system study that identifies the smallest poles and wires that would be used to connect customers to the distribution system regardless of their energy usage or demand. The costs needed to support the minimum distribution system have a relationship to the number of customers, and are allocated on that basis. The costs in excess of the minimum system are related to the demand of customers, and are allocated based on the customers' demands.

Q. Please continue with how UPPCO allocates distribution costs to customers.

1 A. Distribution costs are allocated within the COSS based on the following methods:

2 1. Accounts 303 Intangible, 360 Land and Land Rights, 361 Structures and
3 Improvements, and 362 Substations were allocated based on the
4 Demand – Distribution allocator, which is based upon the sum of the 12
5 monthly coincident peak demands (“12-CP”) of total system load.
6 Additionally, these accounts are allocated at the Substation voltage level.
7

8 2. Account 364 Poles was allocated based on the results of an analysis
9 which separated poles into usage categories of Primary, Secondary,
10 Street Lighting, General Lighting, and Private Lighting. This separation
11 analysis can be found in Ex. A-6 (JCHM-1), Schedule F1.9. The usage
12 category of General Lighting is allocated to the SL and Z-3/Z-4 rate
13 schedules based on lamp counts. The usage category of Street Lighting
14 is directly assigned to the SL rate schedule and the usage category of
15 Private Lighting is directly allocated to the Z-3/Z-4 rate schedule. The
16 usage categories of Primary and Secondary pole costs were categorized
17 into customer related costs and demand related costs based upon a
18 minimum system analysis. The minimum system analysis can be found
19 in Ex. A-6 (JCHM-1), Schedule F1.10.
20

21 Once the Primary and Secondary usage categories were classified
22 between customer and demand costs, the demand costs were allocated
23 to the rate schedules via the appropriate CP Demand-Primary or CP
24 Demand-Secondary allocator. The CP Demand-Primary and CP
25 Demand-Secondary allocators are based upon the one-coincident peak
26 demand (“1-CP”) of firm system load at the respective voltage level. The
27 CP Demand-Secondary allocator also takes into consideration a
28 weighting factor of zero for the lighting customers so as not to double-
29 count costs that are already getting directly assigned to the Lighting rate
30 schedules via the methods described above.
31

32 Once the Primary and Secondary usage categories were classified
33 between customer and demand costs, the customer costs were allocated
34 to the rate schedules via the appropriate Customer-Primary or Customer-
35 Secondary allocation factor. The Customer-Primary and Customer-
36 Secondary allocation factors are based upon a customer allocator at the
37 respective voltage level. Both allocation factors take into consideration a
38 weighting factor for street lighting.
39

40 3. Account 365 Overhead Wire was classified and allocated using the same
41 methodology as Account 364. Additionally, the Customer-Primary or
42 Customer-Secondary allocation factor takes into consideration a
43 weighting factor for those customers who take 3-phase service as well as
44 applying the street lighting weighting factor.
45

46 4. Account 366 Underground Conduit was allocated using the CP Demand –
47 Primary allocator.
48

49 5. Account 367 Underground Wire was classified and allocated using the
50 same methodology as Account 364 and Account 365.
51

52 6. Account 368 Transformers was allocated based on regression analyses
53 by rate schedule, which used historic consumption frequency distributions

1 versus sample rate schedule observations of investment per customer.
2 This analysis, which is further detailed in Ex. A-6 (JCHM-1), Schedule
3 F1.11 for the UPPCO Retail System, is a study based on 2010 historic
4 test year customer non-coincident peak demands (“NCP”) and cost
5 distributions. UPPCO has quantified the cost impacts of transformer
6 costs by performing regression analyses of costs relative to the number of
7 customers and their respective demand at the transformer. These cost
8 impacts are accounted for by classifying transformer distribution costs in
9 Plant Account 368 to both the demand and customer classifications.
10 Based on the regression analyses for the UPPCO Retail system by rate
11 schedule, 46.8% of account 368 costs were classified to customer, and
12 53.2% were classified to demand.

13
14 Once Account 368 was classified between customer and demand costs,
15 the demand costs were allocated to the rate schedules via the Customer
16 Max Acct 368 allocator, which was based upon non-coincident peak
17 demands (“1-NCP”), weighed for the annual cost per kW at the primary
18 voltage level.

19
20 Once Account 368 was classified between customer and demand costs,
21 the customer costs were allocated to the rate schedules based upon the
22 Customer Acct 368 allocator, which is based upon the average customer
23 counts weighted for the cost per customer at the primary voltage level.

24
25 7. Account 369 Services was allocated using the Acct 369 – Services
26 allocator, which is based upon the average customer count at Secondary
27 voltage and applying a weighting factor for the cost per customer for
28 Services. The cost per customer for Services was based on actual plant
29 investment by rate schedule as of December 31, 2010, adjusted to
30 current cost using Handy-Whitman data.

31
32 8. Account 370 Meters and Devices was allocated using the Meters
33 allocator, which was based upon the average customer count and
34 applying a weighting factor for the cost per customer for Meters and
35 Devices. The cost per customer for Meters and Devices was based on
36 actual plant investment as of December 31, 2010, which quantified the
37 metering and device costs for rate schedules grouped by customer
38 usage.

39
40 9. Account 371 Private Lighting was direct assigned to the Z-3/Z-4 rate
41 schedule.

42
43 10. Account 373 Street Lighting was direct assigned to the SL rate schedule.
44

45 **Q. How does the COSS allocate distribution related Operation and Maintenance**
46 **(“O&M”) expenses?**

47 A. In general, these expenses should be allocated in the same manner as how the
48 distribution plant investment costs are allocated. An electric utility’s distribution
49 related O&M expenses generally are thought to support the utility’s corresponding

1 plant-in-service accounts. In order to allocate distribution O&M costs in a similar
 2 manner as the distribution plant investment, a translation was performed to convert
 3 the FERC O&M Distribution Accounts 580 through 598 to FERC Plant Distribution
 4 Accounts 303, and 374 through 386. The computations involved in this translation
 5 can be found in Ex. A-6 (JCHM-1), Schedule F1.8 for the Integrated Retail System
 6 and Ex. A-6 (JCHM-1), Schedule F1.22 for the Iron River Retail System, and
 7 Schedule F1.33 for the Combined Retail System for the 2012 projected test year. A
 8 summary of the translation can be found in the table below:

| O&M Distribution Account | Translated to: | Distribution Plant Account |
|---|----------------|---|
| Account 580: Supervisory & Engineering Account 581: Telephone Line Account 588: Miscellaneous Distribution Account 589: Rents Account 590: Supervisory & Engineering Account 598: Miscellaneous Distribution | | Accounts 303, and 360-373 on the basis of Distribution Plant Investment in Accounts 303, and 360-373 for the projected test year period |
| Account 582: Station Expenses Account 592: Station Equipment | | Account 362: Station Equipment |
| Account 583: Overhead Line Expense Account 593: Overhead Line Expense | | Accounts 364, 365, and 369.1, on the basis of Distribution Plant Investment in Accounts 364, 365, and 369.1 which are Poles, Towers & Fixtures, Overhead Conductors, and Services related |
| Account 584: Underground Line Account 594: Underground Line | | Accounts 366, 367, and 369.2, on the basis of Distribution Plant Investment in Accounts 366, 367, and 369.2 which are Underground Conduit, Underground Conductors, and Services related |
| Account 585: Street Lighting & Sign Account 596: Street Lighting & Sign | | Account 373, Street Lighting |

Account 586: Meter Expense
Account 597: Meter Expense

Account 370, Meters & Devices

Account 587: Customer Installations

Account 371: Installation on
Customer's Premises

Account 591: Structures

Account 361: Structures and
Improvements

Account 595: Line Transformers

Account 368: Line
Transformers

1

2 **Q. How does UPPCO allocate electric production costs to each rate schedule?**

3 A. Production energy related costs are allocated based on the kWh energy usage by
4 rate schedule. In accordance with the MPSC's order in Case No. U-4771, UPPCO
5 has allocated electric production demand costs using the Demand – Production
6 allocator, which is weighted on the basis of 75% 12-CP Demand of firm system load,
7 and 25% Energy. UPPCO serves less than 1 million customers and therefore,
8 pursuant to MCL 460.11(5), is not required to use the "50-25-25" allocation
9 methodology. A portion of the production demand costs have been direct assigned
10 to the RTMP rate schedule based upon an ad-hoc analysis, which can be found in
11 my associated workpapers.

12

13 **Q. How does UPPCO allocate transmission costs to each rate schedule?**

14 A. Transmission costs are allocated using the Transmission allocator, which is based
15 upon the 12-CP demands of total system load (i.e. both firm and interruptible).

16

17 **Q. Are Transmission O&M expenses allocated in the same manner as other
18 Transmission expense and plant investment?**

19 A. Transmission O&M expense is allocated similarly in the sense that the Transmission
20 O&M allocator is based upon the 12-CP demands of total system load (i.e. both firm

1 and interruptible). Real-time Market Pricing (“RTMP”) customers are allocated zero
2 percent of Transmission O&M expense, because within the COSS, RTMP rate
3 schedule is only allocated non-Power Supply Cost Recovery (“PSCR”) costs, and the
4 Transmission O&M costs portrayed in the COSS are all PSCR related.

5

6 **Q. How does UPPCO allocate customer costs to each rate schedule?**

7 A. In general, customer costs are allocated based on total annual customer counts by
8 rate schedule.

9

10 With respect to customer costs in Account 904 Uncollectibles, the costs are allocated
11 based on total historical 2010 uncollectible costs by rate schedule.

12

13 With respect to customer costs in O&M Customer Accounts 906 – 917, costs are
14 allocated based on total customer energy usage with a weighting factor applied. The
15 weighting factor was created based upon the customer service labor and non-labor
16 costs associated with residential, small commercial, industrial and lighting rate
17 classes.

18

19 **Q. How does UPPCO allocate Administrative and General (“A&G”) costs to each
20 rate schedule?**

21 A. First, a piece of A&G costs are directly allocated to RTMP customers based upon a
22 proportional split of the direct assigned O&M Production Demand expense to Total
23 O&M Expense (excluding any direct assigned costs or PSCR costs). Once the
24 RTMP direct assigned piece of A&G is calculated, the remaining A&G costs are then
25 functionalized. Account 924 Property Insurance and Account 928 related to System
26 Planning and Engineering is direct assigned to the Production Demand function.
27 The remaining amount of A&G costs are functionalized according to Salaries and

1 Wages, which can be found in Mr. DeMerritt's Ex. A-3 (SDD-3), Schedule C5 and
2 associated workpapers for the 2012 projected test year, and in Mr. DeMerritt's Ex. A-
3 13 (SDD-9), Schedule C5 and associated workpapers for the 2010 historic test year.
4 Once functionalized, the costs are then allocated to rate schedules based upon the
5 respective allocation methodology.
6

7 **Q. Please describe the remaining components of the UPPCO's COSS that have**
8 **unique allocators and why these unique allocators are appropriate.**

9 A. The remaining components of UPPCO's COSS which have unique allocators are as
10 follows:

- 11 1. Other Electric Revenues in Account 450: Late Payment Revenues were allocated
12 to the rate schedules based upon a Revenue allocation method, which is shown
13 on Ex. A-6 (JCHM-1), Schedule F1.2, Schedule F1.16 and Schedule F1.27 for
14 the Integrated Retail System, Iron River Retail System, and Combined Retail
15 System, respectively, for the 2012 projected test year. The Revenue allocator
16 was utilized because the amounts booked to this account are based upon a
17 percentage of customers' total unpaid bill balances.
18
- 19 2. Other Electric Revenues in Account 456, specifically revenue relating to Revenue
20 Coupling were allocated to the rate schedules based upon three different
21 Revenue Decoupling Allocation methods: Revenue Decoupling – Residential,
22 Revenue Decoupling – Secondary, and Revenue Decoupling – Primary &
23 Transmission. These allocation methods allocate the Revenue Decoupling
24 revenue specifically associated with these customer classes. The Revenue
25 Decoupling allocation methods are based upon the kwh sales for these
26 respective customer classes, and was utilized because these revenues are
27 collected upon a kwh basis.
28
- 29 3. Taxes other than Income Taxes ("TOTIT") associated with Real Estate &
30 Property and Unauthorized Insurance Tax were allocated to the rate schedules
31 based upon a Rate Base allocator, which is shown on Ex. A-6 (JCHM-1),
32 Schedule F1.2, Schedule F1.16 and Schedule F1.27 for the Integrated Retail
33 System, Iron River Retail System, and Combined Retail System, respectively, for
34 the 2012 projected test year. The Rate Base allocator was utilized because
35 these items follow cost-causation theory from various Rate Base investments.
36
- 37 4. In Ex. A-6 (JCHM-1) Schedules F1.1 - F1.3, Schedules F1.15 - F1.17 and
38 Schedules F1.26 - F1.28 for the Integrated Retail System, Iron River Retail
39 System, and Combined Retail System, respectively, for the 2012 projected test
40 year, Income Taxes were allocated to the rate schedules based upon a Net
41 Income allocator. The Net Income allocation method was required by Order
42 Point 10 (l). of the December 14, 2010 Settlement Agreement to Docket No. U-
43 16166.
44

1 5. In Ex. A-6 (JCHM-1) Schedules F1.12 - F1.14, Schedules F1.23 - F1.25 and
2 Schedules F1.34 - F1.36 for the Integrated Retail System, Iron River Retail
3 System, and Combined Retail System, respectively, for the 2012 projected test
4 year, Income Taxes were allocated to the rate schedules based upon a Rate
5 Base allocator. The Rate Base allocator was utilized because UPPCO believes
6 these items follow cost-causation theory from Rate Base investment and also
7 provides the stability of results over time, which are both important
8 considerations when choosing appropriate allocation methodologies. Further on
9 in my pre-filed direct testimony, I provide further detail and explanation as to why
10 Rate Base is the best cost-causation allocation method for Income Taxes.
11

12 **Integrated Retail System 2012 COSS**
13 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.1.**

14 A. As required by the Commission's Orders dated December 23, 2008 and February
15 20, 2009 issued in Case No. U-15895, Schedule F1.1 is a summary of the COSS
16 results for the Integrated Retail System for the 2012 projected test year. The
17 summary corresponds to the COSS where Income Tax is allocated on the basis of
18 Net Income. Each page summarizes the various components of the operating
19 income and rate base to the jurisdictions, rate classes and rate schedules.
20 Additionally, each page provides the revenue deficiency and revenue requirement by
21 jurisdiction, rate class, and rate schedule. Schedule F1.1 consists of 4 pages.

