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Witness: Sarah L. Kliethermes
Sponsoring Party: MoPSC Staff
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Case No.: ER-2016-0023
Date Testimony Prepared: May 2, 2016

MISSOURI PUBLIC SERVICE COMMISSION
COMMISSION STAFF DIVISION
OPERATIONAL ANALYSIS DEPARTMENT

REBUTTAL TESTIMONY
OF
SARAH L. KLIETHERMES

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-2016-0023

Jefferson City, Missouri
May 2016

~~Staff~~ Exhibit No. 16
Date 6-02-16 Reporter ~~AF~~
File No. ER-2016-0023

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OF

SARAH L. KLIETHERMES

THE EMPIRE DISTRICT ELECTRIC COMPANY

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1 REBUTTAL TESTIMONY

2 OF

3 SARAH L. KLIETHERMES

4 THE EMPIRE DISTRICT ELECTRIC COMPANY

5 CASE NO. ER-2016-0023

6 Q. Please state your name and business address.

7 A. My name is Sarah L. Kliethermes and my business address is 200 Madison
8 Street, P.O. Box 360, Jefferson City, Missouri 65102.

9 Q. Who is your employer and what is your present position?

10 A. I am employed by the Missouri Public Service Commission ("Commission")
11 and my title is Regulatory Economist III, Economic Analysis Unit, Operational Analysis
12 Department, Commission Staff Division.

13 Q. What is your educational background and work experience?

14 A. A copy of my work and educational experience was provided in Appendix 1 of
15 Staff's *Cost-of-Service Revenue Requirement Report* and in Appendix 1 of *Staff's Rate Design*
16 *and Class Cost-of-Service Report*.

17 Q. Are you the same Sarah L. Kliethermes that contributed to Staff's *Cost-of-*
18 *Service Revenue Requirement Report* and *Staff's Rate Design and Class Cost-of-Service*
19 *Report* filed in this The Empire District Electric Company ("Empire" or "Company")
20 proceeding?

21 A. Yes, I am.

22 Q. How is your testimony organized?

1 A. I will provide Staff's Class Cost of Service ("CCOS") study results updated as
2 of Staff's rebuttal filing, and respond to the direct filings of other parties regarding requested
3 interclass shifts and intra-class rate design.

4 **UPDATED AND CORRECTED CCOS, INTERCLASS SHIFT RECOMMENDATION,**
5 **AND SUMMARY**

6 Q. Has Staff updated its Detailed Base Intermediate Peak ("BIP") study?

7 A. Yes. Staff updated and corrected its study to reflect the items indicated below.
8 The corrected graphs and tables for the Report are attached as Schedule SLK- r1

- 9 1. I determined that I had included two errors in determining the Production-
10 related allocators. I had inadvertently included the LP class's peak
11 energy with its intermediate energy. I had also inadvertently categorized
12 the combustion turbine Energy Center 3 as intermediate capacity. It is
13 properly categorized as peak capacity.
- 14 2. Staff revised the format of the calculation of class rates of return to be
15 consistent with the format used by the parties filing CCOS studies in Case
16 No. ER-2014-0351. This revision does not impact the over/under
17 contribution dollar value calculated for each class, but does revise the
18 class rates of return presented for each class to include all revenues. This
19 is the approach used by the company and by the parties filing revisions to
20 the company's study, in Case No. ER-2014-0351.
- 21 3. Staff corrected the allocation used for two accounts relating to customer-
22 related revenues.
- 23 4. Staff updated its study with the most-recent EMS run (i.e., Accounting
24 Schedules).

25 Q. Has Staff revised its interclass shift recommendation?

26 A. Yes. Based on the rebuttal CCOS results, Staff recommends that the revenue-
27 neutral shift from the General Power ("GP") class to the Residential class be increased from
28 \$3,855,000 to \$4,000,000. The direct-filed recommendation was limited to a level that would
29 not result in the GP tariffed rates decreasing as part of this case. Based on the newly

1 calculated revenue requirement amount, the level of shift that can be accomplished without
2 decreasing rates slightly increased.

3 Q. Has Staff performed any additional CCOS studies?

4 A. Yes, for purposes of comparison, Staff has also done an alternative Average
5 and Excess study of the four Non-Coincident Peaks ("A&E"). As discussed below, Staff also
6 provides the results of the Detailed BIP study it filed in the last Empire case, Case No.
7 ER-2014-0351 that is the basis for the recommendations of other parties to this case, Case No.
8 ER-2016-0023.

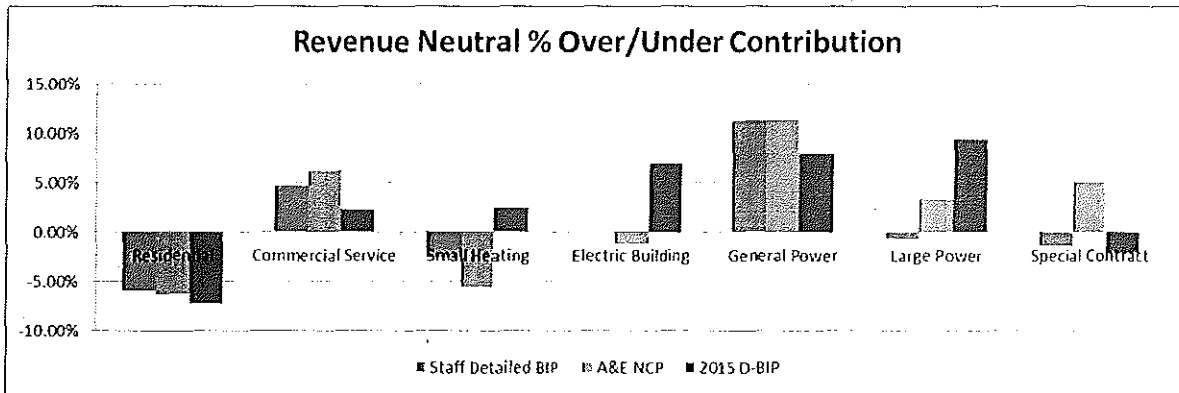
9 Q. Does Staff recommend the Commission rely on these alternative studies in
10 determining the appropriateness of interclass shifts in this case?

11 A. No. Staff recommends the Commission rely on its 2016 Detailed BIP study in
12 setting rates in this case, but provides this alternative study to address the reasonableness of
13 the assertions made by Empire and industrial intervenor witnesses in their respective direct
14 filings. The A&E study is less reliable than Staff's Detailed BIP in this case in that it does not
15 take into account the relationship between the cost of the plant required to serve various levels
16 of demand and energy, and the cost of producing energy; and, it is a less accurate allocation of
17 production-related costs. Further, the Commission should not rely on Staff's Detailed BIP
18 from 2015 for setting rates in this case because that study is stale, and there have been
19 noticeable changes in the underlying data that limit its usefulness under the facts and
20 circumstances of this case.

21 Q. Are the results of the A&E study generally consistent with the results of Staff's
22 2016 Detailed BIP?

1 A. Yes. As indicated below, both studies indicate that to move towards
2 equalization of class rates of return, (1) the Residential class should receive a larger than
3 system average increase, (2) the GP class should receive a smaller than system average
4 increase, and (3) the other classes should receive a system average increase. However, there
5 is some indication that a small shift in revenue responsibility away from the Commercial
6 Service (“CB”) class could be appropriate.¹

7 Below are the results of the updated Detailed BIP, A&E, and 2015 Detailed BIP
8 studies:

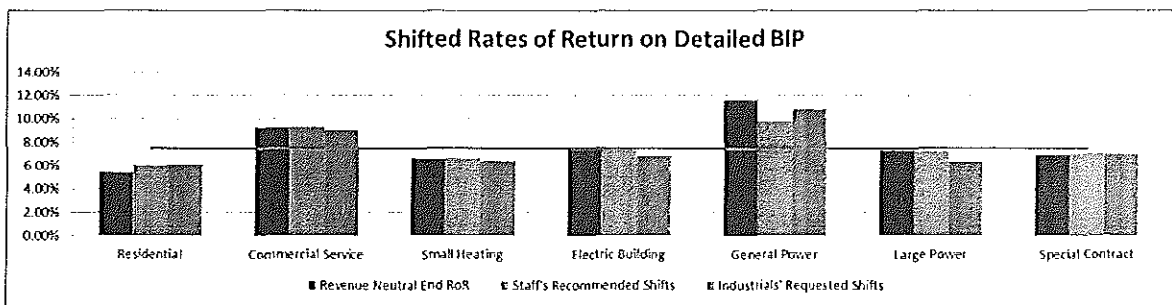


10
11 Q. Are the interclass shifts recommended by Empire, Midwest Energy Consumers
12 Group (“MECG”), and the Midwest Energy Users' Association (“MEUA”), (collectively
13 “Industrials”) consistent with these study results?

14 A. No. The Industrials’ requested shifts would make a move in the wrong
15 direction for the LP class, and do not do enough to adequately address the over-contribution
16 of the GP class. The Industrials’ recommendations include a series of small shifts that could

¹ All parties appear to agree that the Feed Mill (“PFM”) and Lighting classes should receive no increase. To simplify presentation of information concerning the remaining classes, the PFM and Lighting classes are generally omitted from the tables and graphs presented in this testimony.

1 cumulatively distort rate relationships between classes and cause both rate switching and price
2 distinctions similar to the existing misalignment of the Small Heating (“SH”) and Total
3 Electric Building (“TEB”) classes that Staff addressed in its direct.² The graph below
4 illustrates that the Industrials’ shifts would move all classes other than the Residential class
5 further away from a system average rate of return than would be accomplished by Staff’s
6 recommended shifts.³



8

9 Q. Does Staff support the disproportional Large Power (“LP”) tailblock proposal?

10 A. No. Staff recommends the LP tailblock be increased proportionately with the
11 other charges in that class.

12 **INTERCLASS SHIFTS**

13 Q. Does Staff support the Industrials and Empire-recommended interclass shifts?

14 A. No. These shifts make a move in the wrong direction for the LP class and do
15 not adequately address the over-contribution of the GP class. The Industrials and Empire also
16 make a series of small shifts that could cumulatively distort rate relationships between classes

² Empire recommends an additional shift to exempt the Special Contract class from any increase and to shift that increase to the Residential class. Staff’s study indicates that it is appropriate for the Special Contract class to receive a system average increase.

