MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

RATE DESIGN

KCP&L GREATER MISSOURI OPERATIONS COMPANY

CASE NO. ER-2016-0156

Jefferson City, Missouri
July 29, 2016

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I. Executive Summary

In Staff's *Revenue Requirement Cost-of-Service Report ("COS Report")* filed July 15, 2016, Staff recommended a revenue requirement for KCP&L Greater Missouri Operations Company ("GMO") at the mid-point return on equity, based on GMO's actual costs through December 31, 2015, at an increase of $3,653,338 over its current revenues recovered from retail rates of approximately $736,000,000. The Staff's revenue requirement, as presented in its *Accounting Schedules* filed July 15, includes a "plug" based on its current estimate of the impact of true-up items on revenue requirement associated with a true-up ending July 31, 2016, based on current information.

As part of GMO's last rate case, Case No. ER-2012-0175, the parties agreed that:

> GMO will perform, prepare and file in its general electric rate case the results of a comprehensive study on the impacts on its retail customers of eliminating MPS and L&P rate districts and implementing company-wide uniform rate classes, and rates and rate elements for each rate class, taking into account the potential future consolidation of GMO rates with those of KCPL. In this study, GMO will provide a distribution of rate impact on each of its customers of moving from MPS to L&P rate structures, and rate elements, and likewise, from L&P to MPS rate structures, and rate elements. If GMO would prefer a class rate structure that is different from a current MPS or L&P class rate structure, then individual customer impacts should be provided for the rate structure that GMO proposes.[1]

GMO has provided the required studies, which will be discussed below in the section "Rate Structures and Designs."

[1] See pages 10 – 11 the *Non-Unanimous Stipulation and Agreement as to Certain Issues* filed October 19, 2012, in Case Nos. ER-2012-0174 and ER-2012-0175, as modified, and Commission *Order Incorporating Unopposed Non-Unanimous Stipulations and Agreements*, November 7, 2012.

In its direct filing, GMO proposed to implement consistent rates for similarly situated customers without regard for that customer's geographic location, and proposed comprehensive changes to its rate structure and rate design. GMO's proposed consolidated rate structure and rate design would bring consistency in rate structure across its service territory, but some level of changes to GMO's currently tariffed rate structures are necessary to effectuate GMO's proposal. The proposed changes to GMO's residential customers' rate structure are minimal. The proposed changes to GMO's General Service and Large Power rate classifications are more significant.

Currently, there are not consistent rate structures or rate designs between GMO's rate districts.[2] The rate structure and design GMO has proposed for consolidated rates incorporates elements of each existing rate structure. However, the differences in rate structures and designs currently tariffed across districts and the further distinctions incorporated in GMO's proposed consolidated structure and design are significant. For example, the structure and design of the L&P rate district's "Large General Service" rate schedule is quite different from the MPS rate district's "Large General Service" rate schedule. GMO's proposed "Large General Service" rate schedule includes some concepts from each, but it is also quite distinct from each. If one were to simply assign all customers currently receiving service on the MPS rate district's or L&P rate district's "Large General Service" rate schedule to the proposed "Large General Service" rate schedule, those customers would likely (1) experience an overall bill increase on a revenue-neutral basis, and (2) be a better fit with a lower annual bill if they were to be served on the proposed consolidated "Small General Service – Demand" rate. This process is further complicated by the fact that for some GMO customers, they would currently receive a lower bill if they were to switch to a different qualifying rate in that customer's current rate district.[3]

While not included in its direct filing, GMO is conducting a "best-fit" process to distribute customers to the newly created classes. This process is necessary to establish the

[2] For example, a customer situated in the L&P rate district that qualifies for service on the L&P rate district Large Power rate schedule, MO944, may qualify for and receive a lower rate under the MPS rate district's rate schedule MO720, which is a Large General Service rate schedule.

[3] For example, the Large Power rate schedules in the L&P rate district are very sensitive to a customer's non-coincident demand. Customers who may have been on that rate schedule since the mid-2000s but have since reduced load either due to energy efficiency or economic reasons could reduce their bills today by switching to the Large General Service rate schedule for the L&P rate district, MO940.

billing determinants that will be used to design the rates ultimately resulting from this case. Discussed in greater detail in the "Billing Determinants" section of this Report, GMO and Staff employed a process of "assigning" customers to a given service classification based on that customer's current classification to create an initial consolidated classification, then employing a "best-fit" placement of customers to the proposed rate classifications. The best-fit placement consists of migrating the billing determinants and associated revenues of those customers who would receive a lower annual bill by switching to a different consolidated service classification. [4]The difference in revenues from what that customer would pay on the assigned classification to what the customer would pay on the best-fit classification will be spread to all classes as part of the overall revenue requirement.[5]

Class-level hourly load information is necessary to produce class-level coincident and non-coincident peak information, among other things. Because the process of reassigning customers and revenues from current rate classifications to consolidated rate classification is unable to provide the hourly loads associated with the final consolidated rate classification, Staff determined that the information needed to produce a reasonably reliable class cost of service study is not available. In the absence of a class cost of service study, Staff prioritizes minimization of customer impact in recommending a rate design for the total-company rate schedules that will be promulgated in the compliance tariff of this case. Similarly, Staff does not recommend any deliberate interclass revenue-neutral shifts to revenue responsibility.[6]

Given the complexity of the best-fit process that is necessary to establish billing determinants, Staff is unable to recommend significant changes to the rate structures and rate designs that GMO has proposed for non-residential customers. For example, if Staff were to design rates that reduce the emphasis on a given customer's non-coincident demand, then it is likely that many customers would best-fit to a different rate schedule than that to which Staff

[4] These best-fit placements of customers and associated billing determinants into classes is based on the rate structures and rate designs GMO has proposed, and would be different if alternative rate structures or designs are ultimately ordered, though the range of difference would depend on the significance of the changes made.