22
23 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.2.**

24 A. Schedule F1.2 is a detailed summary of the COSS results for the Integrated Retail
25 System for the 2012 projected test year where Income Tax is allocated on the basis
26 of Net Income. Within Schedule F1.2, each rate schedule is presented in a side-by-
27 side, columnar format with the details of each component of operating income and
28 rate base presented, and the allocation methodology that was used to allocate the
29 costs and plant investment are provided in Column [B] of each page. Schedule F1.2
30 consists of 10 pages.

31
32 Page 1 summarizes the various components of the operating income and rate base
33 to the rate schedules in the Integrated Retail System for the 2012 projected test year.

1 Line 45 of page 1 shows the Rate of Return resulting from the projected results of
2 operation. Line 59 of page 1 shows the revenue deficiency by rate class based on a
3 proposed rate of return of 10.75%, which is supported in the pre-filed direct
4 testimony of Mr. Paul R. Moul. Page 1 also includes the creation of the allocation
5 methodology for Rate Base, which is used throughout other pages of the COSS.
6 Page 1 also includes the creation of the allocation methodology for Net Income,
7 which is used to allocate Income Taxes as shown on the same page of the COSS.

8
9 Page 2 contains the Operating Revenues for the Integrated Retail System based on
10 the rates authorized in UPPCO's last general rate case in Case No. U-16166. Page
11 2 also includes the creation of the allocation methodology for Revenue, which is
12 used throughout other pages of the COSS.

13
14 Page 3 contains the Allocation of O&M Expense, including A&G expense, for the
15 Integrated Retail System.

16
17 Page 4 contains the Allocation of Depreciation Expense, including Amortization
18 Expense, with General expenses apportioned, for the Integrated Retail System.

19
20 Page 5 contains the Allocation of Taxes Other Than Income Taxes for the Integrated
21 Retail System.

22
23 Page 6 contains the Allocation of Other Income and Adjustments, both Before and
24 After Income Taxes, for the Integrated Retail System.

25
26 Page 7 contains the Allocation of the rate base component Plant-in-Service, with
27 General investment apportioned, for the Integrated Retail System. Page 7 also

1 includes the creation of the allocation methodology for Distribution Plant, which is
2 used throughout other pages of the COSS.

3

4 Page 8 contains the Allocation of the rate base component Accumulated
5 Depreciation – Straight Line, with General investment apportioned, for the Integrated
6 Retail System.

7

8 Page 9 contains the Allocation of the rate base component Construction Work in
9 Progress (“CWIP”), with General investment apportioned, for the Integrated Retail
10 System.

11

12 Page 10 contains the Allocation of Other Rate Base Components, such as Fuel
13 Stock, Materials & Supplies, Working Capital, Prepayments, Cash & Bank Balances,
14 Accrued Taxes, Net Plant Acquisition Adjustments, and Customer Advances, for the
15 Integrated Retail System.

16

17 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.3.**

18 A. Schedule F1.3 contains the classified and functionalized revenue requirements and
19 rate base for each of the rate schedules in UPPCO’s Integrated Retail electric
20 jurisdiction for the 2012 projected test year. Schedule F1.3 corresponds to the
21 COSS where Income Taxes are allocated on the basis of Net Income. There is one
22 page of information for each rate schedule. With 11 rate schedules in UPPCO’s
23 Integrated Retail electric jurisdiction, Schedule F1.3 consists of 11 pages.

24

25 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.4.**

26 A. Schedule F1.4 contains the creation of allocation factors utilized in the Integrated
27 Retail System COSS for the 2012 projected test year, and consists of two pages.

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There are 17 allocation factors on Page 1:

1. The Energy allocation factor, based upon annual kWh usage,
2. The Rev Decoupling – Res (i.e. Revenue Decoupling – Residential) allocation factor, based upon annual kWh usage for only residential rate schedules,
3. The Rev Decoupling – Sec (i.e. Revenue Decoupling – Secondary) allocation factor, based upon annual kWh usage for only non-residential secondary rate schedules,
4. The Rev Decoupling – Prim & Trans (i.e. Revenue Decoupling – Primary & Transmission) allocation factor, based upon annual kWh usage for only primary and transmission rate schedules, excluding RTMP,
5. The Transmission allocation factor, based upon 12-CP demands of all system load, for all customers including RTMP customers,
6. The Transmission O&M allocation factor, based upon 12-CP demands of all system load, but removing demand for RTMP customers,
7. The Demand – Production allocation factor, based upon 12-CP demands of firm load only,
8. The Demand – Distribution allocation factor, based upon 12-CP demands of total system load, for all customers excluding RTMP customers,
9. The CP Demand – Primary allocation factor, based upon 1-CP demands of firm load only. This allocation factor takes into consideration load at the primary voltage level,
10. The CP Demand – Secondary allocation factor, based upon 1-CP demands of firm load only. This allocation factor takes into consideration load at the secondary voltage level and also incorporates a street lighting weighting factor,
11. The Non-Coincident Demand allocation factor, based upon 12-NCP demands of all system load,
12. The Cust Max Acct 368 allocation factor, based upon 1-NCP demands of all system load. This allocation factor takes into consideration load at the primary voltage level and also incorporates a Transformer Cost per kW weighting factor,
13. The Customer allocation factor, based upon total annual number of customers,
14. The Acct 364 Primary – Customer allocation factor, based upon total annual number of customers served at the primary voltage level. This allocation factor also incorporates a street lighting weighting factor,
15. The Acct 365/267 Primary – Customer allocation factor, based upon total annual number of customers served at the primary voltage level. This

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allocation factor also incorporates a street lighting and three-phase weighting factor,

16. The Acct 364 Secondary – Customer allocation factor, based upon total annual number of customers served at the secondary voltage level. This allocation factor also incorporates a street lighting weighting factor, and

17. The Acct 365/367 Secondary – Customer allocation factor, based upon total annual number of customers served at the secondary voltage level. This allocation factor also incorporates a street lighting and three-phase weighting factor.

13

The allocation factors found on Page 2 are comprised of eight allocation factors:

14

1. The Customer Services & Sales allocation factor, based upon kWh usage of each rate schedule weighted for the customer service labor and non-labor costs associated with various customer classes,

15

16

2. The Customer Acct 368 allocation factor, based upon the average bill count of customers served at primary voltage level with the exception of utilizing average lamp counts, rather than customer counts, for the lighting rate schedules. This allocation factor also takes into consideration a Transformer Cost per Customer weighting factor,

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3. The Acct 369 – Services allocation factor, based upon average bill count of customers served at secondary voltage level, taking into consideration a weighting factor for Cost per Customer for Service Lines,

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4. The Meters allocation factor, based upon average bill count of all customers, taking into consideration a weighting factor for Cost per Customer for Meters,

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5. The Customer – Lamps allocation factor, based upon total annual lamp counts,

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6. The Acct 904 allocation factor, based upon historical 2010 uncollectible expense by rate schedule,

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7. The Salaries & Wages – Functional allocation factor, based upon salaries and wages expense by function, and

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8. The Salaries & Wages – Rate Schedule allocation factor, based upon the functional expense, as shown in Salaries & Wages – Functional, allocated to each of the rate schedules with the respective allocation methodology.

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Q. Can you please describe how the loss factors shown in Ex. A-6 (JCHM-1),

47

Schedule F1.4 are used in the development of the allocator factors?

48

A. The metered data UPPCO uses (i.e. energy and demands) for allocation factors is at

49

the customer level, while the known system load is at the generation level. Losses

1 account for the difference between the generation level and the customer level data,
2 therefore loss factors are applied against the metered data to account for the losses,
3 and to arrive at a generation level.

4

5 There are different loss factors for energy and demand, as well as different loss
6 factors for customers served at Transmission, Primary, and Secondary voltages.
7 Each rate schedules' metered energy and demands are grossed up by the
8 respective loss factor in order to assign the losses to the correct rate schedules. For
9 example, Transmission voltage customers only have transmission losses applied to
10 their energy and demands, while Primary voltage customers have both transmission
11 losses and primary losses applied to their energy and demands.

12

13 **Q. Can you please explain the significance of the far right column labeled**
14 **“Source or Allocation Factor” on each page of Ex. A-6 (JCHM-1), Schedule**
15 **F1.4?**

16 A. The far right column labeled “Source or Allocation Factor” represents the name that
17 was given to each of the specific allocators created within Schedule F1.4. Each of
18 these names shown in the “Source or Allocation Factor” column is what is used
19 throughout the COSS in Ex. A-6 (JCHM-1.), Schedule F1.2 when referencing the
20 allocation methodology that was used to allocate costs to the rate schedules.

21

22 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.5.**

23 A. Schedule F1.5 consists of one page and contains the analysis behind the creation of
24 the Cost per Customer for Service Lines weighting factor utilized in the creation of
25 Acct 369 – Services allocation factor. The data is based upon actual plant
26 investment by rate schedule as of December 31, 2010.

27

1 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.6.**

2 A. Schedule F1.6 consists of one page and contains the analysis behind the creation of
3 the Cost per Customer for Meters weighting factor utilized in the creation of Meters
4 allocation factor. The data is based upon actual plant investment by rate schedule
5 as of December 31, 2010.

6

7 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.7.**

8 A. Schedule F1.7 contains the classification and functionalization of Integrated Retail
9 System data for the 2012 projected test year. Schedule F1.7 consists of five pages.

10

11 Page 1 contains a detailed breakdown of the classification and functionalization of
12 Plant-in-Service, with General investment apportioned. Direct allocations were made
13 whenever possible. This page also portrays the classification and functionalization of
14 Plant Accounts 364, 365, and 367 amongst Primary, Secondary, Street Lighting,
15 General Lighting, and Private Lighting, as well as the Customer and Demand
16 functions. These classified and functionalized values are utilized and allocated to the
17 rate schedules as shown in Ex. A-6 (JCHM-1), Schedule F1.2, page 7.

18

19 Page 2 contains a detailed breakdown of the classification and functionalization of
20 Accumulated Depreciation – Straight Line, with General investment apportioned.
21 Direct allocations were made whenever possible. This page also portrays the
22 classification and functionalization of Plant Accounts 364, 365, and 367 amongst
23 Primary, Secondary, Street Lighting, General Lighting, and Private Lighting, as well
24 as the Customer and Demand functions. These classified and functionalized values
25 are utilized and allocated to the rate schedules as shown in Ex. A-6 (JCHM-1),
26 Schedule F1.2, page 8.

27

1 Page 3 contains a detailed breakdown of the classification and functionalization of
2 CWIP, with General investment apportioned. Direct allocations were made
3 whenever possible. This page also portrays the classification and functionalization of
4 Plant Accounts 364, 365, and 367 amongst Primary, Secondary, Street Lighting,
5 General Lighting, and Private Lighting, as well as the Customer and Demand
6 functions. These classified and functionalized values are utilized and allocated to the
7 rate schedules as shown in Ex. A-6 (JCHM-1), Schedule F1.2, page 9.

8
9 Page 4 contains a detailed breakdown of the classification and functionalization of
10 Depreciation Expense, with General expense apportioned. Direct allocations were
11 made whenever possible. This page also portrays the classification and
12 functionalization of Plant Accounts 364, 365, and 367 amongst Primary, Secondary,
13 Street Lighting, General Lighting, and Private Lighting, as well as the Customer and
14 Demand functions. These classified and functionalized values are utilized and
15 allocated to the rate schedules as shown in Ex. A-6 (JCHM-1), Schedule F1.2, page
16 4.

17
18 Page 5 contains a detailed breakdown of the classification and functionalization of
19 O&M Expense, including A&G expense. Direct allocations were made whenever
20 possible. This page also portrays the classification and functionalization of Plant
21 Accounts 364, 365, and 367 amongst Primary, Secondary, Street Lighting, General
22 Lighting, and Private Lighting, as well as the Customer and Demand functions.
23 These classified and functionalized values are utilized and allocated to the rate
24 schedules as shown in Ex. A-6 (JCHM-1), Schedule F1.2, page 3.

25

26 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.8.**

27 A. Schedule F1.8 consists of one page and contains the computations behind the

1 translation of O&M FERC Distribution Accounts 580 through 598 to FERC Plant
2 Distribution Accounts 303, and 360 through 373 for the Integrated Retail System for
3 the 2012 projected test year.

4

5 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.9.**

6 A. Schedule F1.9 consists of one page and contains the summary showing Corporate
7 UPPCO actual plant investment booked to Accounts 364: Poles, 365: Overhead
8 Wires, and 367: Underground Wires, split amongst the categories of Primary,
9 Secondary, Street Lighting, General Lighting, and Private Lighting. The analysis is
10 based upon actual plant investment as of December 31, 2010 adjusted to current
11 cost using Handy-Whitman data.