³ Staff does not necessarily oppose the magnitude of the revenue-neutral shift that the Industrials recommend; however, as discussed below, there are practical impediments to the Industrials’ recommended shift.

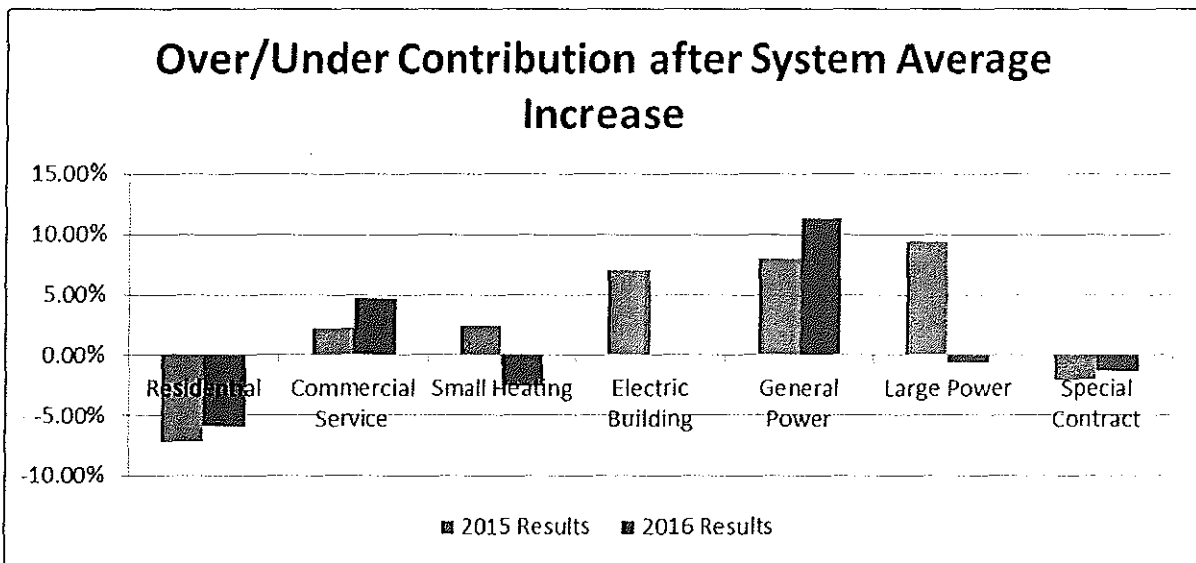
1 and cause both rate switching and price distinctions similar to the existing misalignment of
2 the SH and TEB classes that Staff addressed in its direct concerning customer charges.

3 Q. Did Empire, MEUA, or MECG file any study to support the shifts each request
4 in this case?

5 A. No. Each relies on the results of Staff's Detailed BIP study submitted in the
6 last Empire rate case, Case No. ER-2014-0351.⁴ In that case, the Commission directed
7 specific revenue-neutral interclass shifts be made based on the facts and evidence presented in
8 that case. In this case, Empire and the Industrials request the Commission make the same
9 specific revenue-neutral interclass shifts, without examining whether the study results upon
10 which those shifts were based have changed.

11 Q. Have those study results changed?

12 A. Yes. As illustrated below, all of the levels of class over/under contribution
13 have changed in magnitude, and some have changed in sign from positive to negative.



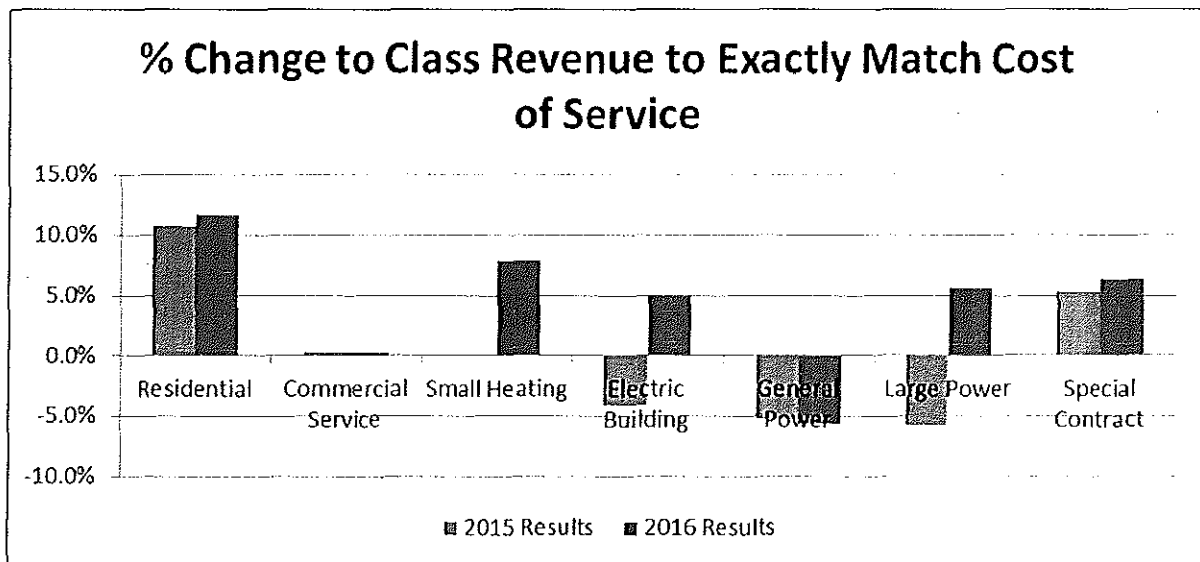
⁴ Referred to above as the 2015 Detailed BIP.

1 Q. Do both studies indicate that the Residential class should receive an above
2 system average increase, while the GP class should receive a below system average increase?

3 A. Yes. To move towards equalization of rates of return among classes, both the
4 2015 study and the 2016 study indicate that Residential rates should be increased by more
5 than the system average increase. Both studies also indicate that the GP class is contributing
6 to rate of return at a level noticeably exceeding system average.

7 Q. Have the results changed from 2015 to 2016 concerning whether the LP class
8 should receive a below system average increase?

9 A. Yes. As illustrated below, as studied in the last case, the LP class should have
10 received (and did receive) a below system average increase. However, as currently studied,
11 LP should receive a system average increase.



14 Q. The above graphs indicate that the LP class as studied in 2016 is a
15 below-average contributor to rate of return. Should the LP class receive an above-average
16 increase in this case?

1 A. No. CCOS studies are not precise and should serve as a guide to setting
2 revenue requirements. For example, CCOS studies are based on a direct-filed revenue
3 requirement and the allocation of that revenue requirement among specific accounts, using a
4 specific rate of return. Unless the Commission approves that exact set of Accounting
5 Schedules as well as the direct-filed billing determinants in setting the revenue requirement in
6 a particular case, there is an inherent disconnect between the CCOS study results used in
7 providing a party's class cost-of-service and rate design recommendations, and the actual
8 class cost-of-service that would result at the conclusion of a case.