[5] Were the revenue shortfall from the best-fit customer movements to be allocated directly to the receiving class, that class's revenue requirement would necessarily change, which would change that class's rates, which would cause some customers to move out of that class and cause customers to not move into that class, which would impact the level of revenues to be reallocated.

[6] The reassignment and best-fit processes and potential resulting revenue shortfalls will result in some level of interclass revenue responsibility shifts. However, these shifts are not intended to be indicative of intentional shifts resulting from classes over- or under-contributing relative to one another.

and GMO are currently working to move that given customer's determinants. Without that customer's determinants, the rates for the destination schedule would change, and the new rates would result in a different best-fit for other customers.

In summary, while the proposed rate structure and rate designs for the non-residential rate classifications are not what Staff would have proposed, GMO's non-residential rate design is not unreasonable for use in this case, with Staff's recommended condition to file a rate design case as soon as necessary data is available. Given the lack of reliable hourly usage data and firm billing determinants, Staff supports GMO's non-residential rate design. With regard to the residential classifications, customers do not have the ability to freely switch to a non-residential rate schedule. Staff, therefore, recommends a residential rate design that differs from that proposed by GMO.

In general, GMO's proposed structure and design prioritizes revenue recovery stability first, and minimization of customer impact second. In light of the comprehensive nature of GMO's proposal, Staff will identify areas of concern and explain recommended refinements to GMO's proposal, as opposed to providing a ground-up Staff proposal for rate consolidation. This approach is necessary for Staff to have reasonable confidence in the billing determinants calculated from the changes in rate structure.[7]

With an eye towards refining GMO's rates to better implement good rate-making policies including cost causation, Staff recommends that the Commission order GMO to perform load research to sample the newly-consolidated classes. Once a year of hourly data for the new classes is available, Staff recommends that GMO file a rate design case to implement rates that better recognize cost causation and the additional rate design policies that will be discussed in the "Rate Design" section below.

During the pendency of this case, Staff recommends that GMO pursue all reasonable avenues of customer communication to inform customers of the probable changes to each customer's applicable rate design and charge elements. In particular, given the requested changes in the impact of annual customer non-coincident peak on a customer's bill in each month of the year, Staff expects GMO to have communicated the importance of this determinant to customers prior to the start of the summer cooling season. Staff recommends

[7] Customer movement to final rate schedules is contingent on Commission decisions on rate design.

that the parties adopt a method of determining the best-fit rate for customers based on the available customer information, and that those class determinants not be further adjusted for customer switching, other than net growth per class.

Staff recommends that the Commission order GMO to move customers to that best-fit rate beginning with that customer's first bill on the compliance tariffed rates resulting from this case. Staff further recommends the Commission order GMO to work with customers to advise the customer of the changes to that customer's rate schedule, rate elements, likely average annual bill, and likely actual monthly bills. In designing rates to recover the final revenue requirement ordered in this case, Staff recommends that all energy-variable rates for all classes cover the incremental cost of energy at the appropriate voltage as purchased or netted through the SPP Integrated Marketplace, including a reasonable factor for ancillary services. Staff further recommends that residential rates be established as described in the "Rate Design" section of this Report, including a customer charge of $10.71 per customer per month.

Staff recommends the Commission order GMO to do new and/or reassigned load sampling, and to derive new load research data that is appropriate for the classes resulting from this case. Staff recommends the Commission order GMO to file a rate design case upon the completion of one year's worth of load research data. Included in this filing should be (1) a class cost of service study, (2) GMO's proposal to make Time of Use ("ToU") rates available to all customers including a study of applicable ToU determinants, and (3) a study of the reasonableness of modifying GMO's seasonal rates to establish rates for Peak months and Shoulder months, as opposed to GMO's current Summer / Non-Summer seasonal split, including applicable determinants.

Additional recommendations concerning the Fuel Adjustment Clause are provided in that section of this Report.

Staff Experts/Witnesses: Sarah L. Kliethermes, Robin Kliethermes

II. Terms and Concepts

Rate Design

Rate design is the relative pricing of one element of a rate structure to another, within or across classes. Cost causation is typically the driving factor of rate design, although other policies must be considered.[8]

Rate Structure

Rate structure is the composition of the various charges for the utility's products.[9] These include customer charges, energy (usage) charges, demand charges, and facilities charges. More elaborate variations include seasonal variations, time-of-day differentials, declining/inclining block rates, and hours-use rates. These variations send different price signals to customers based on the usage and demand characteristics of the customer and the features of the rate structure, and the relative pricing of the rate design. The most simple rate structures consist of two to five elements, while structures that are more complex may have more than 16 elements.

Many rate elements are seasonally distinguished. The Summer rate is different from those applied in the non-summer months. In addition, not all classes' rates will include all of the following elements:

(1) Customer charge,
(2) Facilities charge,
(3) Demand Charge,
(4) Energy charges, either simple, blocked, hours-of-use, or seasonal,
(5) Reactive demand.

[8] Other important policies include minimization of rate shock to any one customer class or customers within a class, meeting of incremental costs, rate continuity, rate stability, revenue stability, consideration of promotional practices, and impact on energy efficiency policies. For purposes of rate design, cost causation is typically deemed as the distribution of costs that results from the allocation of a vertically integrated utility's gross revenue requirement net of other revenues. It is necessary to make an exception to this general assumption in certain instances when considering costs that would not be incurred but-for a customer, such as the cost of energy purchased through the integrated energy market to serve a customer.

[9] Some revenues are recovered through miscellaneous charges such as line extension policies or bad check fees. These charges are not typically included in the discussion of retail revenue recovery.

A good rate structure is a compromise between the complexity necessary to match cost causation to revenue recovery as precisely as possible and the level of understandability and predictability of bills and revenues desired by utilities, customers, and regulators. The tension between the interest in providing revenue stability and indicating cost causation should also be considered when reasonably designing rates and selecting rate structure components. Changes to rate structure may require additional metering or customer information system investment, and the cost of that investment should be weighed against the benefit of the increased complexity.

Energy

Energy is measured in kilowatt-hours, ("kWh"). "Energy" and "usage" are often used interchangeably for rate design purposes.