12

13 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.10.**

14 A. Schedule F1.10 consists of three pages and contains the Minimum System Analysis
15 that was conducted upon Corporate UPPCO actual plant investment booked to
16 Accounts 364: Poles, 365: Overhead Wires, and 367: Underground Wires.

17

18 As stated earlier in my testimony, a minimum distribution system study is utilized in
19 the COSS to identify the smallest poles and wires that would be used to connect
20 customers to the distribution system regardless of their energy usage or demand.
21 These costs are needed to support the minimum distribution system, have a
22 relationship to the number of customers, and are allocated on that basis. The costs
23 in excess of the minimum system are related to the demand of customers, and are
24 therefore allocated based on the customers' demands.

25

26 In the Minimum System Analysis conducted for UPPCO, the unit cost of the
27 minimum size pole was determined for primary and secondary voltage facilities.

1 When viewing Schedule F1.10, the unit cost (Column [E]), was determined using
2 actual plant investment as of December 31, 2010 adjusted to current cost using
3 Handy-Whitman data, which is shown in Column [F]. The unit cost of the minimum
4 size pole (Column [G]), was then multiplied by the number of poles, as shown in
5 Column [D], to estimate the cost of the minimum system, as shown in Column [H].

6

7 As shown in the Summary section on page 3, the ratio of the minimum system
8 dollars to the total dollars was used as the percentage of Account 364 to be
9 classified on a customer basis. The remaining portion of the pole costs are classified
10 to demand. The same calculations and procedures followed suit in determining the
11 minimum system amount for Accounts 365 and 367.

12

13 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.11.**

14 A. Schedule F1.11 consists of 19 pages and contains the regression analyses
15 performed on Account 368: Transformers for the UPPCO Retail System. The
16 regression analyses were performed by rate schedule, which used historic
17 consumption frequency distributions versus sample rate schedule observations of
18 investment per customer. This analysis is a study based on 2010 historic test year
19 customer NCP demands and cost distributions. UPPCO has quantified the cost
20 impacts of transformer costs by performing regression analyses of costs relative to
21 the number of customers and their respective demand at the transformer. These
22 cost impacts are accounted for by classifying transformer distribution costs in Plant
23 Account 368 to both the demand and customer classifications. Based on the
24 regression analyses, 47.7% of account 368 costs were classified to customer and
25 52.3% were classified to demand for the Integrated Retail system, 37.3% of account
26 368 costs were classified to customer and 62.7% were classified to demand for the

1 Iron River Retail system, and 46.8% of account 368 costs were classified to
2 customer, and 53.2% were classified to demand for the Combined Retail system.

3

4 For each rate schedule, there are three pages of data within Schedule F1.11 relating
5 to each rate schedule's regression analysis. The like rate schedule from the
6 Integrated Retail System was combined with the like rate schedule from the Iron
7 River System to conduct the analyses. There is one page detailing the data and
8 stratification ranges, based upon kWh usage of each customer, utilized in the
9 regression analysis for the rate schedule. The second page portrays the results of
10 the regression analysis in the form of a Summary Output table, an Analysis of
11 Variance ("ANOVA") table, and a Residuals Output table. The values of Intercept
12 and Kw per Customer shown in the ANOVA table are the values utilized in the
13 creation of the rate schedule weighting factors within the customer and demand
14 components of the transformer allocation methodologies, respectively. Lastly, a third
15 page shows a graph titled Kw per Customer Line Fit Plot, which portrays the actual
16 data as best fit with the regression equation that was calculated from the regression
17 analysis.

18

19 Page 19 of Schedule F1.11 presents a summary table of the Intercept and Annual
20 Kw per Customer values from the corresponding ANOVA tables for each of the rate
21 schedules. These values are utilized as the rate schedule weighting factors within
22 the customer and demand components of the transformer allocation methodologies,
23 respectively.

24

25 Regression analyses were only conducted for the A-1/AH-2, AH-1/AH-2, C-1/C-2, H-
26 1/H-2, P-1/P-2, and CP-U Secondary/Primary rate schedules. Rate schedules CP-U
27 Transmission, RTMP, WP-3 and Schedule A did not have regression analyses

1 performed due to these rate schedules being served at transmission voltage. The
2 lighting rate schedules SL and Z-3/Z-4 did not have regression analyses performed
3 because the small amount of data available for these rate schedules did not allow for
4 meaningful analyses to be performed. Therefore, the results of the regression
5 analysis for the A-1/A-2 combined rate schedule were used as a proxy for the
6 weighting factors for the SL and Z-3/2 rate schedules.

7
8 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.12.**

9 A. As required by the Commission's Orders dated December 23, 2008 and February
10 20, 2009 issued in Case No. U-15895, Schedule F1.12 is a summary of the COSS
11 results for the Integrated Retail System for the 2012 projected test year. The
12 summary corresponds to the COSS where Income Tax is allocated on the basis of
13 Rate Base. Schedule F1.12 consists of four pages.

14
15 **Q. Do the four pages of the 2012 projected test year COSS shown in Schedule**
16 **F1.12 of Exhibit A-6 (JCHM-1) for the Integrated Retail System where Income**
17 **Taxes are allocated on the basis of Rate Base follow the same layout as**
18 **presented in Schedule F1.1 of Exhibit A-6 (JCHM-1), which is the 2012**
19 **projected test year COSS for the Integrated Retail System where Income Taxes**
20 **are allocated on the basis of Net Income?**

21 A. Yes, they do. The only differences would be the lines labeled "Income Tax" and
22 "Additional Income Tax on Return Def.", which show Income Taxes being allocated
23 to the rate schedules based upon the Rate Base allocation methodology, rather than
24 being allocated upon Net Income, which is shown in Schedule F1.1. This difference
25 in allocation methodology affects the values shown in Schedule F1.12, Line 44, the
26 Percent Rate of Return, and Lines 48-61, which calculate the revenue deficiency by
27 rate class, as compared to these items shown in Schedule F1.1.

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Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.13.

A. Schedule F1.13 is a detailed summary of the COSS results for the Integrated Retail System for the 2012 projected test year where Income Tax is allocated on the basis of Rate Base. Schedule F1.2 consists of one page.

Q. Does Schedule F1.13 of Exhibit A-6 (JCHM-1) for the Integrated Retail System where Income Taxes are allocated on the basis of Rate Base follow the same layout as page one presented in Schedule F1.2 of Exhibit A-6 (JCHM-1), which is the 2012 projected test year COSS for the Integrated Retail System where Income Taxes are allocated on the basis of Net Income?

A. Yes, it does. The only differences would be the lines labeled "Income Tax" and "Additional Income Tax on Return Def." on Schedule F1.13, which show Income Taxes and related items being allocated to the rate schedules based upon the Rate Base allocation methodology, rather than being allocated upon Net Income, which is shown on page one of Schedule F1.2. This difference in allocation methodology affects the values shown in Schedule F1.13, Line 43, the Percent Rate of Return, and Lines 47-59, which calculate the revenue deficiency by rate class, as compared to these items shown in Schedule F1.2.

Q. If Schedule F1.13 of Exhibit A-6 (JCHM-1) for the Integrated Retail System where Income Taxes are allocated on the basis of Rate Base follows the same layout as presented in Schedule F1.2 of Exhibit A-6 (JCHM-1), which is the 2012 projected test year COSS for the Integrated Retail System where Income Taxes are allocated on the basis of Net Income, why doesn't Schedule F1.13 consist of 10 pages as does Schedule F1.2?

1 A. The only item that changes in the COSS presented in Schedule F1.13 as compared
2 to the COSS presented in Schedule F1.2 is the allocation of Income Taxes. All other
3 allocations, costs and investments, as portrayed in pages 2-10 of Schedule F1.2,
4 remain unchanged. Therefore, there is no need to present additional information
5 beyond page one of Schedule F1.13.

6

7 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.14.**

8 A. Schedule F1.14 contains the classified and functionalized revenue requirements and
9 rate base for each of the rate schedules in UPPCO's Integrated Retail electric
10 jurisdiction for the 2012 projected test year. This Schedule corresponds to the
11 COSS where Income Taxes are allocated on the basis of Rate Base. There is one
12 page of information for each rate schedule. With 11 rate schedules in UPPCO's
13 Integrated Retail electric jurisdiction, Schedule F1.14 consists of 11 pages.

14

15 **Q. Do the 11 pages of the 2012 projected test year COSS shown in Schedule F1.14**
16 **of Exhibit A-6 (JCHM-1) for the Integrated Retail System where Income Taxes**
17 **are allocated on the basis of Rate Base follow the same layout as presented in**
18 **Schedule F1.3 of Exhibit A-6 (JCHM-1), which is the 2012 projected test year**
19 **COSS for the Integrated Retail System where Income Taxes are allocated on**
20 **the basis of Net Income?**

21 A. Yes, they do. The only differences would be on Schedule F1.14, line 23 and 36,
22 which portrays Income Taxes as allocated based upon the Rate Base allocation
23 methodology. In Schedule F1.3, line 23 and 36 portrays Income Taxes as allocated
24 based upon Net Income. This difference in allocation methodology affects the values
25 shown in Schedule F1.14, line 32, Actual Return, line 34, Return Income Deficiency,
26 line 38, Revenue Requirements, and line 40, Cost per Consumption Unit, as
27 compared to these items shown in Schedule F1.3.

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Q. Are Exhibits A-6 (JCHM-1) Schedule F1.12, Schedule F1.13 and Schedule F1.14 the only Integrated Retail COSS exhibits for the projected 2012 test year that change due to the different method of allocating Income Taxes?

A. Yes, they are. All other allocation methodologies, supplementary analyses, and the Functionalization and Classification of costs and investments remain the same when comparing the two COSS.

Iron River Retail System 2012 COSS
Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.15.

A. As required by the Commission's Orders dated December 23, 2008 and February 20, 2009 issued in Case No. U-15895, Schedule F1.15 is a summary of the COSS results for the Iron River Retail System for the 2012 projected test year. The summary corresponds to the COSS where Income Tax is allocated on the basis of Net Income. Each page summarizes the various components of the operating income and rate base to the jurisdictions, rate classes, and rate schedules. Additionally, revenue deficiency and revenue requirement are shown by jurisdictions, rate classes, and rate schedule. Schedule F1.15 consists of three pages.

Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.16.

A. Schedule F1.16 is a detailed summary of the COSS results for the Iron River Retail System for the 2012 projected test year where Income Tax is allocated on the basis of Net Income. Within Schedule F1.16, each rate schedule is presented in a side-by-side, columnar format, the details of each component of operating income and rate base are presented, and the allocation methodology that was used to allocate the costs and plant investment are provided in Column [B] of each page. Schedule F1.16 consists of 10 pages.

1 Page 1 summarizes the various components of the operating income and rate base
2 to the rate schedules in the Iron River Retail System for the 2012 projected test year.
3 Line 45 of page 1 shows the Rate of Return resulting from the projected results of
4 operation. Line 59 of page 1 shows the revenue deficiency by rate class based on
5 the proposed rate of return of 10.75%, which is supported in the pre-filed direct
6 testimony of Mr. Paul R. Moul. Page 1 also includes the creation of the allocation
7 methodology for Rate Base, which is used throughout other pages of the COSS.
8 Page 1 also includes the creation of the allocation methodology for Net Income,
9 which is used to allocation Income Taxes on the same page of the COSS.

10
11 Page 2 contains the Operating Revenues for the Iron River Retail System based on
12 the rates authorized in UPPCO's last general rate case in Case No. U-16166. Page
13 2 also includes the creation of the allocation methodology for Revenue, which is
14 used throughout other pages of the COSS.

15
16 Page 3 contains the Allocation of O&M Expense, including A&G expense, for the Iron
17 River Retail System.

18
19 Page 4 contains the Allocation of Depreciation Expense, including Amortization
20 Expense, with General expenses apportioned, for the Iron River Retail System.

21
22 Page 5 contains the Allocation of Taxes Other Than Income Taxes for the Iron River
23 Retail System.

24
25 Page 6 contains the Allocation of Other Income and Adjustments, both Before and
26 After Income Taxes, for the Iron River Retail System.

27

1 Page 7 contains the Allocation of the rate base component Plant-in-Service, with
2 General investment apportioned, for the Iron River Retail System. Page 2 also
3 includes the creation of the allocation methodology for Distribution Plant, which is
4 used throughout other pages of the COSS.

5
6 Page 8 contains the Allocation of the rate base component Accumulated
7 Depreciation – Straight Line, with General investment apportioned, for the Iron River
8 Retail System.

9
10 Page 9 contains the Allocation of the rate base component CWIP, with General
11 investment apportioned, for the Iron River Retail System.

12
13 Page 10 contains the Allocation of Other Rate Base Components, such as Fuel
14 Stock, Materials & Supplies, Working Capital, Prepayments, Cash & Bank Balances,
15 Accrued Taxes, Net Plant Acquisition Adjustments, and Customer Advances, for the
16 Iron River Retail System.

17
18 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.17.**

19 A. Schedule F1.17 contains the classified and functionalized revenue requirements and
20 rate base for each of the rate schedules in UPPCO's Iron River Retail electric
21 jurisdiction. This Schedule corresponds to the COSS where Income Taxes are
22 allocated on the basis of Net Income. There is one page of information for each rate
23 schedule. With eight rate schedules in UPPCO's Iron River Retail electric
24 jurisdiction, Schedule F1.17 consists of eight pages.