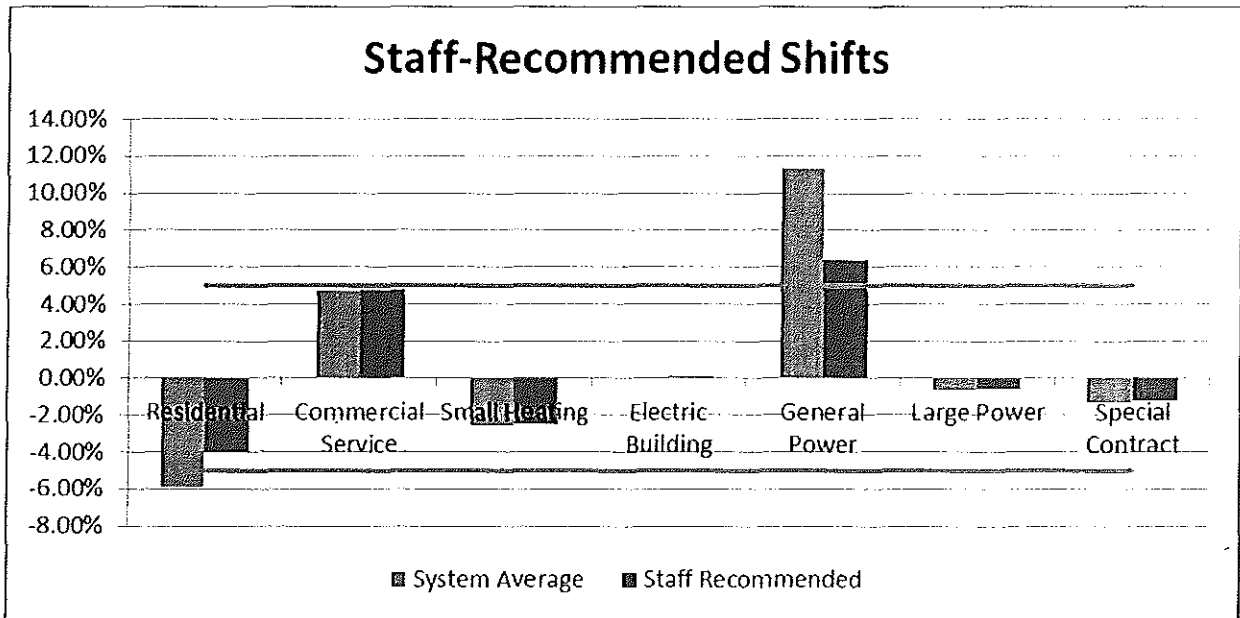
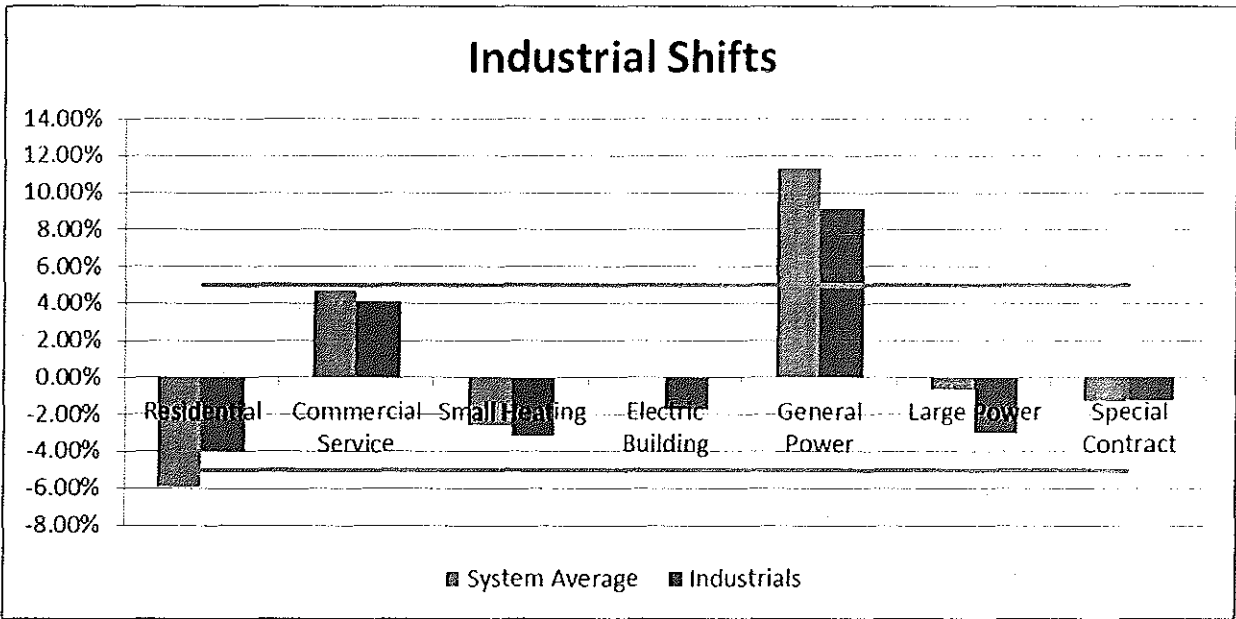
9 Q. What caused the change in sign from positive to negative for classes such as
10 LP from last case to this case?

11 A. Staff's CCOS study in this case incorporated the Riverton 12 Heat Recovery
12 Steam Generator ("HRSG") addition to plant. This was a large capital item, and it is difficult
13 to predict how a combined cycle will be allocated to classes without performing a study.
14 There has also been a reduction in the Residential class's normalized level of consumption
15 of energy since the last case, growth in the GP class, a decline in LP's revenues relative to
16 the level at the time of Staff's direct filing in the last case, as well as the impact of customers
17 who were in one class at the time of the last case, but have switched to another class since the
18 last case.⁵

19 Q. Would the shifts ordered in the last case bring classes closer to an equalized
20 rate of return than the shifts Staff recommends in the current case?

⁵ See Staff's Revenue Requirement Report at pages 69-78.

1 A. As shown below, the Industrials' shifts to the SH, TEB, and LP classes go in
2 the wrong direction. In contrast, (with the exception of CB), Staff's recommended shifts
3 reduce the over/under contributions.



1 Q. Would Staff oppose a shift to address the level of the CB class's over-
2 contribution to rate of return?

3 A. No, as noted in direct, Staff would recommend a shift of about \$25,000 from
4 CB to Residential if the overall revenue requirement exceeds \$23,000,000.

5 Q. Why does Staff not recommend equalizing the over/under contributions of SH,
6 TEB, LP, and Special Contract?

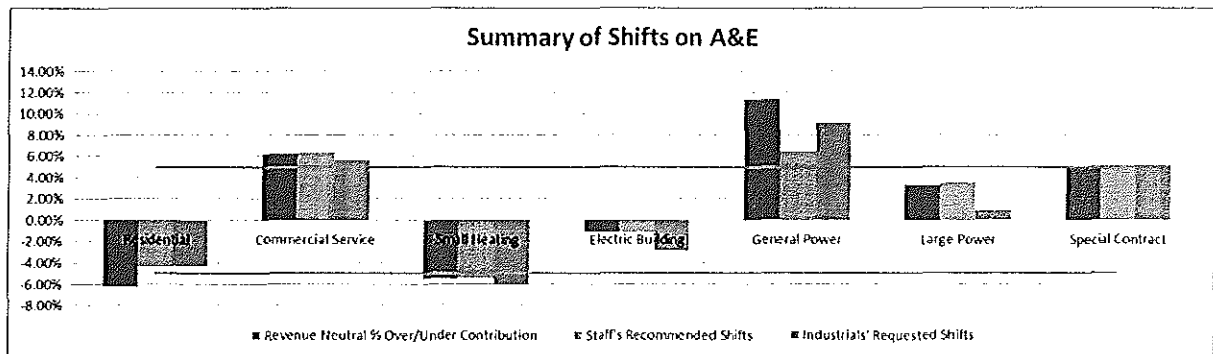
7 A. A CCOS is not accurate to that level of precision. As is shown in the changes
8 from last case to this case, a class's revenue contribution and revenue responsibility can
9 change greatly over time. A CCOS study is based on a snapshot in time. CCOS studies are
10 very useful for observing whether or not a class's contribution to equalized rate of return is
11 above or below another class's contribution, under the specific assumptions of a rate case.
12 A CCOS study is not able to accommodate the day-to-day and year-to-year shifts in both costs
13 and revenues, however. While study results can be carried out to multiple decimal points of
14 precision, the overall accuracy of any CCOS study is limited to a few percent.
15 This distinction in precision versus accuracy is exacerbated by the necessity of filing a CCOS
16 study on a revenue requirement that has not yet been ordered by the Commission and that is
17 very much in dispute between the Staff, utility, and intervenors. For example, Empire filed a
18 requested increase of roughly \$35 million dollars. Staff's direct filing recommended an
19 increase of approximately \$21 million dollars, reflecting significant disagreement of the
20 underlying costs to be allocated.

21 Q. Does Staff recommend increasing the magnitude of the shift from the GP class
22 to the Residential class beyond its updated recommendation of \$4,000,000?

1 A. No. Staff cautions against increasing the magnitude of the GP to Residential
2 interclass shift. If the shift is made any larger and the Commission adopts Staff's
3 recommended revenue requirement, the GP class's rates would actually reduce from the
4 currently-tariffed rates. Additionally, the likelihood of customers rate-switching into the GP
5 class for favorable rates should be kept in mind. If customers switch into GP that have below
6 GP class-average load factors, there is the risk that those customers would cause the need for
7 an above-system average increase to the GP class in the next rate case. Gradualism is a key
8 tenet of rate design.

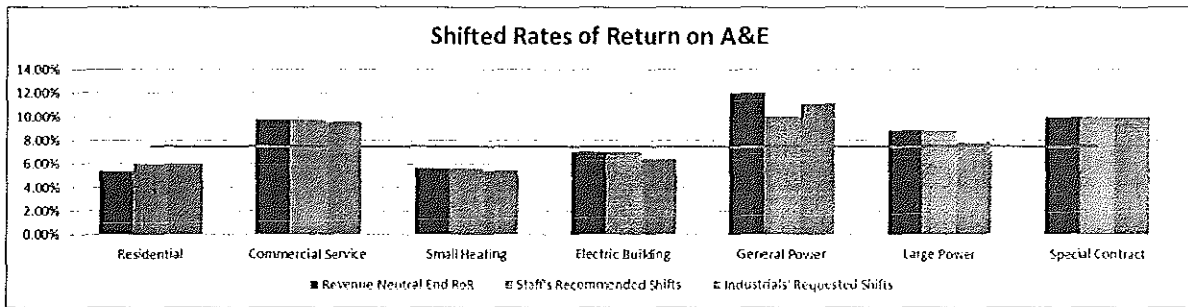
9 Q. Does an A&E allocation of production-related costs support the Industrials'
10 shifts?

11 A. No. As shown below, even if an A&E study is used as the basis for interclass
12 shifts, the Industrials' shifts would result in movement in the wrong direction for the SH and
13 TEB class, and inappropriately reduce the rates for the LP class beyond the accuracy of any
14 CCOS study. Similarly, the GP class would not receive as much relief from its over-
15 contribution as is reasonable under the facts and circumstances of this case.



18 Q. Do the Industrials' shifts result in an equalization of class rates of return under
19 an A&E study?

1 A. As shown below, they do not.



4 Q. Which set of recommended interclass shifts most reasonably address the
5 relative over/under contributions to class cost-of-service, assuming rates are to be designed to
6 equalize class rates of return?

7 A. As shown below, Staff's recommended interclass shift of revenue
8 responsibility from the GP class to the Residential class of \$4,000,000 most reasonably moves
9 towards equalization of class rates of return, while being mindful of the following
10 considerations:

11 (1) In a general rate case resulting in an increase in a utility's overall revenue
12 requirement, Staff is reluctant to recommend reducing any class's rates while the
13 overall revenue requirement is increasing.