Demand

Demand is measured in kilowatts, ("kW"), and refers to the level of energy used in a given hour. Often, when someone refers to a demand, the intended meaning is the peak demand experienced during the referenced time period.

Hourly Loads

Hourly loads are determined from a review of class-level load research data. Load research data is developed by placing "sample meters" at customer locations that record hourly usage for a relatively small number of customers within that class. That usage is then expanded based on the sample-metered customers' share of total class energy for the study period to reflect hourly energy usage for the class for the study period. The "classes" used in load research may be individual classes as they are tariffed, or may be larger "rate groups," such as all general service classes. Load research classes may also be more granular than tariffed classes, such as if hourly data were to be developed for customers taking service under space-heating and general-service schedules within a tariffed class.

Hourly loads developed from load research are the foundation of weather normalization studies as well as class cost of service studies, which is why it is important to have the most accurate load research data for each rate class.

Customer Non-Coincident Peak

Customer non-coincident peak ("NCP") demand is the highest 15 minutes of usage a customer exhibits during the relevant time period. The reference time period may be a billing month, a calendar month, or annually. Customer NCPs can be measured with a "ratchet meter" that physically records the highest point of usage, or by a later review of hourly data captured by an AMI or AMR meter where hourly and sub hourly meter information is retained by billing software.

Class Non-Coincident Peak

Class NCP is the highest level of energy estimated to have been used by a studied class in a given hour of the reference period. The reference period is typically a calendar month or annually.[10] Class NCP is determined from a review of the hourly loads, and can be measured either before or after application of normalization factors.

System Peak

System peak is either (1) the usage determined to have been experienced in the hour that system experienced its peak level of demand for the reference period per hourly data, or (2) the highest level of load metered per transmission-level metering or RTO billing during the reference period.

Class Coincident Peak

Class coincident peak is the amount of energy a class was determined to have used per hourly data in the hour that the system experienced its peak level of demand for the reference period per hourly data.

Customer Coincident Peak (relative to class and system)

Customer coincident peak relative to class is the amount of energy a single customer is metered to have used in the hour that the customer's class experienced its NCP for the reference period per hourly data. Currently, it can only be accurately measured after-the-fact.

[10] If all customers within the class are on the same billing cycle, it may be possible to determine a class NCP for a billing month.

Customer coincident peak relative to system is the amount of energy a single customer is metered to have used in the hour of system peak for the reference period. Currently, it can only be accurately measured after-the-fact.

Billing Determinants

Billing determinants are the quantity of each charge type to be billed to collect an allowed revenue requirement. Every charge type that appears in a company's rate structure must have an associated billing determinant. Energy-related billing determinants are developed from the normalized and annualized usages and revenues Staff developed as part of its Cost of Service filing. Additional billing determinants are developed from actual billing demands during the test period, and from annualized customer counts.

The normalized and annualized usages and revenues developed by Staff serve three purposes in each rate case. The first purpose is to determine the normalized and annualized level of revenue that is generated by existing tariffs. The second purpose is for the development of Net System Input for the calculation of variable fuel and purchased power expenses. Finally, normalized and annualized usage is also used with the ordered revenue requirement resulting from a case to determine the appropriate value for each energy-related rate element to be included in the compliance tariff sheets. This latter usage is commonly referred to as billing determinants.

Staff Expert/Witness: Sarah L. Kliethermes

III. Rate Structures and Designs

In its direct filing, GMO proposed to implement consistent rates for similarly situated customers across all geographic locations, and proposed comprehensive changes to its rate structure and rate design. GMO's proposed consolidated rate structure and rate design would bring consistency in rate structure across its service territory, but some level of changes to GMO's currently tariffed rate structures are necessary to effectuate GMO's proposal. The changes to GMO's residential customers' rate designs structure are minimal. The changes to GMO's General Service and Large Power rate classifications are more significant.

GMO's Proposed Rate Structure

GMO's proposed rate structure includes the following rate elements:

(1) A customer charge, payable as a fixed dollar amount each month regardless of usage. This charge does not vary by billing season. All rate classes include this charge, though the levels vary significantly by class.

(2) A facilities charge, payable as a fixed dollar amount each month regardless of usage in that month. The magnitude of this charge is established by the highest monthly customer's non-coincident peak ("NCP") demand in the prior year including the current month. If the customer has not exceeded the minimum demand for the customer's class, then that minimum demand is used. For example, if a customer had an NCP of 100kW in August and an NCP of 97 in September that customer will be billed a facilities charge based on 100kW every month, unless and until a different peak is set or twelve months have passed and the then-highest peak is used. This charge does not vary by billing season. SGS-Demand, LGS, and LPS classes include this charge.

(3) A demand charge as measured by a customer's NCP. This charge is the sum of two separate calculations.

a. During the summer billing months, a rate is applied to the customer's entire metered NCP demand for the billing month to calculate the demand charge.
b. During non-summer billing months, the charge is calculated by the lesser of that customer's actual NCP demand during the billing month, or the maximum NCP demand that customer experienced during the prior summer.[11]

(4) For example, if a customer had an NCP of 100kW in August and an NCP of 150kW in October, that customer will be billed for 100kW of demand in the October billing month. The rates applied to determine this charge vary by billing season. SGS-Demand, LGS, and LPS classes include this charge.

[11] The maximum NCP demand during the prior summer is defined as that customer's "Annual Base Demand." In non-summer months, the difference between the metered NCP and the prior summer's maximum NCP is defined as "Seasonal Demand." As the tariff is structured, all months are subject to a base billing demand charge and a seasonal billing demand charge. However, as the rates are designed, during the summer billing months both base and seasonal demand are billed at the same rate, and during non-summer billing months, the rate applied to seasonal demand is $0.00/kW.