25
26 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.18.**

27 A. Schedule F1.18 contains the creation of the allocation factors utilized in the Iron

1 River Retail System COSS for the 2012 projected test year, and consists of two
2 pages. There are 16 allocation factors on Page 1:

- 3 1. The Energy allocation factor, based upon total annual kWh usage,
4
- 5 2. The Rev Decoupling – Res (i.e. Revenue Decoupling – Residential)
6 allocation factor, based upon annual kWh usage for only residential rate
7 schedules,
8
- 9 3. The Rev Decoupling – Sec (i.e. Revenue Decoupling – Secondary)
10 allocation factor, based upon annual kWh usage for only non-residential
11 secondary rate schedules,
12
- 13 4. The Rev Decoupling – Prim & Trans (i.e. Revenue Decoupling – Primary
14 & Transmission) allocation factor, based upon annual kWh usage for only
15 primary and transmission rate schedules,
16
- 17 5. The Transmission allocation factor, based upon 12-CP demands of all
18 system load,
19
- 20 6. The Demand-Production allocation factor, based upon 12-CP demands of
21 firm load only. This allocation factor also takes into consideration a
22 75%/25% weighting factor,
23
- 24 7. The Demand-Distribution allocation factor, based upon 12-CP demands
25 of total system load,
26
- 27 8. The CP Demand – Primary allocation factor, based upon 1-CP demands
28 of firm load only. This allocation factor takes into consideration load at
29 the primary voltage level,
30
- 31 9. The CP Demand – Secondary allocation factor, based upon 1-CP
32 demands of firm load only. This allocation factor takes into consideration
33 load at the secondary voltage level and also incorporates a street lighting
34 weighting factor,
35
- 36 10. The Non-Coincident Demand allocation factor, based upon 12-NCP
37 demands of all system load,
38
- 39 11. The Cust Max Acct 368 allocation factor, based upon 1-NCP demands of
40 all system load. This allocation factor takes into consideration load at the
41 primary voltage level and also incorporates a Transformer Cost per kW
42 weighting factor,
43
- 44 12. The Customer allocation factor, based upon total annual number of
45 customers,
46
- 47 13. The Acct 364 Primary – Customer allocation factor, based upon total
48 annual number of customers served at the primary voltage level. This
49 allocation factor also incorporates a street lighting weighting factor,
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- 51 14. The Acct 365/367 Primary – Customer allocation factor, based upon total
52 annual number of customers served at the primary voltage level. This

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allocation factor also incorporates a street lighting and three-phase weighting factor,

- 15. The Acct 364 Secondary – Customer allocation factor, based upon total annual number of customers served at the secondary voltage level. This allocation factor also incorporates a street lighting weighting factor, and
- 16. The Acct 365/367 Secondary – Customer allocation factor, based upon total annual number of customers served at the secondary voltage level. This allocation factor also incorporates a street lighting and three-phase weighting factor.

The allocation factors found on Page 2 are comprised of eight allocation factors:

- 1. The Customer Services & Sales allocation factor, based upon kWh usage of each rate schedule weighted for the customer service labor and non-labor costs associated various customer rate classes,
- 2. The Customer Acct 368 allocation factor, based upon average bill count of customers served at primary voltage level with the exception of utilizing average lamp counts, rather than customer counts, for the lighting rate schedules. This allocation factor also takes into consideration a Transformer Cost per Customer weighting factor,
- 3. The Acct 369 – Services allocation factor, based upon average bill count of customers served at secondary voltage level, taking into consideration a weighting factor for Cost per Customer for Service Lines,
- 4. The Meters allocation factor, based upon average bill count of all customers, taking into consideration a weighting factor for Cost per Customer for Meters,
- 5. The Customer – Lamps allocation factor, based upon total annual lamp counts,
- 6. The Acct 904 allocation factor, based upon 2010 historic test year uncollectible expense by rate schedule,
- 7. The Salaries & Wages – Functional allocation factor, based upon salaries and wages expense by function,
- 8. The Salaries & Wages – Rate Schedule allocation factor, based upon the functional expense, as shown in Salaries & Wages – Functional, allocated to each of the rate schedules with the respective allocation methodology.

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- Q. Can you please describe how the loss factors shown in Ex. A-6 (JCHM-1), Schedule F1.18 are used in the development of the allocator factors?**
- A. The metered data UPPCO uses (i.e. energy and demands) for allocation factors is at the customer level, while the known system load is at generation level. Losses

1 account for the difference between the generation level and the customer level data,
2 therefore loss factors are applied against the metered data to account for the losses,
3 and to arrive at a generation level.

4
5 There are different loss factors for energy and demand, as well as different loss
6 factors for customers served at the Transmission, Primary and Secondary voltages.
7 Each rate schedules' metered energy and demands are grossed up by the
8 respective loss factor in order to assign the losses to the correct rate schedules. For
9 example, Transmission voltage customers only have transmission losses applied to
10 their energy and demands, while Secondary voltage customers have transmission,
11 primary and secondary losses applied to their energy and demands.

12

13 **Q. Can you please explain the significance of the far right column labeled**
14 **“Source or Allocation Factor” on each page of Ex. A-6 (JCHM-1), Schedule**
15 **F1.18?**

16 A. The far right column labeled “Source or Allocation Factor” represents the name that
17 was given to each of the specific allocators created within Schedule F1.18. Each of
18 these names shown in the “Source or Allocation Factor” column is what is used
19 throughout the COSS in Ex. A-6 (JCHM-1), Schedule F1.16 when referencing the
20 allocation methodology that was used to allocate costs to the rate schedules.

21

22 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.19.**

23 A. Schedule F1.19 consists of one page and contains the analysis behind the creation
24 of the Cost per Customer for Service Lines weighting factor utilized in the creation of
25 Acct 369 – Services allocation factor. The data is based upon actual plant
26 investment by rate schedule as of December 31, 2010.

27

1 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.20.**

2 A. Schedule F1.20 consists of one page and contains the analysis behind the creation
3 of the Cost per Customer for Meters weighting factor utilized in the creation of Meters
4 allocation factor. The data is based upon actual plant investment by rate schedule
5 as of December 31, 2010.

6

7 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.21.**

8 A. Schedule F1.21 contains the classification and functionalization of Iron River Retail
9 System data for the 2012 projected test year. Schedule F1.21 consists of five pages.

10

11 Page 1 contains a detailed breakdown of the classification and functionalization of
12 Plant-in-Service, with General investment apportioned. Direct allocations were made
13 whenever possible. This page also portrays the classification and functionalization of
14 Plant Accounts 364, 365, and 367 amongst Primary, Secondary, Street Lighting,
15 General Lighting, and Private Lighting, as well as the Customer and Demand
16 functions. These classified and functionalized values are utilized and allocated to the
17 rate schedules as shown in Ex. A-6 (JCHM-1), Schedule F1.16, page 7.

18

19 Page 2 contains a detailed breakdown of the classification and functionalization of
20 Accumulated Depreciation – Straight Line, with General investment apportioned.
21 Direct allocations were made whenever possible. This page also portrays the
22 classification and functionalization of Plant Accounts 364, 365, and 367 amongst
23 Primary, Secondary, Street Lighting, General Lighting, and Private Lighting, as well
24 as the Customer and Demand functions. These classified and functionalized values
25 are utilized and allocated to the rate schedules as shown in Ex. A-6 (JCHM-1),
26 Schedule F1.16, page 8.

27

1 Page 3 contains a detailed breakdown of the classification and functionalization of
2 CWIP, with General investment apportioned. Direct allocations were made
3 whenever possible. This page also portrays the classification and functionalization of
4 Plant Accounts 364, 365, and 367 amongst Primary, Secondary, Street Lighting,
5 General Lighting, and Private Lighting, as well as the Customer and Demand
6 functions. These classified and functionalized values are utilized and allocated to the
7 rate schedules as shown in Ex. A-6 (JCHM-1), Schedule F1.16, page 9.

8
9 Page 4 contains a detailed breakdown of the classification and functionalization of
10 Depreciation Expense, with General expense apportioned. Direct allocations were
11 made whenever possible. This page also portrays the classification and
12 functionalization of Plant Accounts 364, 365, and 367 amongst Primary, Secondary,
13 Street Lighting, General Lighting, and Private Lighting, as well as the Customer and
14 Demand functions. These classified and functionalized values are utilized and
15 allocated to the rate schedules as shown in Ex. A-6 (JCHM-1), Schedule F1.16, page
16 4.

17
18 Page 5 contains a detailed breakdown of the classification and functionalization of
19 O&M Expense, including A&G expense. Direct allocations were made whenever
20 possible. This page also portrays the classification and functionalization of Plant
21 Accounts 364, 365, and 367 amongst Primary, Secondary, Street Lighting, General
22 Lighting, and Private Lighting, as well as the Customer and Demand functions.
23 These classified and functionalized values are utilized and allocated to the rate
24 schedules as shown in Ex. A-6 (JCHM-1), Schedule F1.16, page 3.

25

26 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.22.**

27 A. Schedule F1.22 consists of one page and contains the computations behind the

1 translation of O&M FERC Distribution Accounts 580 through 598 to FERC Plant
2 Distribution Accounts 303, and 360 through 373 for the Iron River Retail System for
3 the 2012 projected test year.

4

5 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.23.**

6 A. As required by the Commission's Orders dated December 23, 2008 and February
7 20, 2009 issued in Case No. U-15895, Schedule F1.23 is a summary of the COSS
8 results for the Iron River Retail System for the 2012 projected test year. The
9 summary corresponds to the COSS where Income Tax is allocated on the basis of
10 Rate Base. Schedule F1.23 consists of three pages.

11

12 **Q. Do the three pages of the 2012 projected test year COSS shown in Schedule**
13 **F1.23 of Exhibit A-6 (JCHM-1) for the Iron River Retail System where Income**
14 **Taxes are allocated on the basis of Rate Base follow the same layout as**
15 **presented in Schedule F1.15 of Exhibit A-6 (JCHM-1), which is the 2012**
16 **projected test year COSS for the Iron River Retail System where Income Taxes**
17 **are allocated on the basis of Net Income?**

18 A. Yes, they do. The only differences would be the lines labeled "Income Tax" and
19 "Additional Income Tax on Return Def.", which show Income Taxes being allocated
20 to the rate schedules based upon the Rate Base allocation methodology, rather than
21 being allocated upon Net Income, which is shown in Schedule F1.15. This difference
22 in allocation methodology affects the values shown in Schedule F1.23, Line 44, the
23 Percent Rate of Return, and Lines 48-61, which calculate the revenue deficiency by
24 rate class, as compared to these items shown in Schedule F1.15.

25

26 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.24.**

27 A. Schedule F1.24 is a detailed summary of the COSS results for the Iron River Retail

1 System for the 2012 projected test year where Income Tax is allocated on the basis
2 of Rate Base. Schedule F1.24 consists of one page.

3

4 **Q. Does Schedule F1.24 of Exhibit A-6 (JCHM-1) for the Iron River Retail System**
5 **where Income Taxes are allocated on the basis of Rate Base follow the same**
6 **layout as page one presented in Schedule F1.16 of Exhibit A-6 (JCHM-1), which**
7 **is the 2012 projected test year COSS for the Iron River Retail System where**
8 **Income Taxes are allocated on the basis of Net Income?**

9 A. Yes, it does. The only differences would be the lines labeled "Income Tax" and
10 "Additional Income Tax on Return Def." on Schedule F1.24, which show Income
11 Taxes being allocated to the rate schedules based upon the Rate Base allocation
12 methodology, rather than being allocated upon Net Income, which is shown on page
13 one of Schedule F1.16. This difference in allocation methodology affects the values
14 shown in Schedule F1.24, Line 43, the Percent Rate of Return, and Lines 47-59,
15 which calculate the revenue deficiency by rate class, as compared to these items
16 shown in Schedule F1.16.

17

18 **Q. If Schedule F1.24 of Exhibit A-6 (JCHM-1) for the Iron River Retail System**
19 **where Income Taxes are allocated on the basis of Rate Base follows the same**
20 **layout as presented in Schedule F1.16 of Exhibit A-6 (JCHM-1), which is the**
21 **2012 projected test year COSS for the Iron River Retail System where Income**
22 **Taxes are allocated on the basis of Net Income, why doesn't Schedule F1.24**
23 **consist of 10 pages as does Schedule F1.16?**

24 A. The only item that changes in the COSS presented in Schedule F1.24 as compared
25 to the COSS presented in Schedule F1.16 is the allocation of Income Taxes. All
26 other allocations, costs and investments, as portrayed in pages 2-10 of Schedule

1 F1.16, remain unchanged. Therefore, there is no need to present additional
2 information beyond page one of Schedule F1.24.

3

4 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.25.**

5 A. Schedule F1.25 contains the classified and functionalized revenue requirements and
6 rate base for each of the rate schedules in UPPCO's Iron River Retail electric
7 jurisdiction for the 2012 projected test year. This Schedule corresponds to the
8 COSS where Income Taxes are allocated on the basis of Rate Base. There is one
9 page of information for each rate schedule. With eight rate schedules in UPPCO's
10 Iron River Retail electric jurisdiction, Schedule F1.25 consists of eight pages.

11

12 **Q. Do the eight pages of the 2012 projected test year COSS shown in Schedule**
13 **F1.25 of Exhibit A-6 (JCHM-1) for the Iron River Retail System where Income**
14 **Taxes are allocated on the basis of Rate Base follow the same layout as**
15 **presented in Schedule F1.17 of Exhibit A-6 (JCHM-1), which is the 2012**
16 **projected test year COSS for the Iron River Retail System where Income Taxes**
17 **are allocated on the basis of Net Income?**

18 A. Yes, they do. The only differences would be on Schedule F1.25, line 23 and 36,
19 which portrays Income Taxes as allocated based upon the Rate Base allocation
20 methodology. In Schedule F1.17, line 23 and 36 portrays Income Taxes as allocated
21 based upon Net Income. This difference in allocation methodology affects the values
22 shown in Schedule F1.25, line 32, Actual Return, line 34, Return Income Deficiency,
23 line 38, Revenue Requirements, and line 40, Cost per Consumption Unit, as
24 compared to these items shown in Schedule F1.17.