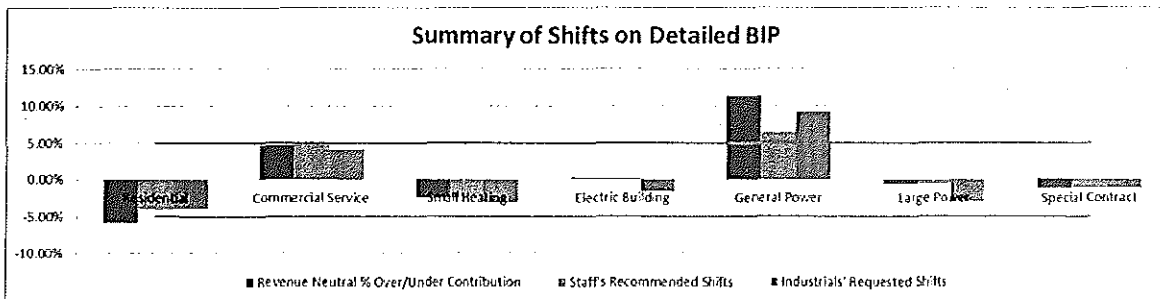
14 (2) CCOS studies should serve as a guide to setting revenue requirements and
15 are not precise. For example, CCOS studies are based on a direct-filed revenue
16 requirement, and the allocation of that revenue requirement among specific
17 accounts, using a specific rate of return. Unless the Commission approves that
18 exact set of accounting schedules as well as the direct-filed billing determinants in
19 setting the revenue requirement in a particular case, there is an inherent
20 disconnect between the CCOS study results used in providing a party's class cost-
21 of-service and rate design recommendations, and the actual class cost-of-service
22 that would result at the conclusion of a case.

23 (3) Consideration of policy, such as rate continuity, rate stability, revenue
24 stability, minimization of rate shock to any one customer class, meeting of
25 incremental costs, and consideration of promotional practices are also taken into

1 account in Staff's ultimate recommendation of Empire class revenue recovery
2 through rate design. Staff endeavors to provide methods to implement in rates
3 any Commission-ordered overall change in customer revenue responsibility
4 promoting revenue stability and efficiency. Staff must also balance this, to the
5 extent possible, retaining existing rate schedules, rate structures, and important
6 features of the current rate design that reduce the number of customers that switch
7 rates looking for the lowest bill and mitigate the potential for rate shock. Rate
8 schedules should be understood by all parties, customers, and the utility as to
9 proper application and interpretation.

10 (4) Staff endeavors to provide the Commission with a rate design
11 recommendation based on each customer class's relative cost-of-service
12 responsibility and yield the total revenue requirement to all classes in a fair
13 manner avoiding undue discrimination, including methods to recover both fixed
14 and variable costs in a timely manner. This ensures Empire receives an amount
15 above its marginal costs on sales of electricity, and each class is providing a
16 contribution to cover fixed costs.

17 (5) In providing its rate design recommendation, Staff will recommend
18 revenue-neutral shifts so that once the rate increase has been applied, a given class
19 does not underpay by greater than 5% of its revenue requirement while another
20 class or classes overpay by greater than 5% of its revenue requirement.



22

23 INTRA-CLASS

24 Q. Does Staff support the disproportional LP tailblock proposals requested by the
25 parties to this case?

26 A. No. Staff recommends the LP tailblock be increased proportionately with the
27 other charges in that class, pending the study of time-of-use rate structures for that class as

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1 | was ordered by the Commission in Case No. ER-2014-0351. In his rebuttal testimony on
2 | page 12, Company witness, W. Scott Keith states that “the billing system limitations
3 | [currently precluding expansion of time of use rate structures] are addressed in the
4 | next scheduled billing system enhancement, which is currently scheduled to occur in the next
5 | two years.”

6 | **CONCLUSION**

7 | Q. Does this conclude your rebuttal testimony?

8 | A. Yes.

Page 4, Line 2, Class Cost of Service Study results:

Table 1

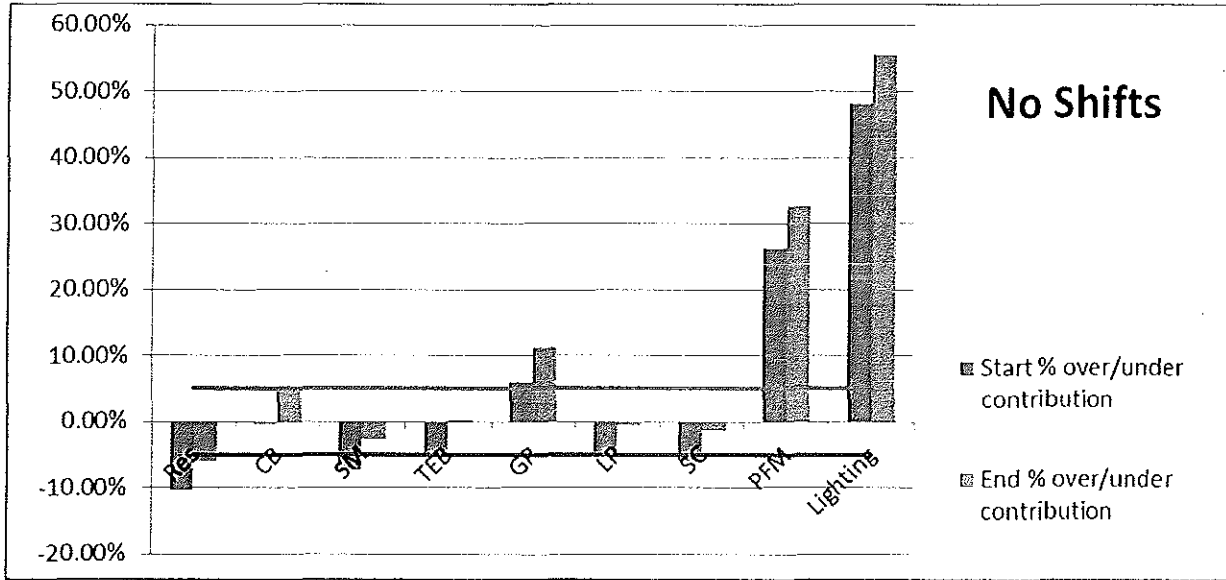
	Current Revenue <i>plus Allocated Other Revenue</i>	Revenue Change to Equalize Class Rates of Return	Start % over/under contribution	% Change to Class Revenue to Exactly Match Cost	Start RoR
Residential	\$215,848,066	\$24,296,068	-10.43%	11.64%	3.88%
Commercial Service	\$ 44,334,695	\$126,598	-0.29%	0.29%	7.37%
Small Heating	\$ 10,734,202	\$814,726	-7.26%	7.83%	5.03%
Electric Building	\$ 38,522,748	\$1,877,087	-4.78%	5.03%	5.88%
General Power	\$ 91,911,928	-\$5,036,429	5.97%	-5.64%	9.69%
Large Power	\$ 55,477,567	\$3,023,761	-5.34%	5.64%	5.49%
Special Contract	\$ 4,495,992	\$274,703	-5.98%	6.36%	5.16%
Feed Mill	\$ 116,483	-\$23,862	26.33%	-20.85%	17.80%
Lighting	\$ 7,735,128	-\$2,503,931	48.20%	-32.52%	22.33%

Page 5, Line 4; and page 34, line 14, Class Cost of Service Study results:

Table 2

	Start % over/under contribution	System Average Increase + Energy Efficiency	End % over/under contribution
Residential	-10.43%	\$ 10,500,874	-5.92%
Commercial Service	-0.29%	\$ 2,164,607	4.72%
Small Heating	-7.26%	\$ 524,546	-2.59%
Electric Building	-4.78%	\$ 1,886,645	0.02%
General Power	5.97%	\$ 4,509,434	11.32%
Large Power	-5.34%	\$ 2,662,902	-0.64%
Special Contract	-5.98%	\$ 213,511	-1.33%
Feed Mill	26.33%	\$ 5,731	32.66%
Lighting	48.20%	\$ 380,490	55.52%

Page 5, Line 6; and page 35, line 2, over and under contributions by class without interclass shifts:

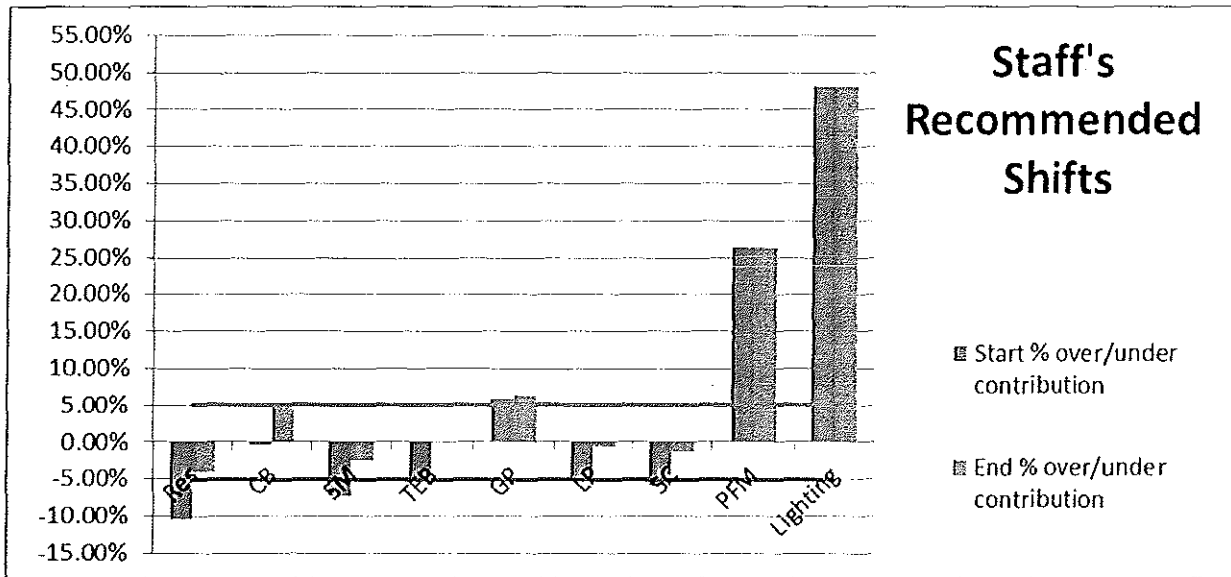


Page 7, Line 15; and Page 36, Line 6, Over and Under Contributions by class with Staff's recommended interclass shifts:

Table 3

	Revenue Responsibility Shift	Retail Increase + Energy Efficiency	End % over/under contribution	End RoR	% Increase
Residential	\$4,000,000	\$ 10,882,345	-4.04%	6.09%	7.13%
Commercial Service	\$0	\$ 2,201,844	4.80%	9.34%	5.11%
Small Heating	\$0	\$ 533,539	-2.51%	6.64%	5.13%
Electric Building	\$0	\$ 1,918,905	0.11%	7.52%	5.14%
General Power	-\$4,000,000	\$ 4,385,482	6.43%	9.86%	0.43%
Large Power	\$0	\$ 2,709,282	-0.56%	7.28%	5.05%
Special Contract	\$0	\$ 217,256	-1.25%	7.00%	5.03%
Feed Mill	\$0	\$ 87	26.43%	17.84%	0.08%
Lighting	\$0	\$ -	48.20%	22.33%	0.00%

Page 8, Line 2; and Page 36, Line 8, realignment of class contributions under Staff's recommended shifts:

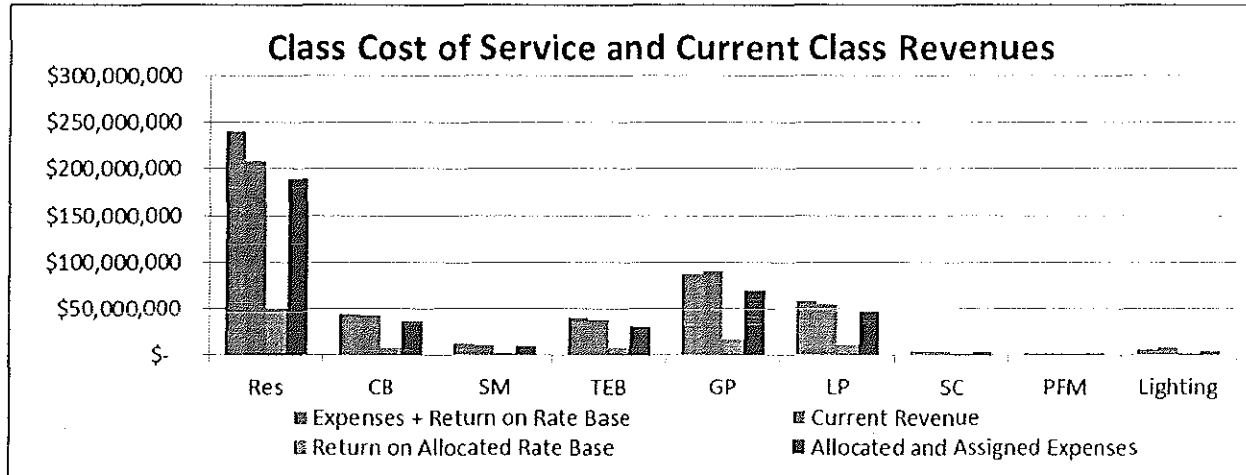


Page 10, Line 2, realignment of class contributions under Staff's recommended shifts:

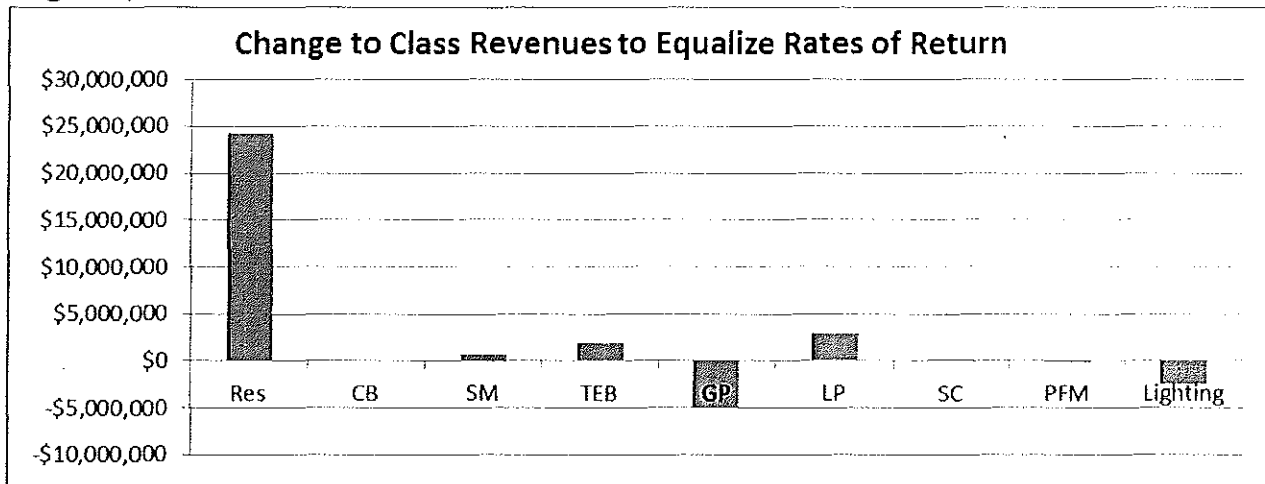
Table 4

	Current Revenue plus Allocated Other Revenue	Revenue Change to Equalize Class Rates of Return	Start % over/under contribution	% Change to Class Revenue to Exactly Match Cost of Service	Start RoR	System Average Increase + Energy Efficiency	End RoR	Additional Revenue Change to Equalize Class Rates of Return	End % over/under contribution
Residential	\$ 215,848,066	\$24,296,068	-10.43%	11.64%	3.88%	\$ 10,500,874	5.44%	\$13,795,194	-5.92%
Commercial Service	\$ 44,334,695	\$126,598	-0.29%	0.29%	7.37%	\$ 2,164,607	9.31%	-\$2,038,009	4.72%
Small Heating	\$ 10,734,202	\$814,726	-7.26%	7.83%	5.03%	\$ 524,546	6.61%	\$290,181	-2.59%
Electric Building	\$ 38,522,748	\$1,877,087	-4.78%	5.03%	5.88%	\$ 1,886,645	7.49%	-\$9,557	0.02%
General Power	\$ 91,911,928	-\$5,036,429	5.97%	-5.64%	9.69%	\$ 4,509,434	11.66%	-\$9,545,863	11.32%
Large Power	\$ 55,477,567	\$3,023,761	-5.34%	5.64%	5.49%	\$ 2,662,902	7.25%	\$360,859	-0.64%
Special Contract	\$ 4,495,992	\$274,703	-5.98%	6.36%	5.16%	\$ 213,511	6.97%	\$61,192	-1.33%
Feed Mill	\$ 116,483	-\$23,862	26.33%	-20.85%	17.80%	\$ 5,731	20.28%	-\$29,593	32.66%
Lighting	\$ 7,735,128	-\$2,503,931	48.20%	-32.52%	22.33%	\$ 380,490	24.58%	-\$2,884,422	55.52%

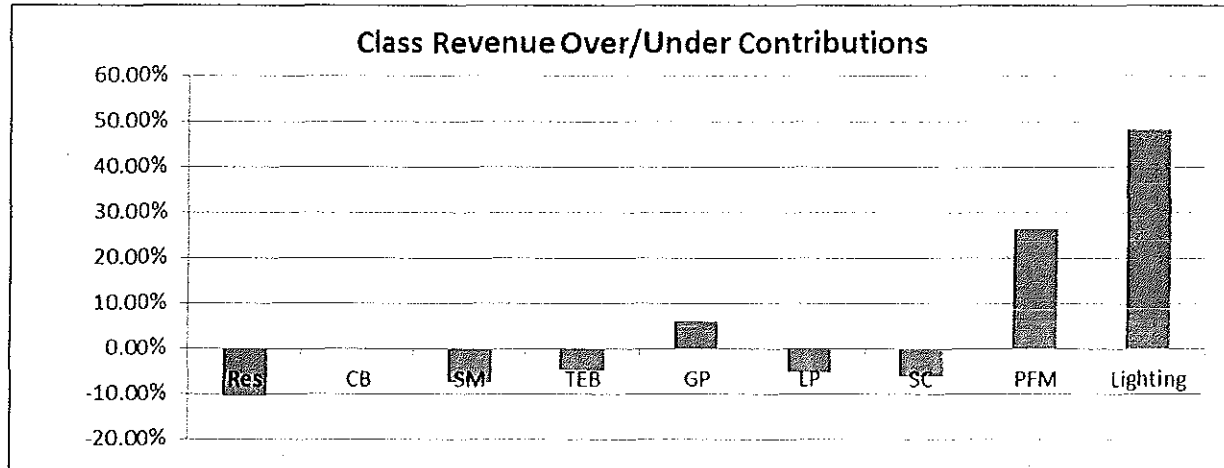
Page 11, Line 2:



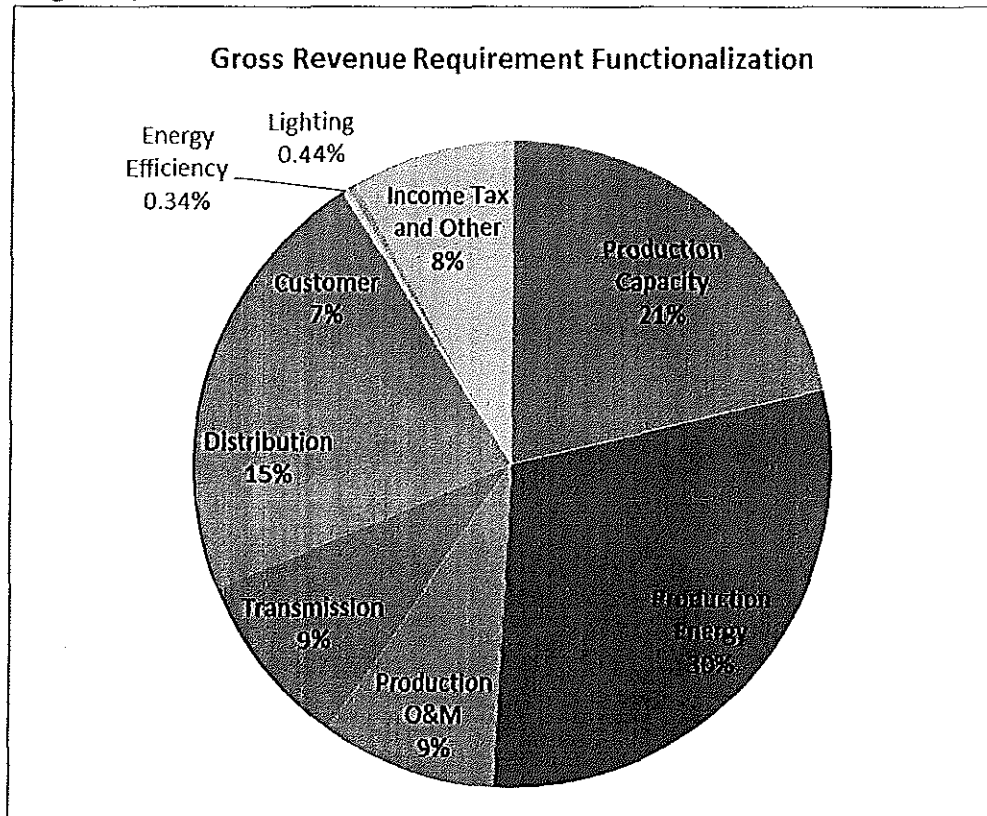
Page 11, Line 4:



Page 11, Line 6:



Page 13, Line 11:



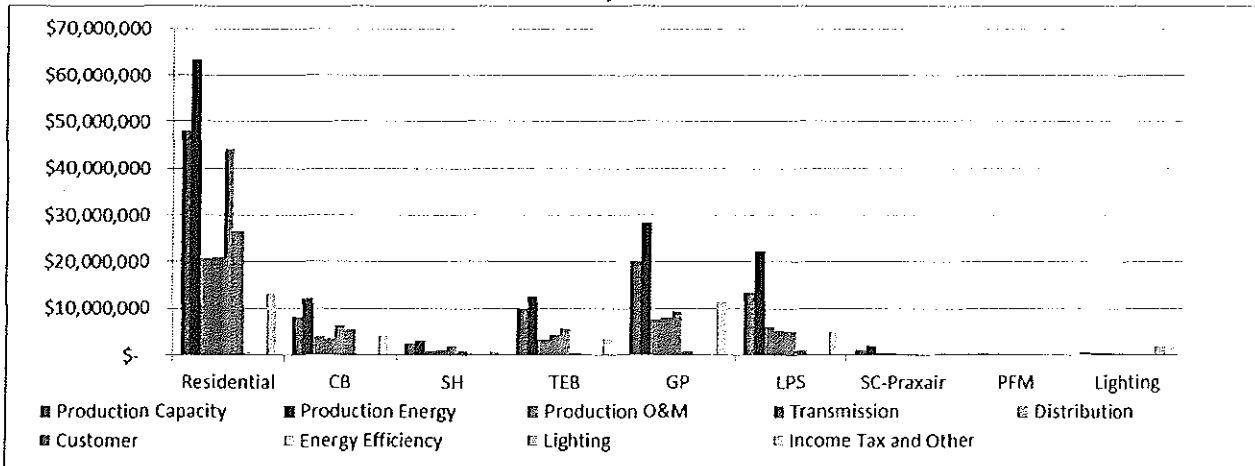
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Page 14, Line 2, functionalized dollars by class:

Table 5

	Residential	CB	SH	TEB	GP	LPS	SC-Praxair	PFM	Lighting
Production Capacity	\$ 48,012,030	\$ 8,248,379	\$ 2,517,203	\$ 9,785,935	\$ 19,973,611	\$ 13,482,612	\$ 1,226,767	\$ 16,750	\$ 594,475
Production Energy	\$ 63,401,199	\$ 12,183,283	\$ 3,086,339	\$ 12,549,336	\$ 28,445,179	\$ 22,426,615	\$ 2,127,737	\$ 20,334	\$ 39,500
Production O&M	\$ 20,872,642	\$ 4,013,984	\$ 892,486	\$ 3,434,564	\$ 7,691,239	\$ 6,222,990	\$ 530,631	\$ 5,975	\$ 303
Transmission	\$ 20,989,475	\$ 3,556,890	\$ 1,127,801	\$ 4,323,548	\$ 8,095,221	\$ 5,290,609	\$ 439,469	\$ 7,227	\$ 21,315
Distribution	\$ 44,063,156	\$ 6,345,129	\$ 1,996,658	\$ 5,794,199	\$ 9,296,777	\$ 5,000,787	\$ 102,362	\$ 15,468	\$ 262,887
Customer	\$ 26,595,776	\$ 5,458,478	\$ 930,986	\$ 514,096	\$ 1,063,785	\$ 865,424	\$ 34,211	\$ 4,596	\$ 228,032
Energy Efficiency	\$ 801,317	\$ 151,659	\$ 43,012	\$ 172,463	\$ 394,538	\$ 112,356	\$ -	\$ 314	\$ -
Lighting	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,138,739
Income Tax and Other	\$ 13,237,883	\$ 4,169,715	\$ 845,210	\$ 3,506,098	\$ 11,468,416	\$ 5,053,721	\$ 309,473	\$ 20,897	\$ 1,913,425

Page 14, Line 4, functionalized dollars by class:

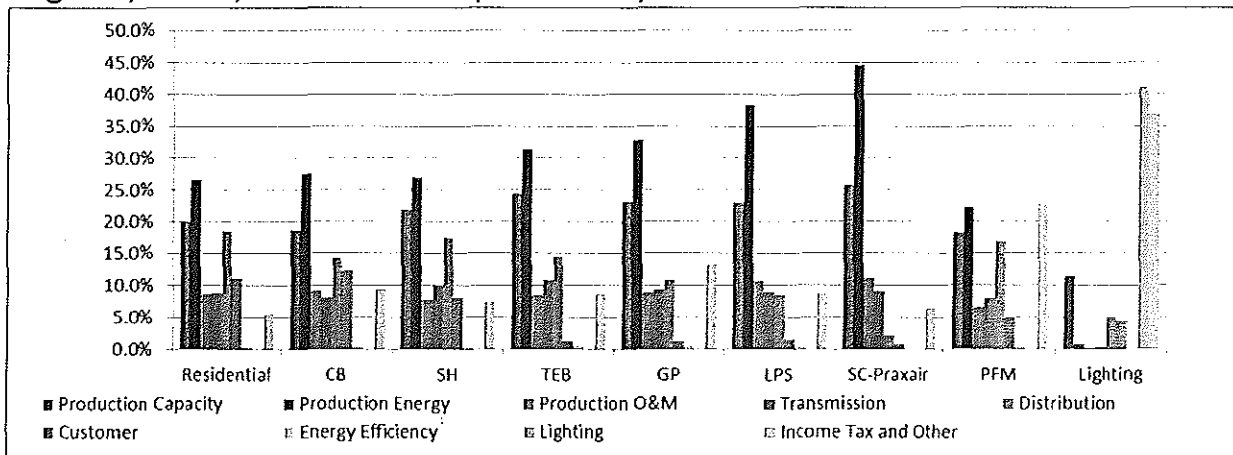


Page 15, Line 2, functionalized percents by class:

Table 6

	Residential	CB	SH	TEB	GP	LPS	SC-Praxair	PFM	Lighting	Total
Production Capacity	20.2%	18.7%	22.0%	24.4%	23.1%	23.1%	25.7%	18.3%	11.4%	21.3%
Production Energy	26.6%	27.6%	27.0%	31.3%	32.9%	38.4%	44.6%	22.2%	0.8%	29.5%
Production O&M	8.8%	9.1%	7.8%	8.6%	8.9%	10.6%	11.1%	6.5%	0.0%	8.9%
Transmission	8.8%	8.1%	9.9%	10.8%	9.4%	9.1%	9.2%	7.9%	0.4%	9.0%
Distribution	18.5%	14.4%	17.5%	14.5%	10.8%	8.6%	2.1%	16.9%	5.1%	14.9%
Customer	11.2%	12.4%	8.1%	1.3%	1.2%	1.5%	0.7%	5.0%	4.4%	7.3%
Energy Efficiency	0.3%	0.3%	0.4%	0.4%	0.5%	0.2%	0.0%	0.3%	0.0%	0.3%
Lighting	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	41.1%	0.4%
Income Tax and Other	5.6%	9.4%	7.4%	8.7%	13.3%	8.6%	6.5%	22.8%	36.8%	8.3%