(5) An energy charge based on kWh consumed. GMO has four distinct methods for calculating the energy charge, which vary by customer class. For all rate classes, the rates applied to determine this charge vary by billing season.

a. A charge comprised of a summer rate applicable to "All kWh", and a non-summer rate applicable to "All kWh". For the Residential "Other Use" class, the same charge applies to each kWh used, though the charge does vary by season.

b. A charge comprised of rates applicable to "Base Energy", with "Seasonal Energy" blocks. For the SGS Non-Demand classifications, during the summer billing months, all kWh are billed at the same given rate. During the non-summer billing months, usage up to the level of that customer's highest usage during one of the prior summer's billing month's is billed at one rate, and usage in excess of that level is billed at a different rate.[12] The rate for this second block of usage applicable to customers having greater non-summer usage than summer usage is designed at a declining (lower) price. The rates applied to determine this charge vary by billing season.

c. A volumetrically blocked energy charge comprised of rates applicable to usage within specified volumes. For Residential and Residential space heating customers, different rates may be applied to usage from 0 – 600kWh, 601 – 1000kWh, and usage over 1,001kWh. During the summer billing months the same rate is applied to all kWh across all volumetric blocks of usage. During the non-summer billing months the rates applied are designed at a declining (lower) price as usage progresses through the volumetric blocks.

d. An hours-of-use blocked energy charge, with "Base Energy Charge" and "Seasonal Energy Charge" blocks. Hours-of-use is a method of blocking the price of energy sales in a given billing month to a given customer based on the relationship of that customer's usage to the applicable demand, usually that customer's NCP during that billing month. Typical Hours-of-use break points are at 180 Hours' Use and at 360 Hours' Use. For example, to determine usage relative to 180 Hours' Use, a customer's energy usage for a billing month is divided

[12] The maximum energy usage during the prior summer is defined as that customer's "Annual Base Energy." In non-summer months, the difference between the metered energy usage and the prior summer's maximum energy usage is defined as "Seasonal Energy." As the tariff is structured, all months are subject to a base energy charge and a seasonal energy charge. However, as the rates are designed, during the summer billing months both base and seasonal energy are billed at the same rate.

by that customer's metered NCP for that billing month to find the customer's monthly hours of use, and if the result is over 180 then multiply the customer's metered NCP demand by180. The volume of kWh sold up to the resulting number would be billed at the first 180 Hours' Use rate. Usage up to double that resulting number would be billed at the next 180 Hours' Use rate. Usage over double that resulting number would be billed at the Hours' Use over 360 rate.

For SGS-Demand customers, the blocks are based on usage above and below 180 Hours' Use. For LGS and LPS customers, the blocks are based on usage below 180 Hours' Use, usage for the next 180 Hours' Use, and usage over 360 Hours' Use. Energy within those hours-of-use blocks is further distinguished into "Base" and "Seasonal" energy portions, in the same ratio as base to seasonal demand is billed for that same customer within the same billing month. In the summer billing months, for a given hours-of-use block, the seasonal energy rate is set equal to the base energy rate, with the prices declining from the first hours-of-use block to the last hours-of-use block. For the non-summer billing months, for a given hours-of-use block, the seasonal energy rates in all blocks are set at the same price and that price is lower than that of any base energy rate in any hours-of-use block. For the non-summer billing months, the base energy rates decline from the first hours-of-use block to the last hours-of-use block.

For example, assume a LGS-Demand customer in the month of February had a metered demand of 189kW with a base demand of 175kW leaving 14kW to be billed as seasonal demand. If that customer used 77,082kWh of energy then there would be 34,020kWh of energy billed in the first 180 Hours' Use, 34,020kWh of energy in the next 180 Hours' Use, and 9,042 kWh of energy over 360 Hours' Use. The ratio for that billing month of base demand to seasonal demand is .08, so in the first 180 Hours' Use, that customer would be billed for 201kWh at the seasonal energy rate, and 2,319kWh at that block's base energy rate. For the next 180 Hours' Use, that customer would be billed for 201kWh at the seasonal energy rate, and 2,319kWh at that block's base energy rate. For the Hours' Use over 360, that customer would be billed for 53kWh at the seasonal energy rate, and for 617kWh of usage at that block's base energy rate.

(6) A Reactive Demand Adjustment is charged to LPS customers when the reactive demand in kVar is greater or less than 50% of that customer's NCP demand in kW for that billing month. This charge does not vary by billing season.[13]

Many of these rate elements are seasonally distinguished, in that the "Summer" rate applicable to the months of June, July, August, and September, is different from those applied in the "Winter" month.[14] Not all classes' rates will include all of the previously described elements.

Rate Structures of Existing Classes

Provided below is a brief description of current rate class designations for customers in GMO's MPS rate district. Each of these rate structures also includes a customer charge.

MPS Rate District Rate Schedules	Rate Structure	Minimum Demand[15]
MPS Rate District Residential		
Res General Use	First 600 kWh, Next 400 kWh, Over 1000 kWh (inclining block summer rate design, declining in winter)	
Res with SH	First 600 kWh, Next 400 kWh, Over 1000 kWh	
Res Other Use	No blocked energy charge, but seasonal differentiation	
Res Net Metering General Use	Same as Res General Use	
Res Net Metering with SH	Same as Res Space Heating	

[13] Reactive demand is separately accounted for in billing where large customers have large loads that impact the relationship of energy and voltage.

[14] GMO uses the term "Winter" in its proposed tariff. Staff prefers the term "Non-Summer" as more meaningful to customers and accurate.

[15] The minimum demand requirements set guidelines for the size of customers in the class. It is also the minimum that a customer must pay as part of the demand charge component of the rate design. A customer's qualification for a non-demand rate may be determined by that customer's maximum kWh usage not exceeding a specified threshold.