25

1 **Q. Are Exhibits A-6 (JCHM-1) Schedule F1.23, Schedule F1.24 and Schedule F1.25**
2 **the only Iron River Retail COSS exhibits for the projected 2012 test year that**
3 **change due to the different method of allocating Income Taxes?**

4 A. Yes, they are. All other allocation methodologies, supplementary analyses, and the
5 Functionalization and Classification of costs and investments remain the same when
6 comparing the two COSS.

7

8 **Combined Retail System 2012 COSS**
9 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.26.**

10 A. As required by the Commission's Orders dated December 23, 2008 and February
11 20, 2009 issued in Case No. U-15895, Schedule F1.26 is a summary of the COSS
12 results for the Combined Retail System for the 2012 projected test year. The
13 summary corresponds to the COSS where Income Tax is allocated on the basis of
14 Net Income. Each page summarizes the various components of the operating
15 income and rate base to the jurisdictions, rate classes, and rate schedules.
16 Additionally, revenue deficiency and revenue requirement are shown by jurisdictions,
17 rate classes, and rate schedule. Schedule F1.26 consists of four pages.

18

19 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.27.**

20 A. Schedule F1.27 is a detailed summary of the COSS results for the Combined Retail
21 System for the 2012 projected test year where Income Tax is allocated on the basis
22 of Net Income. Within Schedule F1.27, each rate schedule is presented in a side-by-
23 side, columnar format, the details of each component of operating income and rate
24 base are presented, and the allocation methodology that was used to allocate the
25 costs and plant investment are provided in Column [B] of each page. Schedule
26 F1.27 consists of 10 pages.

27

28 Page 1 summarizes the various components of the operating income and rate base

1 to the rate schedules in the Combined Retail System for the 2012 projected test
2 year. Line 45 of page 1 shows the Rate of Return resulting from the projected
3 results of operation. Line 59 of page 1 shows the revenue deficiency by rate class
4 based on the proposed rate of return of 10.75%, which is supported in the pre-filed
5 direct testimony of Mr. Paul R. Moul. Page 1 also includes the creation of the
6 allocation methodology for Rate Base, which is used throughout other pages of the
7 COSS. Page 1 also includes the creation of the allocation methodology for Net
8 Income, which is used to allocation Income Taxes on the same page of the COSS.

9
10 Page 2 contains the Operating Revenues for the Combined Retail System based on
11 the rates authorized for Integrated Retail and Iron River Retail systems in UPPCO's
12 last general rate case in Case No. U-16166. Page 2 also includes the creation of the
13 allocation methodology for Revenue, which is used throughout other pages of the
14 COSS.

15
16 Page 3 contains the Allocation of O&M Expense, including A&G expense, for the
17 Combined Retail System.

18
19 Page 4 contains the Allocation of Depreciation Expense, including Amortization
20 Expense, with General expenses apportioned, for the Combined Retail System.

21
22 Page 5 contains the Allocation of Taxes Other Than Income Taxes for the Combined
23 Retail System.

24
25 Page 6 contains the Allocation of Other Income and Adjustments, both Before and
26 After Income Taxes, for the Combined Retail System.

27

1 Page 7 contains the Allocation of the rate base component Plant-in-Service, with
2 General investment apportioned, for the Combined Retail System. Page 7 also
3 includes the creation of the allocation methodology for Distribution Plant, which is
4 used throughout other pages of the COSS.

5
6 Page 8 contains the Allocation of the rate base component Accumulated
7 Depreciation – Straight Line, with General investment apportioned, for the Combined
8 Retail System.

9
10 Page 9 contains the Allocation of the rate base component CWIP, with General
11 investment apportioned, for the Combined Retail System.

12
13 Page 10 contains the Allocation of Other Rate Base Components, such as Fuel
14 Stock, Materials & Supplies, Working Capital, Prepayments, Cash & Bank Balances,
15 Accrued Taxes, Net Plant Acquisition Adjustments, and Customer Advances, for the
16 Combined Retail System.

17
18 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.28.**

19 A. Schedule F1.28 contains the classified and functionalized revenue requirements and
20 rate base for each of the proposed combined rate schedules in UPPCO's Combined
21 Retail electric jurisdiction for the 2012 projected test year. This Schedule
22 corresponds to the COSS where Income Taxes are allocated on the basis of Net
23 Income. There is one page of information for each proposed combined rate
24 schedule. With 11 proposed combined rate schedules in UPPCO's Combined Retail
25 electric jurisdiction, Schedule F1.28 consists of 11 pages.

26
27 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.29.**

- 1 A. Schedule F1.29 contains the creation of the allocation factors utilized in the
2 Combined Retail System COSS for the 2012 projected test year, and consists of two
3 pages. There are 17 allocation factors on Page 1:
- 4 1. The Energy allocation factor, based upon total annual kWh usage,
5
 - 6 2. The Rev Decoupling – Res (i.e. Revenue Decoupling – Residential) allocation
7 factor, based upon annual kWh usage for only residential rate schedules,
8
 - 9 3. The Rev Decoupling – Sec (i.e. Revenue Decoupling – Secondary) allocation
10 factor, based upon annual kWh usage for only non-residential secondary rate
11 schedules,
12
 - 13 4. The Rev Decoupling – Prim & Trans (i.e. Revenue Decoupling – Primary &
14 Transmission) allocation factor, based upon annual kWh usage for only
15 primary and transmission rate schedules, excluding RTMP,
16
 - 17 5. The Transmission allocation factor, based upon 12-CP demands of all system
18 load,
19
 - 20 6. The Transmission O&M allocation factor, based upon 12-CP demands of all
21 system load, but removing demand for any AES customers,
22
 - 23 7. The Demand-Production allocation factor, based upon 12-CP demands of
24 firm load only. This allocation factor also takes into consideration a 75%/25%
25 weighting factor,
26
 - 27 8. The Demand-Distribution allocation factor, based upon 12-CP demands of
28 total system load,
29
 - 30 9. The CP Demand – Primary allocation factor, based upon 1-CP demands of
31 firm load only. This allocation factor takes into consideration load at the
32 primary voltage level,
33
 - 34 10. The CP Demand – Secondary allocation factor, based upon 1-CP demands
35 of firm load only. This allocation factor takes into consideration load at the
36 secondary voltage level and also incorporates a street lighting weighting
37 factor,
38
 - 39 11. The Non-Coincident Demand allocation factor, based upon 12-NCP demands
40 of all system load,
41
 - 42 12. The Customer Max Acct 368 allocation factor, based upon 1-NCP demands
43 of all system load. This allocation factor takes into consideration load at the
44 primary voltage level and also incorporates a Transformer Cost per kW
45 weighting factor,
46
 - 47 13. The Customer allocation factor, based upon total annual number of
48 customers,
49
 - 50 14. The Acct 364 Primary – Customer allocation factor, based upon total annual
51 number of customers served at the primary voltage level. This allocation

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factor also incorporates a street lighting weighting factor,

- 15. The Acct 365/367 Primary – Customer allocation factor, based upon total annual number of customers served at the primary voltage level. This allocation factor also incorporates a street lighting and three-phase weighting factor,
- 16. The Acct 364 Secondary – Customer allocation factor, based upon total annual number of customers served at the secondary voltage level. This allocation factor also incorporates a street lighting weighting factor, and
- 17. The Acct 365/367 Secondary – Customer allocation factor, based upon total annual number of customers served at the secondary voltage level. This allocation factor also incorporates a street lighting and three-phase weighting factor.

The allocation factors found on Page 2 are comprised of eight allocation factors:

- 1. The Customer Services & Sales allocation factor, based upon kWh usage of each rate schedule weighted for the customer service labor and non-labor costs associated various customer rate classes,
- 2. The Customer Acct 368 allocation factor, based upon average bill count of customers served at primary voltage level with the exception of utilizing average lamp counts, rather than customer counts, for the lighting rate schedules. This allocation factor also takes into consideration a Transformer Cost per Customer weighting factor,
- 3. The Acct 369 – Services allocation factor, based upon average bill count of customers served at secondary voltage level, taking into consideration a weighting factor for Cost per Customer for Service Lines,
- 4. The Meters allocation factor, based upon average bill count of all customers, taking into consideration a weighting factor for Cost per Customer for Meters,
- 5. The Customer – Lamps allocation factor, based upon total annual lamp counts,
- 6. The Acct 904 allocation factor, based upon 2009 historic test year uncollectible expense by rate schedule,
- 7. The Salaries & Wages – Functional allocation factor, based upon salaries and wages expense by function, and
- 8. The Salaries & Wages – Rate Schedule allocation factor, based upon the functional expense, as shown in Salaries & Wages – Functional, allocated to each of the rate schedules with the respective allocation methodology.

Q. Can you please describe how the loss factors shown in Ex. A-6 (JCHM-1), Schedule F1.29 are used in the development of the allocator factors?

1 A. The metered data UPPCO uses (i.e. energy and demands) for allocation factors is at
2 the customer level, while the known system load is at generation level. Losses
3 account for the difference between the generation level and the customer level data,
4 therefore loss factors are applied against the metered data to account for the losses
5 and to arrive at a generation level.

6

7 There are different loss factors for energy and demand, as well as different loss
8 factors for customers served at the Transmission, Primary and Secondary voltages.
9 Each rate schedules' metered energy and demands are grossed up by the
10 respective loss factor in order to assign the losses to the correct rate schedules. For
11 example, Transmission voltage customers only have transmission losses applied to
12 their energy and demands, while Primary voltage customers have both transmission
13 losses and primary losses applied to their energy and demands.

14

15 **Q. Can you please explain the significance of the far right column labeled**
16 **“Source or Allocation Factor” on each page of Ex. A-6 (JCHM-1), Schedule**
17 **F1.29?**

18 A. The far right column labeled “Source or Allocation Factor” represents the name that
19 was given to each of the specific allocators created within Schedule F1.29. Each of
20 these names shown in the “Source or Allocation Factor” column is what is used
21 throughout the COSS in Ex. A-6 (JCHM-1), Schedule F1.27 when referencing the
22 allocation methodology that was used to allocate costs to the rate schedules.

23

24 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.30.**

25 A. Schedule F1.30 consists of one page and contains the analysis behind the creation
26 of the Cost per Customer for Service Lines weighting factor utilized in the creation of
27 Acct 369 – Services allocation factor. The data is based upon actual plant

1 investment by rate schedule as of December 31, 2010.

2

3 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.31.**

4 A. Schedule F1.31 consists of one page and contains the analysis behind the creation
5 of the Cost per Customer for Meters weighting factor utilized in the creation of Meters
6 allocation factor. The data is based upon actual plant investment by rate schedule
7 as of December 31, 2010.

8

9 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.32.**

10 A. Schedule F1.32 contains the classification and functionalization of Combined Retail
11 System data for the 2012 projected test year. Schedule F1.32 consists of five pages.

12

13 Page 1 contains a detailed breakdown of the classification and functionalization of
14 Plant-in-Service, with General investment apportioned. Direct allocations were made
15 whenever possible. This page also portrays the classification and functionalization of
16 Plant Accounts 364, 365, and 367 amongst Primary, Secondary, Street Lighting,
17 General Lighting, and Private Lighting, as well as the Customer and Demand
18 functions. These classified and functionalized values are utilized and allocated to the
19 rate schedules as shown in Ex. A-6 (JCHM-1), Schedule F1.27, page 7.

20

21 Page 2 contains a detailed breakdown of the classification and functionalization of
22 Accumulated Depreciation – Straight Line, with General investment apportioned.
23 Direct allocations were made whenever possible. This page also portrays the
24 classification and functionalization of Plant Accounts 364, 365, and 367 amongst
25 Primary, Secondary, Street Lighting, General Lighting, and Private Lighting, as well
26 as the Customer and Demand functions. These classified and functionalized values
27 are utilized and allocated to the rate schedules as shown in Ex. A-6 (JCHM-1),

1 Schedule F1.27, page 8.

2

3 Page 3 contains a detailed breakdown of the classification and functionalization of
4 CWIP, with General investment apportioned. Direct allocations were made
5 whenever possible. This page also portrays the classification and functionalization of
6 Plant Accounts 364, 365, and 367 amongst Primary, Secondary, Street Lighting,
7 General Lighting, and Private Lighting, as well as the Customer and Demand
8 functions. These classified and functionalized values are utilized and allocated to the
9 rate schedules as shown in Ex. A-6 (JCHM-1), Schedule F1.27, page 9.

10

11 Page 4 contains a detailed breakdown of the classification and functionalization of
12 Depreciation Expense, with General expense apportioned. Direct allocations were
13 made whenever possible. This page also portrays the classification and
14 functionalization of Plant Accounts 364, 365, and 367 amongst Primary, Secondary,
15 Street Lighting, General Lighting, and Private Lighting, as well as the Customer and
16 Demand functions. These classified and functionalized values are utilized and
17 allocated to the rate schedules as shown in Ex. A-6 (JCHM-1), Schedule F1.27, page
18 4.

19

20 Page 5 contains a detailed breakdown of the classification and functionalization of
21 O&M Expense, including A&G expense. Direct allocations were made whenever
22 possible. This page also portrays the classification and functionalization of Plant
23 Accounts 364, 365, and 367 amongst Primary, Secondary, Street Lighting, General
24 Lighting, and Private Lighting, as well as the Customer and Demand functions.
25 These classified and functionalized values are utilized and allocated to the rate
26 schedules as shown in Ex. A-6 (JCHM-1), Schedule F1.27, page 3.