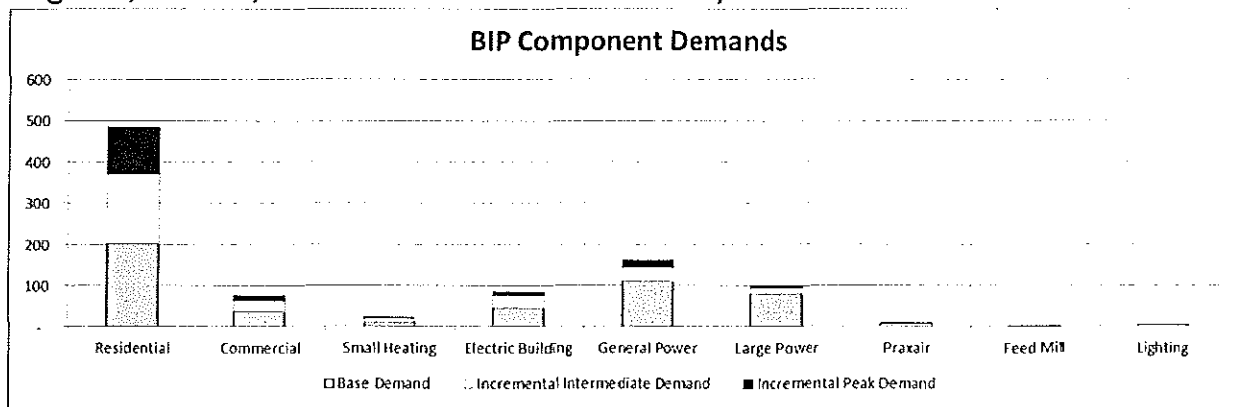
Page 15, Line 4, functionalized percents by class:



Page 19, Line 22, BIP Demand Characteristics by Class:

	Residential	Commercial	Small Heating	Electric Building	General Power	Large Power	Praxair	Feed Mill	Lighting
Base Demand:	200.94	38.20	10.94	45.00	110.04	81.04	8.11	0.08	3.93
Incremental Intermediate Demand:	169.46	24.57	8.97	31.30	32.81	12.32	-	0.05	-
Incremental Peak Demand:	112.48	12.75	2.99	9.16	18.29	5.78	-	0.01	-

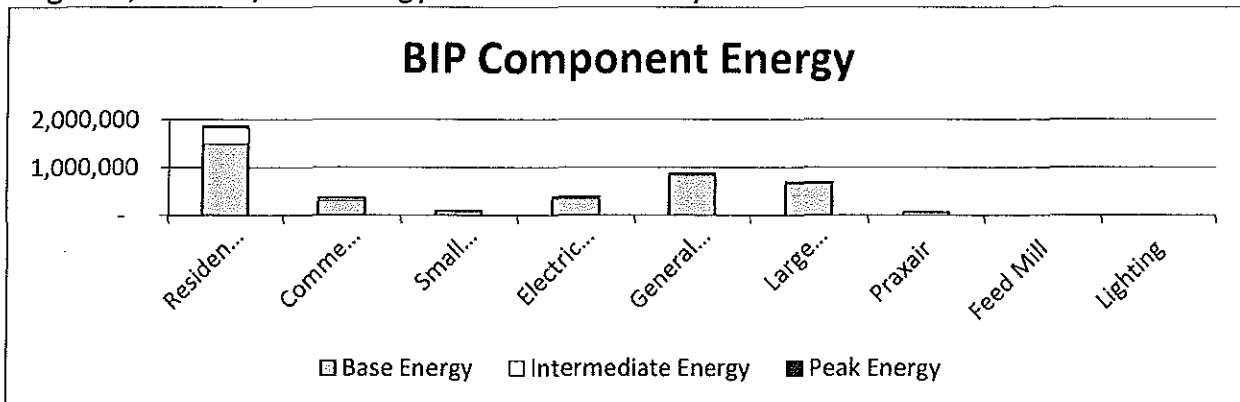
Page 19, Line 24, BIP Demand Characteristics by Class:



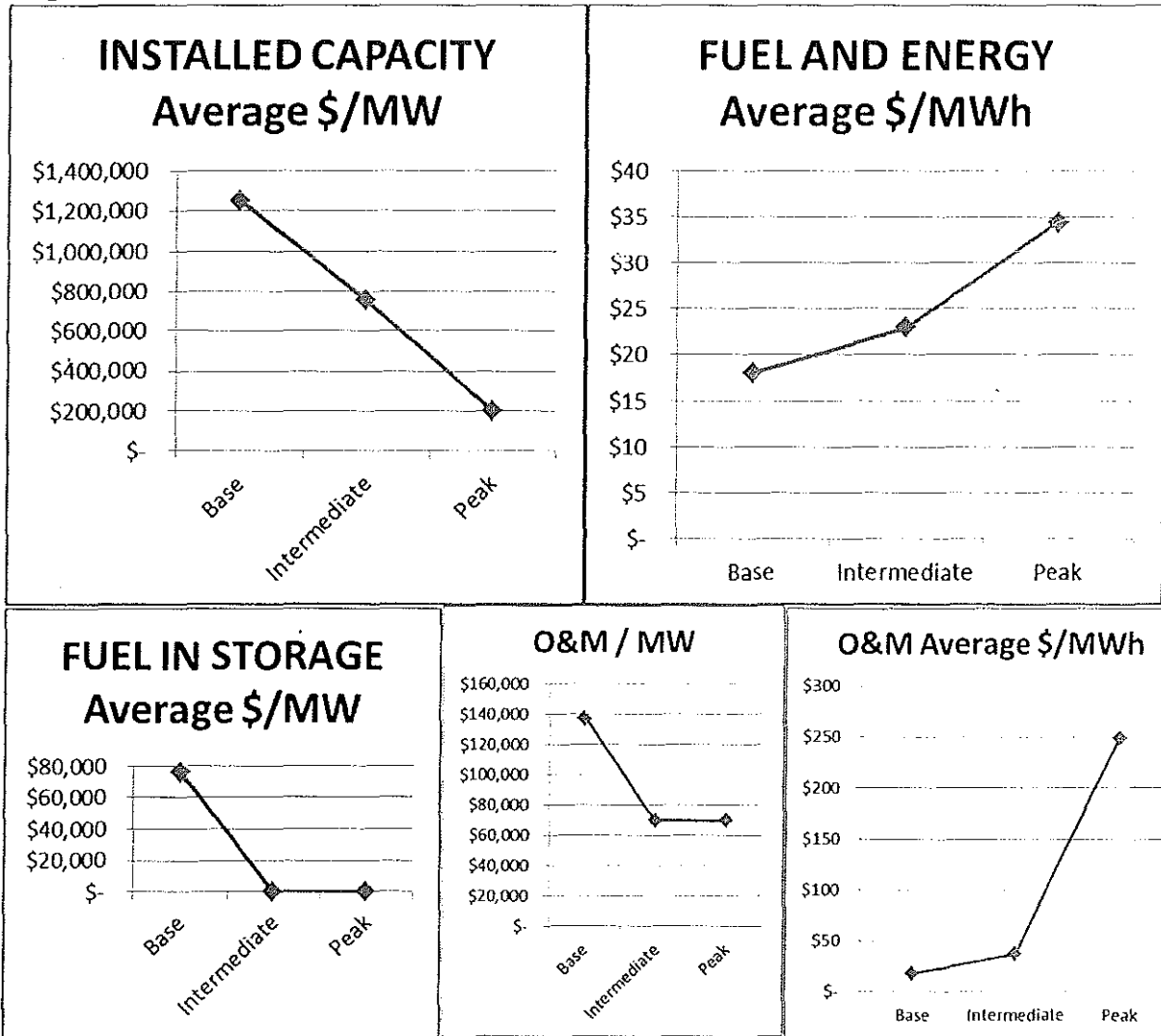
Page 20, Line 16, BIP Energy Characteristics by Class:

	Residential	Commercial	Small Heating	Electric Building	General Power	Large Power	Praxair	Feed Mill	Lighting
Base Energy:	1,493,042	301,606	79,872	342,111	830,082	658,008	66,481	451	38
Intermediate Energy:	347,966	54,159	12,498	38,995	39,955	27,424	-	144	-
Peak Energy:	29,304	6,499	445	554	3,706	4,725	-	-	-

Page 20, Line 18, BIP Energy Characteristics by Class:



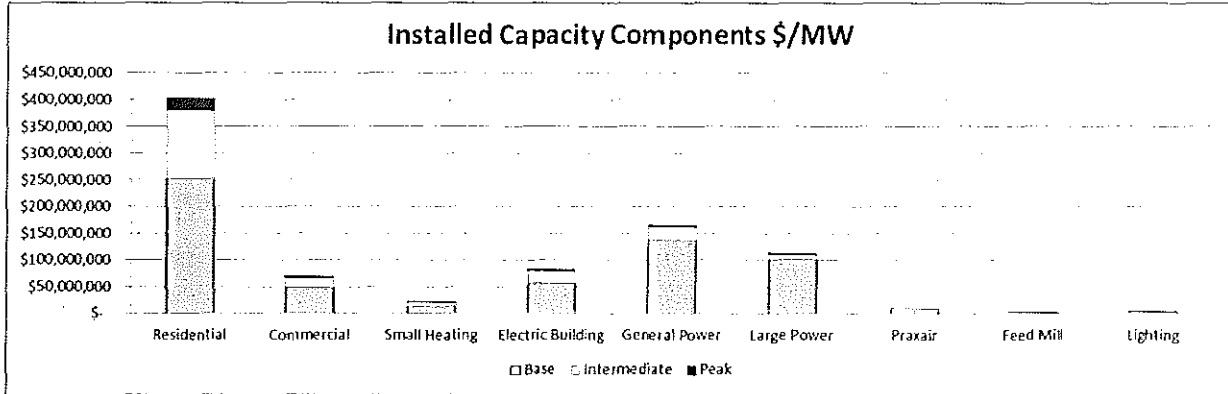
Page 22, Lines 10-12, BIP relative values:



Page 23, Line 4:

BIP Installed Capacity Allocator										
	Total	Residential	Commercial	Small Heating	Electric Building	General Power	Large Power	Praxair	Feed Mill	Lighting
Base Capacity	\$ 624,579,295	\$ 251,872,368	\$ 47,882,574	\$ 13,712,968	\$ 56,406,174	\$ 137,931,897	\$ 101,581,252	\$ 10,165,646	\$ 100,278	\$ 4,926,139
Incremental Intermediate Capacity	\$ 210,575,108	\$ 127,680,184	\$ 18,512,346	\$ 6,758,475	\$ 23,583,086	\$ 24,720,800	\$ 9,282,544	\$ -	\$ 37,673	\$ -
Incremental Peak Capacity	\$ 32,625,514	\$ 22,728,340	\$ 2,576,337	\$ 604,176	\$ 1,850,921	\$ 3,695,780	\$ 1,167,939	\$ -	\$ 2,021	\$ -
Totals:	\$ 867,779,917	\$402,280,892	\$68,971,257	\$21,075,619	\$81,840,181	\$166,348,477	\$112,031,735	\$10,165,646	\$139,971	\$4,926,139
BIP Installed Capacity Allocator:		46.36%	7.95%	2.43%	9.43%	19.17%	12.91%	1.17%	0.02%	0.57%

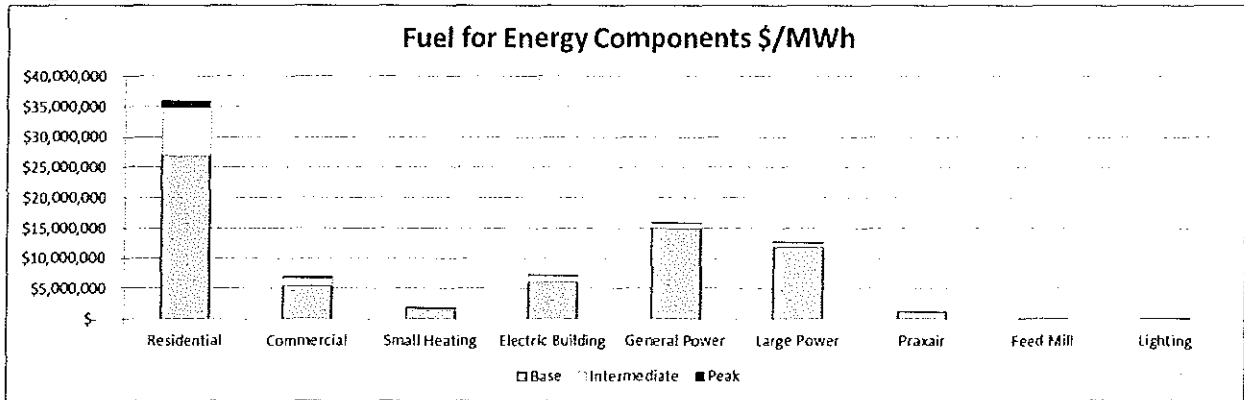
Page 23, Line 6:



Page 23, Line 8:

BIP Fuel for Energy Allocator (annual)										
	Total	Residential	Commercial	Small Heating	Electric Building	General Power	Large Power	Praxair	Feed Mill	Lighting
Base Energy Usage	\$ 67,846,281	\$ 26,857,276	\$ 5,425,377	\$ 1,436,761	\$ 6,153,993	\$ 14,931,758	\$ 11,836,440	\$ 1,195,880	\$ 8,113	\$ 684
Incremental Intermediate Usage	\$ 11,976,639	\$ 7,996,805	\$ 1,244,659	\$ 287,224	\$ 896,166	\$ 918,229	\$ 630,247	\$ -	\$ 3,309	\$ -
Incremental Peak Usage	\$ 1,561,023	\$ 1,011,302	\$ 224,285	\$ 15,357	\$ 19,119	\$ 127,897	\$ 163,063	\$ -	\$ -	\$ -
Totals:	\$ 81,383,943	\$35,865,383	\$6,894,321	\$1,739,342	\$7,069,278	\$15,977,883	\$12,629,750	\$1,195,880	\$11,422	\$684
BIP Fuel for Energy Allocator:		44.07%	8.47%	2.14%	8.69%	19.63%	15.52%	1.47%	0.01%	0.00%

Page 23, Line 10:

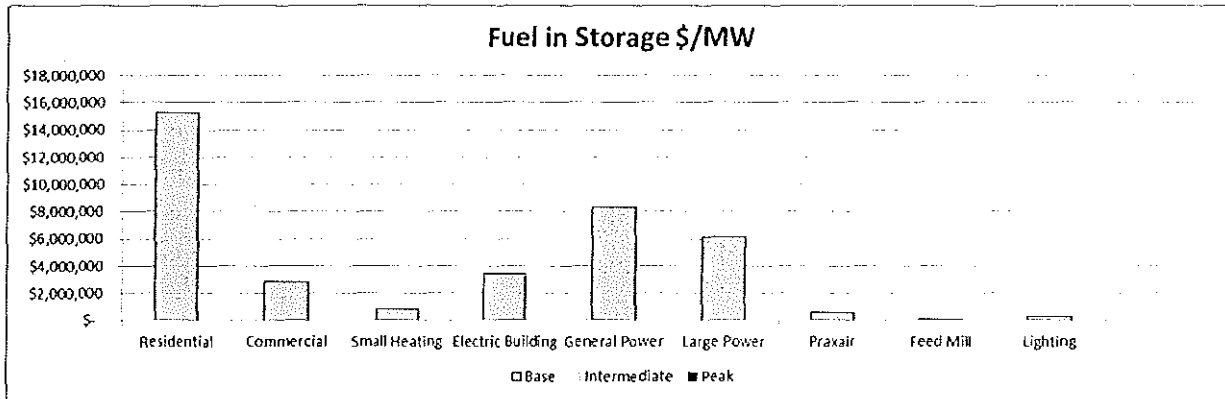


Page 23, Line 12:

BIP Fuel in Storage Allocator										
	Total	Residential	Commercial	Small Heating	Electric Building	General Power	Large Power	Praxair	Feed Mill	Lighting
Base Capacity	\$ 37,823,569	\$ 15,253,006	\$ 2,899,696	\$ 830,436	\$ 3,415,872	\$ 8,352,945	\$ 6,151,606	\$ 615,616	\$ 6,073	\$ 298,319
Incremental Intermediate Capacity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Incremental Peak Capacity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Totals:	\$ 37,823,569	\$15,253,006	\$2,899,696	\$830,436	\$3,415,872	\$8,352,945	\$6,151,606	\$615,616	\$6,073	\$298,319
BIP Fuel in Storage Allocator (Capacity):		40.33%	7.67%	2.20%	9.03%	22.08%	16.26%	1.63%	0.02%	0.79%

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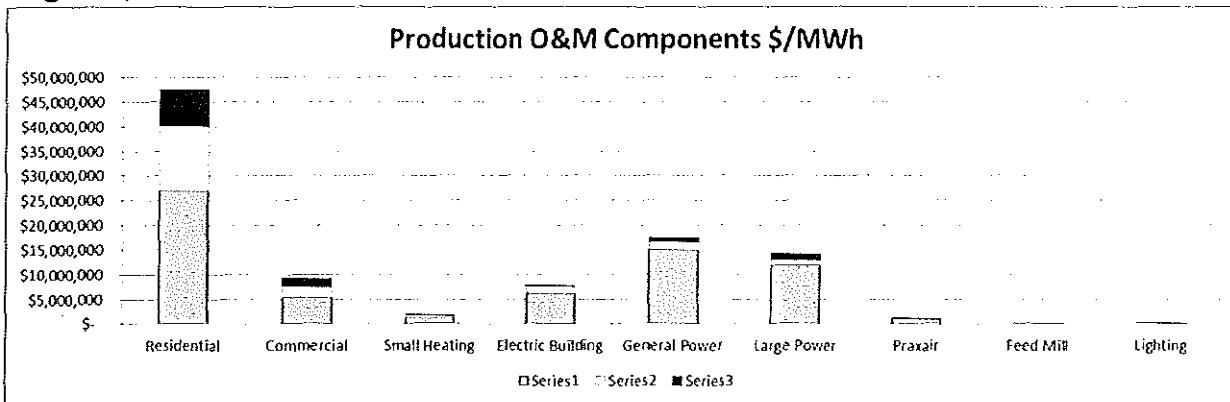
Page 24, Line 2:



Page 24, Line 4:

BIP O&M Allocator										
	Total	Residential	Commercial	Small Heating	Electric Building	General Power	Large Power	Praxair	Feed Mill	Lighting
Base Usage	\$ 68,353,842	\$ 27,058,197	\$ 5,465,964	\$ 1,447,509	\$ 6,200,031	\$ 15,043,463	\$ 11,924,983	\$ 1,204,826	\$ 8,173	\$ 689
Incremental Intermediate Usage	\$ 19,515,190	\$ 13,030,293	\$ 2,028,094	\$ 468,013	\$ 1,460,248	\$ 1,496,197	\$ 1,026,948	\$ -	\$ 5,392	\$ -
Incremental Peak Usage	\$ 11,274,233	\$ 7,303,962	\$ 1,619,862	\$ 110,915	\$ 138,083	\$ 923,713	\$ 1,177,697	\$ -	\$ -	\$ -
Totals:	\$ 99,143,265	\$ 47,392,457	\$ 9,113,921	\$ 2,026,438	\$ 7,798,362	\$ 17,463,373	\$ 14,129,634	\$ 1,204,826	\$ 13,565	\$ 689
BIP O&M Allocator (Energy):		47.80%	9.19%	2.04%	7.87%	17.61%	14.25%	1.22%	0.01%	0.00%

Page 24, Line 6:



Page 35, Line 13, System Average Increase rates of return:

Table 9

	Start RoR	System Average Increase + Energy Efficiency	End RoR
Residential	3.88%	\$ 10,500,874	5.44%
Commercial Service	7.37%	\$ 2,164,607	9.31%
Small Heating	5.03%	\$ 524,546	6.61%
Electric Building	5.88%	\$ 1,886,645	7.49%
General Power	9.69%	\$ 4,509,434	11.66%
Large Power	5.49%	\$ 2,662,902	7.25%
Special Contract	5.16%	\$ 213,511	6.97%
Feed Mill	17.80%	\$ 5,731	20.28%
Lighting	22.33%	\$ 380,490	24.58%