MPS Rate District Rate Schedules	Rate Structure	Minimum Demand
MPS Rate District Small General Service		
SGS No Demand	No Demand Charge, Base and Seasonal Usage	< 5,400 kWh
SGS Short Term	No Demand Charge, No Blocked Energy Charge	<5,400 kWh
SGS Secondary	Demand Charge, Base and Seasonal Hours of Use (First 180, Next 180, Over 360)	
SGS Primary	Demand Charge, Base and Seasonal Hours of Use (First 180, Next 180, Over 360)	
SGS Net Metering No Demand	No Demand Charge, Base and Seasonal Usage	
SGS Net Metering Demand	Demand Charge, Base and Seasonal Hours of Use rate design	
MPS Rate District Large General Service		
LGS Secondary	Demand Charge, Base and Seasonal Hours of Use (First 180, Next 180, Over 360)	100 kW
LGS Primary	Demand Charge, Base and Seasonal Hours of Use (First 180, Next 180, Over 360)	100 kW
LGS Secondary Net Metering	Demand Charge, Base and Seasonal Hours of Use (First 180, Next 180, Over 360)	100 kW
MPS Rate District Large Power Service		
LPS Secondary	Demand Charge, Base and Seasonal Hours of Use (First 180, Next 180, Over 360)	500 kW
LPS Net Metering Secondary	Demand Charge, Base and Seasonal Hours of Use (First 180, Next 180, Over 360)	500 kW
LPS Primary	Demand Charge, Base and Seasonal Hours of Use (First 180, Next 180, Over 360)	500 kW
LPS Real Time Pricing Primary	No customers	500 kW

Provided below is a brief description of current rate class designations for customers in GMO's L&P rate district. A customer charge is included in the rate structures of the residential classes and the SGS non-demand classes. The SGS demand, LGS, and LPS class rate structures do not include a customer charge, however these class structures do feature a minimum facilities charge that varies by the class minimum demand.

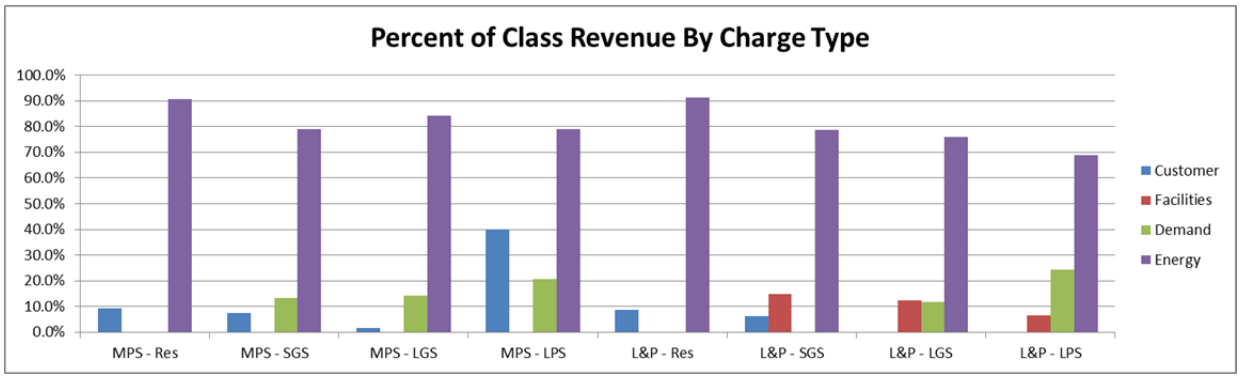
L&P Rate District Rate Schedules	Rate Design	Minimum Demand
L&P Rate District Residential		
Res General Use	First 650 kWh and Over 650 kWh (flat rate for summer, declining for winter)	
Res General Use Multiple Occupancy	First 650 kWh and Over 650 kWh	
Res Other Use	Seasonally differentiated kWh charge	
Res with Space Heating	First 1,000 kWh and Over 1,000 kWh	
Res with Space Heating Multiple Occupancy	First 1,000 kWh and Over 1,000 kWh	
Res Separately Metered Space Heating / Water Heating	Seasonally differentiated kWh charge	
Res Net Metering General	First 650 kWh and Over 650 kWh	
Res Net Metering Space Heating	First 1,000 kWh and Over 1,000 kWh	
L&P Rate District General Service		
GS Short Term	Seasonally differentiated kWh charge	<3,000 kWh
GS Limited Demand	Seasonally differentiated kWh charge	<3,000 kWh
GS General Use	Facilities demand charge and Hours of Use (First 150 hours, over 150)	
GS Separately Metered Space Heating / Water Heating	Seasonally differentiated kWh charge	
GS Net Metering Limited Demand	Seasonally differentiated kWh charge	
GS Net Metering Demand	Facilities demand charge and Hours of Use rate design (same as GS General Use)	
L&P Rate District Large General Service		
LGS Primary	Demand & Facilities charge and Hours of Use (First 200 hours, over 200 hours)	40 kW
LGS Substation	Demand & Facilities charge and Hours of Use (First 200 hours, over 200 hours)	40 kW
LGS Secondary	Demand & Facilities charge and Hours of Use (First 200 hours, over 200 hours)	40 kW
LGS Net Metering Secondary	Demand & Facilities charge and Hours of Use (First 200 hours, over 200 hours)	40 kW

L&P Rate District Rate Schedules	Rate Design	Minimum Demand
L&P Rate District Large Power Service		
LPS ToU Secondary	Demand & Facilities Charge and On-Peak/Off Peak seasonal rate design	500 kW
LPS ToU Primary	Demand & Facilities Charge and On-Peak/Off Peak seasonal rate design	500 kW
LPS ToU Substation	Demand & Facilities Charge and On-Peak/Off Peak seasonal rate design	500 kW
LPS ToU Transmission	Demand & Facilities Charge and On-Peak/Off Peak seasonal rate design	500 kW