27

1 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.33.**

2 A. Schedule F1.33 consists of one page and contains the computations behind the
3 translation of O&M FERC Distribution Accounts 580 through 598 to FERC Plant
4 Distribution Accounts 303, and 360 through 373 for the Combined Retail System for
5 the 2012 projected test year.

6

7 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.34.**

8 A. As required by the Commission's Orders dated December 23, 2008 and February
9 20, 2009 issued in Case No. U-15895, Schedule F1.34 is a summary of the COSS
10 results for the Combined Retail System for the 2012 projected test year. The
11 summary corresponds to the COSS where Income Tax is allocated on the basis of
12 Rate Base. Schedule F1.34 consists of 4 pages.

13

14 **Q. Do the four pages of the 2012 projected test year COSS shown in Schedule**
15 **F1.34 of Exhibit A-6 (JCHM-1) for the Combined Retail System where Income**
16 **Taxes are allocated on the basis of Rate Base follow the same layout as**
17 **presented in Schedule F1.26 of Exhibit A-6 (JCHM-1), which is the 2012**
18 **projected test year COSS for the Combined Retail System where Income Taxes**
19 **are allocated on the basis of Net Income?**

20 A. Yes, they do. The only differences would be the lines labeled "Income Tax" and
21 "Additional Income Tax on Return Def.", which show Income Taxes being allocated
22 to the rate schedules based upon the Rate Base allocation methodology, rather than
23 being allocated upon Net Income, which is shown in Schedule F1.26. This difference
24 in allocation methodology affects the values shown in Schedule F1.34, Line 44, the
25 Percent Rate of Return, and Lines 48-61, which calculate the revenue deficiency by
26 rate class, as compared to these items shown in Schedule F1.26.

27

1 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.35.**

2 A. Schedule F1.35 is a detailed summary of the COSS results for the Combined Retail
3 System for the 2012 projected test year where Income Tax is allocated on the basis
4 of Rate Base. Schedule F1.35 consists of one page.

5

6 **Q. Is Schedule F1.35 of Exhibit A-6 (JCHM-1) for the Combined Retail System**
7 **where Income Taxes are allocated on the basis of Rate Base follow the same**
8 **layout as page one presented in Schedule F1.27 of Exhibit A-6 (JCHM-1), which**
9 **is the 2012 projected test year COSS for the Combined Retail System where**
10 **Income Taxes are allocated on the basis of Net Income?**

11 A. Yes, it does. The only differences would be the lines labeled "Income Tax" and
12 "Additional Income Tax on Return Def." on Schedule F1.35, which show Income
13 Taxes being allocated to the rate schedules based upon the Rate Base allocation
14 methodology, rather than being allocated upon Net Income, which is shown on page
15 one of Schedule F1.27. This difference in allocation methodology affects the values
16 shown in Schedule F1.35, Line 44, the Percent Rate of Return, and Lines 48-60,
17 which calculate the revenue deficiency by rate class, as compared to these items
18 shown in Schedule F1.27.

19

20 **Q. If Schedule F1.35 of Exhibit A-6 (JCHM-1) for the Combined Retail System**
21 **where Income Taxes are allocated on the basis of Rate Base follows the same**
22 **layout as presented in Schedule F1.27 of Exhibit A-6 (JCHM-1), which is the**
23 **2012 projected test year COSS for the Combined Retail System where Income**
24 **Taxes are allocated on the basis of Net Income, why doesn't Schedule F1.35**
25 **consist of 10 pages as does Schedule F1.27?**

26 A. The only item that changes in the COSS presented in Schedule F1.35 as compared
27 to the COSS presented in Schedule F1.27 is the allocation of Income Taxes. All

1 other allocations, costs and investments, as portrayed in pages 2-10 of Schedule
2 F1.27, remain unchanged. Therefore, there is no need to present additional
3 information beyond page one of Schedule F1.35.

4

5 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.36.**

6 A. Schedule F1.36 contains the classified and functionalized revenue requirements and
7 rate base for each of the rate schedules in UPPCO's Combined Retail electric
8 jurisdiction for the 2012 projected test year. This Schedule corresponds to the
9 COSS where Income Taxes are allocated on the basis of Rate Base. There is one
10 page of information for each rate schedule. With 11 rate schedules in UPPCO's
11 Combined Retail electric jurisdiction, Schedule F1.36 consists of 11 pages.

12

13 **Q. Do the 11 pages of the 2012 projected test year COSS shown in Schedule F1.36**
14 **of Exhibit A-6 (JCHM-1) for the Combined Retail System where Income Taxes**
15 **are allocated on the basis of Rate Base follow the same layout as presented in**
16 **Schedule F1.28 of Exhibit A-6 (JCHM-1), which is the 2012 projected test year**
17 **COSS for the Combined Retail System where Income Taxes are allocated on**
18 **the basis of Net Income?**

19 A. Yes, they do. The only differences would be on Schedule F1.36, line 23 and 36,
20 which portrays Income Taxes as allocated based upon the Rate Base allocation
21 methodology. In Schedule F1.28, line 23 and 36 portrays Income Taxes as allocated
22 based upon Net Income. This difference in allocation methodology affects the values
23 shown in Schedule F1.36, line 32, Actual Return, line 34, Return Income Deficiency,
24 line 38, Revenue Requirements, and line 40, Cost per Consumption Unit, as
25 compared to these items shown in Schedule F1.28.

26

27 **Q. Please describe Ex. A-6 (JCHM-1), Schedule F1.37.**

1 A. Schedule F1.37 contains two detailed summaries corresponding to a third and fourth
2 COSS for the Combined Retail System for the 2012 projected test year portraying a
3 zero revenue deficiency. Schedule F1.37 consists of two pages. Page 1 reflects the
4 detailed summary of the Combined Retail System 2012 COSS that portrays Income
5 Taxes being allocated to the rate schedules based upon the Net Income allocation
6 methodology, and also portrays a zero revenue deficiency. Page 2 reflects the
7 detailed summary of the Combined Retail System 2012 COSS that portrays Income
8 Taxes being allocated to the rate schedules based upon the Rate Base allocation
9 methodology, and also portrays a zero revenue. This is being provided at the
10 request of MPSC Staff.

11

12 **Q. In what manner has the two COSS detailed summaries shown in Schedule**
13 **F1.37 been able to portray a zero revenue deficiency?**

14 A. One can see by viewing the two pages of Schedule F1.37, an adjustment has been
15 made at line 4 of each page. This adjustment corresponds to the change that would
16 be required in order to arrive at a zero revenue deficiency, on a rate schedule basis,
17 for the Combined Retail System for the 2012 projected test year, while keeping Tariff
18 Revenues at Present Rates unchanged.

19

20 **Q. How does the detailed summary presented in Ex. A-6 (JCHM-1), Schedule**
21 **F1.27 differ from that presented in page one of Schedule F1.37?**

22 A. The only difference one would see on page one of Schedule F1.37 as compared to
23 Schedule F1.27 (i.e. Combined Retail System 2012 COSS that portrays Income
24 Taxes being allocated to the rate schedules based upon the Net Income allocation
25 methodology) is that there is now an adjustment made at line 4 corresponding to the
26 change that would be required in order to arrive at a zero revenue deficiency.
27 Because of the adjustment made at line 4, there is a change to the amount of Net

1 Income by rate schedule, and therefore the allocation of Income Taxes to the rate
2 schedules also changes when comparing Schedule F1.37 to Schedule F1.27.
3 Lastly, the Percent Rate of Return shown on page one of Schedule F1.37 portrays
4 the Required Rate of Return for each of the rate schedules, as compared to
5 Schedule F1.27, because this COSS portrays a zero revenue deficiency.

6

7 **Q. How does the detailed summary presented in Ex. A-6 (JCHM-1), Schedule**
8 **F1.35 differ from that presented in page two of Schedule F1.37?**

9 A. The only difference one would see on page two of Schedule F1.37 as compared to
10 Schedule F1.35 (i.e. Combined Retail System 2012 COSS that portrays Income
11 Taxes being allocated to the rate schedules based upon the Rate Base allocation
12 methodology) is that there is now an adjustment made at line 4 corresponding to the
13 change that would be required in order to arrive at a zero revenue deficiency.
14 Because of the adjustment made at line 4, there is a change to the amount of Net
15 Income by rate schedule. Lastly, the Percent Rate of Return shown on page two of
16 Schedule F1.37 portrays the Required Rate of Return for each of the rate schedules,
17 as compared to Schedule F1.35, because this COSS portrays a zero revenue
18 deficiency.

19

20 **Q. Are Exhibits A-6 (JCHM-1) Schedule F1.34, Schedule F1.35, Schedule F1.36,**
21 **and Schedule F1.37 the only Combined Retail COSS exhibits for the projected**
22 **2012 test year that change due to the different method of allocating Income**
23 **Taxes?**

24 A. Yes, they are. All other allocation methodologies, supplementary analyses, and the
25 Functionalization and Classification of costs and investments remain the same when
26 comparing the two COSS.

27

1 **Allocation Method for Income Taxes**

2 **Q. Why has UPPCO chosen to provide two separate COSS for each of the**
3 **Integrated Retail, Iron River Retail and Combined Retail Systems for the 2012**
4 **projected test year?**

5 A. UPPCO has provide two separate COSS for each of the Integrated Retail, Iron River
6 Retail and Combined Retail Systems for the 2012 projected test year: one COSS
7 provides the revenue deficiency by rate schedule where Income Taxes are allocated
8 to the rate schedules upon the basis of Net Income, the other COSS provides the
9 revenue deficiency by rate schedule where Income Taxes are allocated to the rate
10 schedules upon the basis of Rate Base. The COSS model where Income Taxes are
11 allocated upon the basis of Net Income is required to be filed by UPPCO pursuant to
12 Order Point “K” of the Commission’s December 21, 2010 Order Approving
13 Settlement Agreement in Case No. U-16166. UPPCO has chosen to file a second
14 COSS model where Income Taxes are allocated upon the basis of Rate Base and
15 proposes that the MPSC adopt this allocation methodology as it better allocates
16 Income Tax expense to customers based on cost causation and provides stability
17 within the allocation.

18
19 **Q. Please explain how the Rate Base allocation method is calculated.**

20 A. The Rate Base allocation method is based off of the sum of UPPCO’s rate base
21 items, as they are allocated to the rate schedules. Rate Base items include: Plant-
22 in-Service, Accumulated Depreciation - S/L, CWIP, Fuel Stock, Working Capital,
23 Materials & Supplies and any associated Deferred Taxes, Electric Prepayments,
24 Cash & Bank Balances, Electric Property, Payroll and Income Taxes Accrued, Net
25 Plant Acquisition Adjustment, and Customer Advances and any associated Deferred
26 Taxes. The Rate Base allocation method is created on page one of the following
27 Exhibits for the 2012 projected test year: A-6 (JCHM-1), Schedules F1.2, F1.13,

1 F1.16, F1.24, F1.27, and F1.35. It is also shown on page 2 of A-6 (JCHM-1),
2 Schedule F1.37.

3

4 **Q. Please explain how the Net Income allocation method is calculated.**

5 A. The Net Income allocation method is based off of each rate schedules' Total
6 Revenues, both Tariff Revenues at Present Rates along with allocated
7 miscellaneous other revenues, less the following Operating Expenses: O&M
8 Expense, including A&G, Depreciation Expense, including Amortizations, TOTIT, and
9 any Income and Other Adjustments. The Net Income allocation method is created
10 on page one of the following Exhibits for the 2012 projected test year: A-6 (JCHM-
11 1), Schedules F1.2, F1.16, and F1.27 . It is also shown on page 1 of A-6 (JCHM-1),
12 Schedule F1.37.

13

14 **Q. Why were Income Taxes not included as part of the Operating Expenses that**
15 **are removed from Total Revenues when calculating the Net Income allocation**
16 **method?**

17 A. While Income Taxes are typically considered part of Operating Expenses, they
18 needed to be excluded from the calculation when creating the Net Income allocation
19 methodology, because the Net Income allocation method is being constructed solely
20 for the purpose of allocating Income Taxes to the rate schedules. One cannot
21 calculate a Net Income amount that is inclusive of Income Taxes without first
22 allocating Income Taxes to the rate schedules, yet one cannot allocate Income
23 Taxes to the rate schedules without first creating the Net Income allocation
24 methodology. This proposes an issue of the equations being circular.

25

26 **Q. What do you mean by the term "circular"?**

1 A. The term circular is meant to state that you cannot calculate an equation without first
2 having one of its components calculated, and yet you cannot calculate that
3 component without having the answer to the equation. For example:

$$4 \quad \text{Equation : } A = B - C$$

$$\text{Where : } B = A \times D$$

5 In this type of circular equation, one cannot compute the answer to A, without first
6 computing what the variable B is. Yet you cannot calculate what the variable B is
7 without first knowing what A is. This is a very simplistic example of what the term
8 “circular” means. The circular nature that would occur within the COSS is more
9 complex considering the large number of variables in the equation, along with the
10 allocation being based upon multiple rate schedules. Therefore, to circumvent the
11 issue of circularity, the Net Income allocation method does not include Income Tax
12 Expense in the calculation.

13

14 **Q. Is there any disadvantage to using a Net Income allocation method calculated**
15 **in this manner?**

16 A. Yes, there is. In theory, the Net Income allocation method, when calculated properly,
17 should produce very similar results as the Rate Base allocation method, because
18 Income Taxes are a function of Rate Base. But, due to the issue of circularity,
19 UPPCO believes the calculation of Net Income, as described above, does not
20 provide an accurate basis for allocating Income Taxes nor does it produce results
21 that are similar to a Rate Base allocation method. Also, and most importantly, the
22 theory only holds true in a “perfect world” scenario, i.e. when working under the
23 assumption that all rate schedules are portraying a net income that is reflective of a
24 zero revenue deficiency. Because UPPCO is showing a revenue deficiency, and
25 each of the rate schedules in the COSS are showing a revenue deficiency/excess,

1 the theory cannot be proven through the COSS itself, and, therefore, can only be
2 proven through use of algebraic formulas.

3

4 **Q. Can you show, through the use of algebraic formulas, that Income Taxes are a**
5 **function of Rate Base, thereby proving in theory that a Net Income allocation**
6 **method and a Rate Base allocation method are similar?**

7 A. Yes, I can. I will provide, through the use of algebraic formulas representing
8 UPPCO's revenue requirements, net taxable income, and income taxes, that Income
9 Taxes are a function of Rate Base, thereby proving in theory that a Net Income
10 allocation method and a Rate Base allocation method are similar.

11

12 The following represents the formula, both on a system-wide basis, as well as on a
13 rate schedule basis, for Revenue Requirements:

14

$$RR = (RB * r) + OE + IT$$

15

Where:

16

RR = Revenue Requirements

17

RB = Rate Base, as determined by COSS

18

r = Allowed Rate of Return

19

OE = O&M Expense as determined by COSS (excluding Income Taxes)

IT = allowable Federal and State Income Taxes, as determined by the COSS

20

21 The following represents the formula, both on a system-wide basis, as well as on a
22 rate schedule basis for Net Taxable Income:

23

$$NTI = RR - OE$$

24

Where:

25

NTI = Net Taxable Income

26

RR = Revenue Requirements

27

OE = O&M Expense as determined by COSS (excluding Income Taxes)

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When substituting the algebraic equation for Revenue Requirements (RR) into the Net Taxable Income (NTI) equation, it results in the following:

$$NTI = RR - OE \quad \text{and} \quad RR = (RB * r) + OE + IT$$

Therefore:

$$NTI = ((RB * r) + OE + IT) - OE$$
$$NTI = (RB * r) + IT$$

Where:

- NTI** = Net Taxable Income
- RB** = Rate Base, as determined by COSS
- r** = Allowed Rate of Return
- IT** = allowable Federal and State Income Taxes, as determined by the COSS

Note that as long as the Depreciation Expense included in Operating Expenses (OE) represents book depreciation, the Net Taxable Income (NTI) formula above holds true.

The following represents the formula, both on a system-wide basis, as well as on a rate schedule basis for Income Taxes:

$$IT = k * NTI$$

Where:

- IT** = allowable Federal and State Income Taxes, as determined by the COSS
- k** = fixed percentage of Income
- NTI** = Net Taxable Income

The Income Taxes (IT) are a fixed proportion, k, of the Net Taxable Income (NTI), and would be representative of both temporary and permanent timing differences between book income and taxable income. Given this assumption, it then follows that both the Net Taxable Income (NTI) and the Income Taxes (IT) by rate schedule, as determined by the COSS, are a fixed proportion of the Rate Base (RB). This can

1 be shown through algebraic substitution using the Net Taxable Income (NTI) formula
2 above and substitution of Income Taxes (IT):

3
$$NTI = (RB * r) + IT \quad \text{and} \quad IT = k * NTI$$

4

5 Therefore:

6
$$NTI = (RB * r) + (k * NTI)$$

7
$$NTI - (k * NTI) = (RB * r)$$

8
$$NTI * (1 - k) = (RB * r)$$

9
$$NTI = (RB * r) / (1 - k)$$

10 Hence, Net Taxable Income is a fixed portion of Rate Base because r and k represent fixed variables (allowed rate of return and a fixed percentage of income, respectively)

11

12 The reverse also holds true: through algebraic substitution using the Income Taxes
13 (IT) formula above and substitution of Net Taxable Income (NTI), one sees the
14 following:

15
$$IT = k * NTI \quad \text{and} \quad NTI = (RB * r) + IT$$

16

17 Therefore:

18
$$IT = k * ((RB * r) + IT)$$

19
$$IT = (k * (RB * r)) + (k * IT)$$

20
$$IT - (k * IT) = (k * RB * r)$$

21
$$IT(1 - k) = (k * RB * r)$$

22
$$IT = (k * RB * r) / (1 - k)$$

23 Hence, Income Taxes are a fixed portion of Rate Base because r and k represent fixed variables (allowed rate of return and a fixed percentage of income, respectively)

24 **Q. Does UPPCO disagree that Net Taxable Income is an appropriate method to**
25 **allocate Income Taxes?**

26 A. No, UPPCO does not disagree that, in theory, Net Taxable Income is an acceptable
27 allocation method to allocate Income Taxes in a COSS to the rate schedules, but

1 only if Net Taxable Income is calculated correctly. As stated above, Net Taxable
2 Income is only an acceptable and accurate method to allocate Income Taxes when
3 each rate schedule's revenues are fully recovering their allocated cost of service, i.e.
4 only in a "perfect world" scenario where each rate schedule portrays a zero revenue
5 deficiency. Because each of the rate schedules in the COSS are showing a revenue
6 deficiency/excess, the use of a Net Income allocation method created within the
7 COSS itself is not an accurate method. When using a Net Income allocation method
8 that utilizes revenues that are not fully recovering a rate schedule's cost of service,
9 the issue of rate skewing and cross-subsidization becomes readily apparent.

10

11 **Q. Can you provide an example of the rate skewing and cross-subsidization that**
12 **is occurring through the use of the Net Income allocation method?**

13 A. Yes, I can. The issue of rate skewing and cross-subsidization can easily be seen in
14 the Iron River Retail System, where current rates are not close to cost of service.
15 The two COSS for the Iron River Retail System for the 2012 projected test year can
16 be seen in Exhibit A-6 (JCHM-1), Schedule F1.16 and Schedule F1.24, for the COSS
17 where Income Taxes are allocated on the Net Income approach and the Rate Base
18 approach, respectively. When examining Schedule F1.16, page 1, where Income
19 Taxes are allocated on the basis of Net Income, one can see at line 15 the creation
20 of the Net Income allocation method and the large range of allocations to the rate
21 schedules: negative 125.55% for A-2, and positive 139.59% for P-2. The reason
22 why rate schedule A-2 is showing a negative 125.55% allocation is because they are
23 showing a Net Operating Income Loss, rather than Net Operating Income. The
24 consequence of using the Net Income allocation method to allocate Income Taxes
25 has the affect of allocating effectively an Income Tax "credit", rather than "expense",
26 to the rate classes that are showing a Net Operating Loss in the COSS (i.e. A-2 and
27 CP-U rate schedules for Iron River Retail System), which in turn reduces their overall

1 Revenue Deficiency. At the same time, the rate classes that are showing a Net
2 Operating Income in the COSS are receiving an allocation of Income Tax Expense –
3 based on a disproportionately larger share of Income Tax Expense such that it
4 covers the subsidization of an Income Tax “credit” that is being allocated to the rate
5 classes that are showing a Net Operating Loss.

6
7 This does not occur in the COSS where Income Taxes are allocated on the basis of
8 Rate Base. In Schedule F1.24, which is the COSS where Income Taxes are
9 allocated on the basis of Rate Base, at page 1, line 41, one can see the creation of
10 the Rate Base allocation method. By viewing the allocation method, one can see
11 that there is never an instance, nor will there ever be an instance, where a rate
12 schedule can be allocated a “negative” amount of Rate Base. The range of
13 allocations to the rate schedules are also much more moderated, ranging from
14 37.57% for A-2 to 0.91% for H-2. These values are reflective of the amount of
15 assets, or Rate Base, each rate schedule utilizes, and therefore, are reflective the
16 proportion of earnings that UPPCO should be receiving from each respective rate
17 schedule.

18
19 **Q. Is there anything further that you would like to bring attention to when**
20 **comparing the two COSS?**

21 A. Yes, I would like to note that use of the Net Income allocation method to allocate
22 Income Taxes, which is incorporated into Ex. A-6 (JCHM-1), Schedule F1.17,
23 consequentially produces larger cost-based fixed charges for those rate schedules
24 showing a Net Operating Income than the use of the Rate Base allocation method to
25 allocate Income Taxes, which is incorporated into Ex. A-6 (JCHM-1), Schedule
26 F1.25. As shown in the table below, rate schedules A-2, CP-U, and Z-4 for the Iron
27 River System, show a lower fixed charge in the COSS where Income Taxes are

1 allocated on the basis of Net Income, and the remaining rate schedules have higher
 2 fixed charges.

| | Ex. A-6 (JCHM-1), Schedule F1.17 Fixed Charge | Ex. A-6 (JCHM-1), Schedule F1.25 Fixed Charge | |
|-----------------|--|--|---|
| | Income Taxes allocated using Net Income | Income Taxes allocated using Rate Base | % Difference: Net Income to Rate Base |
| A-2 | \$33.58 | \$39.00 | (16.15%) |
| AH-2 | \$46.93 | \$41.21 | 12.18% |
| C-2 | \$50.40 | \$40.67 | 19.30% |
| H-2 | \$58.35 | \$38.96 | 33.23% |
| P-2 | \$123.03 | \$66.61 | 45.86% |
| CP-U | \$54.03 | \$143.53 | (165.63%) |
| Street Lighting | \$45.51 | \$40.67 | 10.63% |
| Z-4 | \$4.59 | \$4.86 | (5.89%) |

3

4 **Q. Please explain why the Rate Base allocation method is more appropriate to**
 5 **better allocate Income Tax expense to the rate schedules than the Net Income**
 6 **allocation methodology.**

7 A. I have already discussed above the drawbacks of utilizing the Net Income allocation
 8 method, as calculated within the COSS, which in and of itself, is reason enough to
 9 not advocate the Net Income allocation method. I have also discussed and shown
 10 through algebraic formulas above, that both Net Taxable Income (“NTI”) and Income
 11 Taxes (“IT”) are a function of fixed variables and Rate Base (“RB”). The computation
 12 of the amount of revenue required for UPPCO is significantly related to the amount of
 13 UPPCO’s Rate Base and is calculated by multiplying the allowed rate of return by the
 14 amount of Rate Base. Since UPPCO’s Income Taxes are a function of its earnings,
 15 using Rate Base is an appropriate method to allocate Income Tax and more
 16 accurately allocates costs based on causation than use of the Net Income allocator
 17 because Net Income does not necessarily portray the actual cost to serve
 18 customers. Especially in the current instance with UPPCO, where customers are
 19 currently being undercharged/overcharged, UPPCO is showing a revenue

1 deficiency/excess, and therefore certain rate schedules have artificially low present
2 revenues. As shown above, in using Net Income as the allocation method for
3 Income Taxes, the rate schedules that show an artificially low Net Income are
4 allocated an artificially low amount of income taxes and the remaining rate schedules
5 are burdened with disproportionate over-allocation of income taxes. Therefore use
6 of the Net Income allocation method for UPPCO is inappropriate, and there is sound
7 rationale that Rate Base is the appropriate cost causation allocation method for
8 Income Taxes. Lastly, as stated earlier in my pre-filed direct testimony, in evaluating
9 any cost allocation methodology, appropriate consideration should be given to
10 whether it provides a sound rationale or theoretical basis, whether the results reflect
11 cost causation and are representative of the costs of serving different types of
12 customers, as well as the stability of the results over time. The Rate Base allocation
13 method provides for all of these considerations and therefore is the most appropriate
14 method to allocate Income Taxes in UPPCO's COSS.

15
16 **Integrated Retail System 2010 COSS**

17 **Q. Please describe Exhibit A-16 (JCHM-2), Schedule F1.1.**

18 A. As required by the Commission's Orders dated December 23, 2008 and February
19 20, 2009 issued in Case No. U-15895, Schedule F1.1 is a summary of the COSS
20 results for the Integrated Retail System for the 2010 historic test year. The summary
21 corresponds to the COSS where Income Tax is allocated on the basis of Net Income.
22 Each page summarizes the various components of the operating income and rate
23 base to the jurisdictions, rate classes and rate schedules. Additionally, the pages
24 present revenue deficiency and revenue requirement by jurisdictions, rate classes
25 and rate schedule. Schedule F1.1 consists of 4 pages.

26
27 **Q. Please describe Ex. A-16 (JCHM-2), Schedule F1.2.**

28 A. Schedule F1.2 is a detailed summary of the COSS results for the Integrated Retail

1 System for the 2010 historic test year where Income Tax is allocated on the basis of
2 Net Income. Within Schedule F1.2, each rate schedule is presented in a side-by-
3 side, columnar format, the details of each component of operating income and rate
4 base are presented, and the allocation methodology that was used to allocate the
5 costs and plant investment are provided in Column [B] of each page. Schedule F1.2
6 consists of 10 pages.

7

8 **Q. Do the 10 pages of the 2010 historic test year COSS shown in Schedule F1.2 of**
9 **Exhibit A-16 (JCHM-2) for the Integrated Retail System follow the same layout**
10 **as presented in Schedule F1.2 of Exhibit A-6 (JCHM-1) for the 2012 projected**
11 **test year?**

12 A. Yes, they do. The only differences would be on Page 1, Line 45, which shows the
13 Index of Return resulting from historical operations. Also, Line 59 of page 1 shows
14 the revenue deficiency by rate class based upon the required rate of return of 10.9%,
15 which was authorized in UPPCO's general rate case in Case No. U-15988, which
16 was in effect throughout 2010.