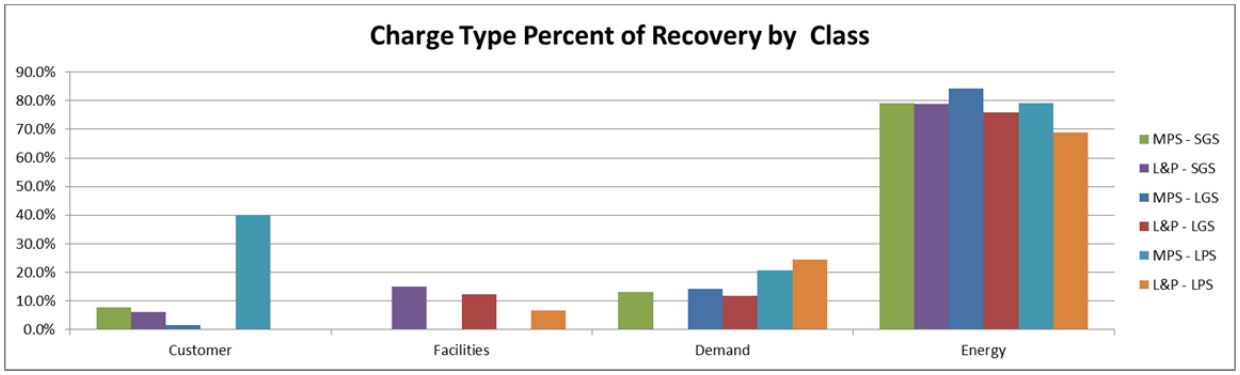
Revenue Recovery of Existing Classes

The percent of class revenue provided by each type of rate element for each current major customer rate classification in each existing rate district are provided in the table and graph below.

Percent of Class Revenue by Charge Type				
	Customer	Facilities	Demand	Energy
MPS - Res	9.2%	0.0%	0.0%	90.8%
MPS - SGS	7.6%	0.0%	13.3%	79.1%
MPS - LGS	1.6%	0.0%	14.2%	84.2%
MPS - LPS	40.0%	0.0%	20.6%	79.0%
L&P - Res	8.8%	0.0%	0.0%	91.2%
L&P - SGS	6.2%	15.0%	0.0%	78.8%
L&P - LGS	0.0%	12.4%	11.8%	75.8%
L&P - LPS	0.0%	6.6%	24.5%	68.9%



Energy charges provide most of the revenue for most of the existing classes. However, for classes relying on an hours-use rate structure, the customer's NCP demand for a given month is used to determine the portion of energy charged at each blocked energy rate. Similarly, for classes using seasonal energy weighting, an annual measure of demand is used to weight the energy between seasonal and base energy rates. These relationships must be considered in evaluating the relative recovery between "energy" rate elements that would typically be considered "fixed." Provided below is a comparison of the percent of revenue of each existing non-residential class provided by each charge type.



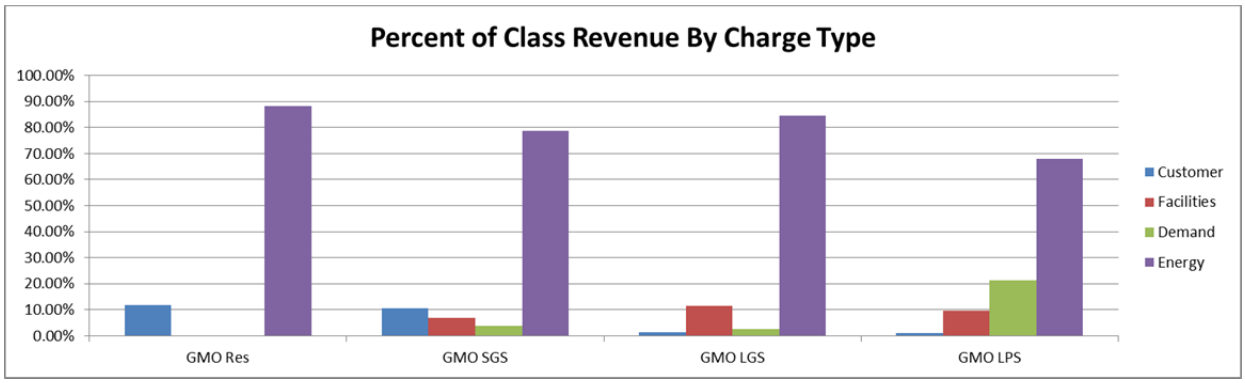
This graph illustrates that the lowest percentages of recovery from energy charges are in the existing L&P LPS class, where approximately 69% of class revenue, on average, is billed on energy sales. The highest percentages of recovery from energy charges are in the MPS LGS class, where 88% of class revenue is billed on energy sales. On average, energy-related revenues account for percentages in the mid-to-upper 70s of class revenues.

Revenue Recovery of Proposed Classes

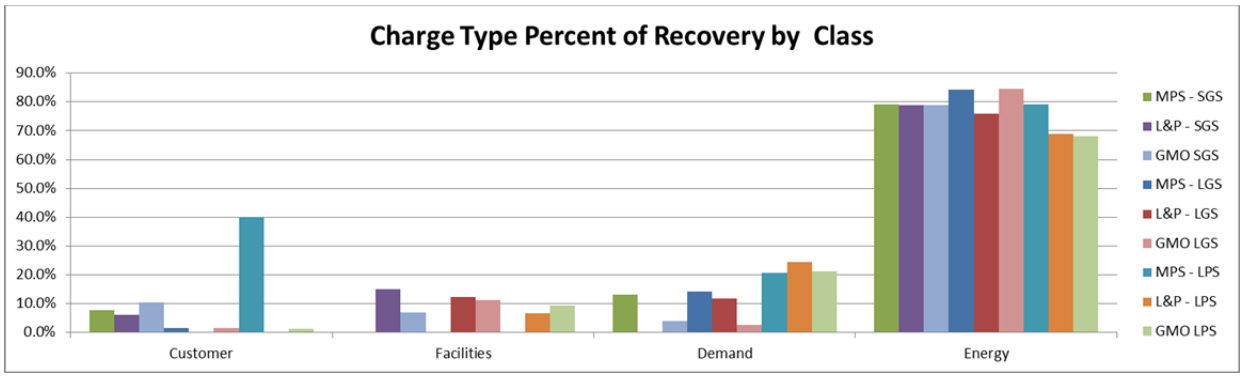
The percent of class revenue provided by each type of rate element that GMO has requested for each proposed major customer classification for uniform rates are provided in the table and graph below. These percentages are derived from customers' placement within their new best-fit rate.[16]

[16] As discussed in the "Class Billing Determinants" section, there is significant movement of customers among these classes from the nominal assignment starting point to the final best-fit final rate classification.