17

18 **Q. Please describe Ex. A-16 (JCHM-2), Schedule F1.3.**

19 A. Schedule F1.3 contains the classified and functionalized revenue requirements and
20 rate base for each of the rate schedules in UPPCO's Integrated Retail electric
21 jurisdiction for the 2010 historic test year. This Schedule corresponds to the COSS
22 where Income Taxes are allocated on the basis of Net Income. There is one page of
23 information for each rate schedule. With 11 rate schedules in UPPCO's Integrated
24 Retail electric jurisdiction, Schedule F1.3 consists of 11 pages.

25

26 **Q. Do the 11 pages of classified and functionalized revenue requirements and**
27 **rate base for each of the rate schedules for the 2010 historic test year shown in**

1 **Schedule F1.3 of Exhibit A-16 (JCHM-2) for the Integrated Retail System follow**
2 **the same layout as presented in Schedule F1.3 of Exhibit A-6 (JCHM-1) for the**
3 **2012 projected test year?**

4 A. Yes, they do.

5

6 **Q. Please describe Ex. A-16 (JCHM-2), Schedule F1.4.**

7 A. Schedule F1.4 contains the creation of allocation factors utilized in the Integrated
8 Retail System COSS for the 2010 historic test year, and consists of two pages.

9

10 **Q. Do the two pages of allocation factors the 2010 historic test year COSS shown**
11 **in Schedule F1.4 of Exhibit A-16 (JCHM-2) for the Integrated Retail System**
12 **follow the same layout as presented in Schedule F1.4 of Exhibit A-6 (JCHM-1)**
13 **for the 2012 projected test year?**

14 A. Yes, they do.

15

16 **Q. Please describe Ex. A-16 (JCHM-2), Schedule F1.5.**

17 A. Schedule F1.5 contains the classification and functionalization of Integrated Retail
18 System data for the 2010 historic test year. Schedule F1.5 consists of five pages.

19

20 **Q. Do the five pages of classified and functionalized 2010 historic test year data**
21 **shown in Schedule F1.5 of Exhibit A-16 (JCHM-2) for the Integrated Retail**
22 **System follow the same layout as presented in Schedule F1.7 of Exhibit A-6**
23 **(JCHM-1) for the 2012 projected test year?**

24 A. Yes, they do.

25

26 **Q. Please describe Ex. A-16 (JCHM-2), Schedule F1.6.**

27 A. Schedule F1.6 consists of one page and contains the computations behind the

1 translation of O&M FERC Distribution Accounts 303, and 580 through 598 to FERC
2 Plant Distribution Accounts 303, and 360 through 373 for the Integrated Retail
3 System for the 2010 historic test year.

4

5 **Iron River Retail System 2010 COSS**

6 **Q. Please describe Exhibit A-16 (JCHM-2), Schedule F1.7.**

7 A. As required by the Commission's Orders dated December 23, 2008 and February
8 20, 2009 issued in Case No. U-15895, Schedule F1.7 is a summary of the COSS
9 results for the Iron River Retail System for the 2010 historic test year. The summary
10 corresponds to the COSS where Income Tax is allocated on the basis of Net Income.
11 Each page summarizes the various components of the operating income and rate
12 base to the jurisdictions, rate classes, and rate schedules. Additionally, each page
13 presents revenue deficiency and revenue requirement by jurisdiction, rate class and
14 rate schedule. Schedule F1.7 consists of 3 pages.

15

16 **Q. Please describe Ex. A-16 (JCHM-2), Schedule F1.8.**

17 A. Schedule F1.8 is a detailed summary of the COSS results for the Iron River Retail
18 System for the 2010 historic test year where Income Tax is allocated on the basis of
19 Net Income. Within Schedule F1.8, each rate schedule is presented in a side-by-
20 side, columnar format, the details of each component of operating income and rate
21 base are presented, and the allocation methodology that was used to allocate the
22 costs and plant investment are provided in Column [B] of each page. Schedule F1.8
23 consists of 10 pages.

24

25 **Q. Do the 10 pages of the 2010 historic test year COSS shown in Schedule F1.8 of**
26 **Exhibit A-16 (JCHM-2) for the Iron River Retail System follow the same layout**
27 **as presented in Schedule F1.16 of Exhibit A-6 (JCHM-1) for the 2012 projected**
28 **test year?**

1 A. Yes, they do. The only differences would be on Page 1, Line 45, which shows the
2 Index of Return resulting from the historical results of operation. Also, Line 57 of
3 page 1 shows the revenue deficiency by rate class to achieve the required rate of
4 return of 10.9%, which was authorized in UPPCO's general rate case in Case No. U-
5 15988, which was in effect throughout 2010.

6

7 **Q. Please describe Ex. A-16 (JCHM-2), Schedule F1.9.**

8 A. Schedule F1.9 contains the classified and functionalized revenue requirements and
9 rate base for each of the rate schedules in UPPCO's Iron River Retail electric
10 jurisdiction for the 2010 historic test year. This Schedule corresponds to the COSS
11 where Income Taxes are allocated on the basis of Net Income. There is one page of
12 information for each rate schedule. With eight rate schedules in UPPCO's Iron River
13 Retail electric jurisdiction, Schedule F1.9 consists of eight pages.

14

15 **Q. Do the eight pages of functionalized revenue requirement and rate base**
16 **allocation for each of the rate schedules for the 2010 historic test year shown**
17 **in Schedule F1.9 of Exhibit A-16 (JCHM-2) for the Iron River Retail System**
18 **follow the same layout as presented in Schedule F1.17 of Exhibit A-6 (JCHM-1)**
19 **for the 2012 projected test year?**

20 A. Yes, they do.

21

22 **Q. Please describe Ex. A-16 (JCHM-2), Schedule F1.10.**

23 A. Schedule F1.10 contains the creation of the allocation factors utilized in the Iron
24 River Retail System COSS for the 2010 historic test year, and consists of two pages.

25

26 **Q. Do the two pages of allocation factors the 2010 historic test year COSS shown**
27 **in Schedule F1.10 of Exhibit A-16 (JCHM-2) for the Iron River Retail System**

1 follow the same layout as presented in Schedule F1.18 of Exhibit A-6 (JCHM-1)
2 for the 2012 projected test year?

3 A. Yes, they do.

4

5 **Q. Please describe Ex. A-16 (JCHM-2), Schedule F1.11.**

6 A. Schedule F1.11 contains the classification and functionalization of Iron River Retail
7 System data for the 2010 historic test year. Schedule F1.11 consists of five pages.

8

9 **Q. Do the five pages of classified and functionalized 2010 historic test year data**
10 **shown in Schedule F1.11 of Exhibit A-16 (JCHM-2) for the Iron River Retail**
11 **System follow the same layout as presented in Schedule F1.21 of Exhibit A-6**
12 **(JCHM-1) for the 2012 projected test year?**

13 A. Yes, they do.

14

15 **Q. Please describe Ex. A-16 (JCHM-2), Schedule F1.12.**

16 A. Schedule F1.12 consists of one page and contains the computations behind the
17 translation of O&M FERC Distribution Accounts 303, and 580 through 598 to FERC
18 Plant Distribution Accounts 303, and 360 through 373 for the Iron River Retail
19 System for the 2010 historic test year.

20

21 **Conclusion**

22 **Q. Please summarize the results of the COSS for the Integrated Retail System for**
23 **the 2012 projected test year.**

24 A. As stated by UPPCO witness Mr. Seth S. DeMerritt in his pre-filed direct testimony,
25 the Integrated Retail System, overall, is showing a revenue deficiency (cost recovery
26 shortfall) of \$6,439,861, or 6.97% in the 2012 projected test year. The results of the
27 COSS with respect to revenue deficiency at present rates by customer class and
28 based upon on the requested revenue requirement for UPPCO's Integrated Retail

1 System are summarized below.

| Integrated System Rate Schedule | Income Taxes allocated using Net Income | | Income Taxes allocated using Rate Base | |
|------------------------------------|--|---------|---|---------|
| | Revenue Deficiency / (Surplus) | | Revenue Deficiency / (Surplus) | |
| | \$ | % | \$ | % |
| A-1 | 5,028,158 | 11.99% | 7,124,454 | 16.99% |
| AH-1 | 413,509 | 7.89% | 449,331 | 8.57% |
| C-1 | 239,088 | 2.32% | -279,714 | -2.71% |
| H-1 | -46,878 | -3.66% | -183,395 | -14.31% |
| P-1 | 326,309 | 2.65% | -227,347 | -1.84% |
| CP-U Total | 325,252 | 1.95% | -450,119 | -2.70% |
| RTMP | -59,079 | -20.26% | -127,761 | -43.81% |
| WP-3 | -42,974 | -1.72% | -208,309 | -8.34% |
| Schedule A | 0 | 0 | 0 | 0 |
| Street Lighting | 155,881 | 11.10% | 187,507 | 13.35% |
| Z-3 | 100,598 | 27.40% | 155,215 | 42.28% |

2

3

4 **Q. In your opinion, which COSS for the Integrated Retail System provides a**
 5 **reasonable basis for establishing rates in this case?**

6 A. The COSS for UPPCO's Integrated Retail System where Income Taxes are allocated
 7 upon the basis of the Rate Base allocation method is a reasonable estimate of
 8 revenue requirements by customer class, given the total revenue requirement.

9

10 **Q. Please summarize the results of the COSS for the Iron River Retail System for**
 11 **the 2012 projected test year.**

12 A. As stated by UPPCO witness Mr. Seth S. DeMerritt in his pre-filed direct testimony,
 13 the Iron River Retail System, overall, is showing a revenue deficiency (cost recovery
 14 shortfall) of \$1,261,424, or 15.08% in the 2012 projected test year. The results of the
 15 COSS with respect to revenue deficiency at present rates by customer class and
 16 based on the requested revenue requirement for UPPCO's Iron River Retail System
 17 are summarized below.

| Income Taxes allocated using Net Income | Income Taxes allocated using Rate Base |
|--|---|
|--|---|

| Iron River Rate Schedule | Revenue Deficiency / (Surplus) | | Revenue Deficiency / (Surplus) | |
|-----------------------------|--------------------------------|--------|--------------------------------|--------|
| | \$ | % | \$ | % |
| A-2 | -24,056 | -0.75% | 752,393 | 23.37% |
| AH-2 | 80,076 | 26.73% | 18,397 | 6.14% |
| C-2 | 342,889 | 32.75% | 33,193 | 3.17% |
| H-2 | 47,367 | 49.07% | -8,599 | -8.91% |
| P-2 | 548,747 | 44.58% | -54,657 | -4.44% |
| CP-U Total | 218,219 | 9.50% | 486,603 | 21.19% |
| Street Lighting | 36,853 | 27.79% | 20,147 | 15.19% |
| Z-3 | 11,329 | 27.09% | 13,947 | 33.35% |

1

2 **Q. In your opinion, which COSS of the Iron River Retail System provides a**
3 **reasonable basis for establishing rates in this case?**

4 A. The COSS for UPPCO's Iron River Retail System where Income Taxes are allocated
5 upon the basis of the Rate Base allocation method is a reasonable estimate of
6 revenue requirements by customer class, given the total revenue requirement.

7

8 **Q. Please summarize the results of the COSS for the Combined Retail System for**
9 **the 2012 projected test year.**

10 A. The Combined Retail System, overall, is showing a revenue deficiency (cost
11 recovery shortfall) of \$7,701,288, or 7.65% in the 2012 projected test year. The
12 results of the COSS with respect to revenue deficiency at present rates by customer
13 class and based on the requested revenue requirement for UPPCO's Combined
14 Integrated Retail and Iron River Retail Systems are summarized below.

15

| Combined Retail Rate Schedule | Income Taxes allocated using Net Income | | Income Taxes allocated using Rate Base | |
|----------------------------------|--|--------|---|---------|
| | Revenue Deficiency / (Surplus) | | Revenue Deficiency / (Surplus) | |
| | \$ | % | \$ | % |
| A-3 | 5,511,390 | 12.21% | 7,859,856 | 17.41% |
| AH-3 | 447,810 | 8.08% | 460,402 | 8.31% |
| C-3 | 374,937 | 3.30% | -236,079 | -2.08% |
| H-3 | -34,065 | -2.47% | -192,674 | -13.98% |
| P-3 | 437,745 | 3.23% | -273,048 | -2.01% |
| CP-U Total | 759,875 | 4.00% | 45,818 | 0.24% |

| | | | | |
|------------------------|---------|---------|----------|---------|
| RTMP | -52,063 | -17.85% | -122,462 | -42.00% |
| WP-3 | -28,934 | -1.16% | -213,739 | -8.56% |
| Schedule A | 0 | 0 | 0 | 0 |
| Street Lighting | 175,794 | 11.44% | 205,366 | 13.36% |
| Z-5 | 108,800 | 26.61% | 167,849 | 41.05% |

1

2 **Q. In your opinion, which COSS of the Combined Retail System provides a**
3 **reasonable basis for establishing rates in this case?**

4 A. The COSS for UPPCO's Combined Retail System where Income Taxes are
5 allocated upon the basis of the Rate Base allocation method is a reasonable
6 estimate of revenue requirements by customer class, given the total revenue
7 requirement.

8

9 **Q. Are you proposing that the MPSC adopt the Rate Base allocation methodology**
10 **for allocating Income Taxes in future COSS for UPPCO?**

11 A. Yes, I am. I propose that the MPSC adopt the Rate Base allocation methodology for
12 allocating Income Taxes in UPPCO's COSS in this instant rate case proceeding, and
13 in future rate case proceedings.

14

15 **Q. Does this complete your pre-filed direct testimony?**

16 A. Yes, it does.