Percent of Class Revenue by Charge Type				
	Customer	Facilities	Demand	Energy
GMO Res	11.8%	0.0%	0.0%	88.2%
GMO SGS	10.5%	6.8%	3.9%	78.8%
GMO LGS	1.5%	11.3%	2.7%	84.5%
GMO LPS	1.2%	9.5%	21.2%	68.1%



Provided below is a comparison of the percent of revenue of each existing non-residential class and the proposed classes provided by each charge type.



This graph illustrates that GMO's proposed LPS class will provide the lowest percentage of revenue recovery from an energy charge. However, because the revenues from GMO uniform rates are based on the best-fit reassignment of customers, some amount of this difference is attributable to the retention of customers with higher load factors and minimum demands on the LPS class, while other customers were migrated to the LGS class. These migrations are discussed more fully in the "Class Billing Determinants" section below.

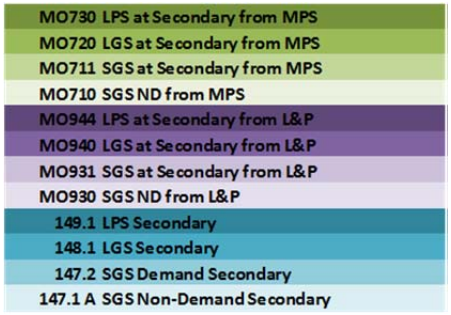
GMO Rate Studies

As part of GMO's last rate case, Case No. ER-2012-0175, the parties agreed that:

> GMO will perform, prepare and file in its general electric rate case the results of a comprehensive study on the impacts on its retail customers of eliminating MPS and L&P rate districts and implementing company-wide uniform rate classes, and rates and rate elements for each rate class, taking into account the potential future consolidation of GMO rates with those of KCPL. In this study, GMO will provide a distribution of rate impact on each of its customers of moving from MPS to L&P rate structures, and rate elements, and likewise, from L&P to MPS rate structures, and rate elements. If GMO would prefer a class rate structure that is different from a current MPS or L&P class rate structure, then individual customer impacts should be provided for the rate structure that GMO proposes.[17]

Staff has reviewed the studies GMO has provided. Staff has determined that, as a whole, customers experience less variation in bills by migrating to GMO's proposed classes than customers would experience from a given rate district's customers migrating to the other rate district's structure and rates.

For example, provided below are a sample of average annual bills that would be experienced for a given customer under GMO's proposed rate structures and designs, versus GMO's existing district-specific rate structures and designs, escalated to account for GMO's requested rate increase. Each set of rows reflects a particular customer load shape across the year, and moving left to right reflects that same load shape at a different level of demand.[18] For each demand, an increase and decrease of 10% of energy usage is provided. The rate codes and name of each class for each rate structure are provided for reference.



[17] See pages 10 – 11 the *Non-Unanimous Stipulation and Agreement as to Certain Issues* filed October 19, 2012, in Case Nos. ER-2012-0174 and ER-2012-0175, as modified, and Commission *Order Incorporating Unopposed Non-Unanimous Stipulations and Agreements*, November 7, 2012.

[18] Given the data-intensive nature of this exercise, only a very small sample is provided below for illustrative purposes.

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Demand Scaler	10	10	10	20	20	20	50	50	50	100	100	100	500	500	500
Energy Scaler	90%	100%	110%	90%	100%	110%	90%	100%	110%	0.9	1	1.1	0.9	1	1.1
MPS	MO711	MO711	MO711	MO711	MO711	MO711	MO711	MO711	MO711	MO720	MO720	MO720	MO720	MO720	MO720
Total $:	$ 3,655	$ 3,928	$ 4,201	$ 7,026	$ 7,570	$ 8,114	$ 17,063	$ 18,416	$ 19,770	$ 32,594	$ 35,101	$ 37,608	$ 155,192	$ 167,796	$ 180,400
$/kWh:	$ 0.08233	$ 0.07963	$ 0.07743	$ 0.07914	$ 0.07675	$ 0.07478	$ 0.07689	$ 0.07469	$ 0.07289	$ 0.07344	$ 0.07118	$ 0.06933	$ 0.06993	$ 0.06805	$ 0.06651
Energy-dependant $:	$ 2,999	$ 3,272	$ 3,546	$ 5,945	$ 6,489	$ 7,033	$ 14,710	$ 16,064	$ 17,417	$ 26,708	$ 29,215	$ 31,722	$ 134,408	$ 147,011	$ 159,615
Demand-dependant $:	$ 431	$ 431	$ 431	$ 857	$ 857	$ 857	$ 2,128	$ 2,128	$ 2,128	$ 5,020	$ 5,020	$ 5,020	$ 19,918	$ 19,918	$ 19,918
Fixed $:	$ 224	$ 224	$ 224	$ 224	$ 224	$ 224	$ 224	$ 224	$ 224	$ 866	$ 866	$ 866	$ 866	$ 866	$ 866
Energy-dependant %:	82%	83%	84%	85%	86%	87%	86%	87%	88%	82%	83%	84%	87%	88%	88%
L&P	MO931	MO931	MO931	MO931	MO931	MO940	MO940	MO940	MO940	MO940	MO940	MO940	MO940	MO940	MO940
Total $:	$ 4,863	$ 5,294	$ 5,725	$ 9,563	$ 10,425	$ 11,141	$ 20,367	$ 21,886	$ 23,404	$ 39,134	$ 42,171	$ 45,208	$ 189,286	$ 204,470	$ 219,655
$/kWh:	$ 0.10956	$ 0.10734	$ 0.10553	$ 0.10773	$ 0.10569	$ 0.10269	$ 0.09178	$ 0.08876	$ 0.08629	$ 0.08817	$ 0.08551	$ 0.08334	$ 0.08530	$ 0.08292	$ 0.08098
Energy-dependant $:	$ 4,305	$ 4,736	$ 5,167	$ 8,598	$ 9,460	$ 7,431	$ 15,513	$ 17,031	$ 18,550	$ 31,011	$ 34,047	$ 37,084	$ 155,012	$ 170,196	$ 185,380
Demand-dependant $:	$ -	$ -	$ -	$ 408	$ 408	$ 1,879	$ 3,024	$ 3,024	$ 3,024	$ 6,292	$ 6,292	$ 6,292	$ 32,444	$ 32,444	$ 32,444
Fixed $:	$ 558	$ 558	$ 558	$ 558	$ 558	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831
Energy-dependant %:	89%	89%	90%	90%	91%	67%	76%	78%	79%	79%	81%	82%	82%	83%	84%
Consolidated	147.2	147.2	147.2	147.2	147.2	147.2	147.2	147.2	148.1	148.1	148.1	148.1	148.1	148.1	149.1
Total $:	$ 4,936	$ 5,316	$ 5,695	$ 8,628	$ 9,387	$ 10,146	$ 20,450	$ 22,347	$ 24,192	$ 37,262	$ 39,610	$ 41,958	$ 172,663	$ 184,404	$ 195,817
$/kWh:	$ 0.11120	$ 0.10778	$ 0.10498	$ 0.09719	$ 0.09516	$ 0.09351	$ 0.09215	$ 0.09063	$ 0.08919	$ 0.08395	$ 0.08032	$ 0.07735	$ 0.07780	$ 0.07479	$ 0.07219
Energy-dependant $:	$ 3,700	$ 4,079	$ 4,459	$ 7,391	$ 8,150	$ 8,909	$ 18,456	$ 20,353	$ 17,799	$ 30,869	$ 33,217	$ 35,565	$ 154,206	$ 165,948	$ 123,847
Demand-dependant $:	$ 913	$ 913	$ 913	$ 913	$ 913	$ 913	$ 1,670	$ 1,670	$ 5,481	$ 5,481	$ 5,481	$ 5,481	$ 17,545	$ 17,545	$ 63,810
Fixed $:	$ 324	$ 324	$ 324	$ 324	$ 324	$ 324	$ 324	$ 324	$ 912	$ 912	$ 912	$ 912	$ 912	$ 912	$ 8,160
Energy-dependant %:	75%	77%	78%	75%	87%	88%	90%	91%	74%	83%	84%	85%	89%	90%	63%
Lowest Rate:	$ 0.0823	$ 0.0796	$ 0.0774	$ 0.0791	$ 0.0767	$ 0.0748	$ 0.0769	$ 0.0747	$ 0.0729	$ 0.0734	$ 0.0712	$ 0.0693	$ 0.0699	$ 0.0681	$ 0.0665
Lowest Rate:	MO711	MO711	MO711	MO711	MO711	MO711	MO711	MO711	MO711	MO720	MO720	MO720	MO720	MO720	MO720
Lowest % Energy:	75%	77%	78%	75%	86%	67%	76%	78%	74%	79%	81%	82%	82%	83%	63%
Lowest % Energy:	147.2	147.2	147.2	147.2	MO711	MO940	MO940	MO940	148.1	MO940	MO940	MO940	MO940	MO940	149.1

Retail 688

Customer Shape	Retail 688	Retail 688	Retail 688	Retail 688	Retail 688	Retail 688	Retail 688	Retail 688	Retail 688	Retail 688	Retail 688	Retail 688	Retail 688	Retail 688	Retail 688
Demand Scaler	10	10	10	20	20	20	50	50	50	100	100	100	500	500	500
Energy Scaler	0.9	1	1.1	0.9	1	1.1	90%	100%	110%	0.9	1	1.1	0.9	1	1.1
MPS	MO711	MO711	MO711	MO711	MO711	MO711	MO711	MO711	MO711	MO720	MO720	MO720	MO720	MO720	MO720
Total $:	$ 4,180	$ 4,503	$ 4,827	$ 7,966	$ 8,605	$ 9,243	$ 19,388	$ 20,976	$ 22,563	$ 36,377	$ 39,305	$ 42,233	$ 175,348	$ 190,103	$ 204,857
$/kWh:	$ 0.08079	$ 0.07833	$ 0.07632	$ 0.07698	$ 0.07484	$ 0.07308	$ 0.07495	$ 0.07298	$ 0.07136	$ 0.07031	$ 0.06837	$ 0.06679	$ 0.06778	$ 0.06614	$ 0.06479
Energy-dependant $:	$ 3,525	$ 3,848	$ 4,172	$ 6,886	$ 7,524	$ 8,162	$ 17,036	$ 18,623	$ 20,211	$ 30,630	$ 33,558	$ 36,486	$ 154,575	$ 169,329	$ 184,084
Demand-dependant $:	$ 431	$ 431	$ 431	$ 857	$ 857	$ 857	$ 2,128	$ 2,128	$ 2,128	$ 4,881	$ 4,881	$ 4,881	$ 19,907	$ 19,907	$ 19,907
Fixed $:	$ 224	$ 224	$ 224	$ 224	$ 224	$ 224	$ 224	$ 224	$ 224	$ 866	$ 866	$ 866	$ 866	$ 866	$ 866
Energy-dependant %:	84%	85%	86%	86%	87%	88%	88%	89%	90%	84%	85%	86%	88%	89%	90%
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
L&P	MO931	MO931	MO931	MO931	MO940	MO940	MO940	MO940	MO940	MO940	MO940	MO940	MO940	MO940	MO940
Total $:	$ 5,477	$ 5,974	$ 6,471	$ 10,778	$ 11,527	$ 12,232	$ 22,606	$ 24,368	$ 26,131	$ 43,606	$ 47,132	$ 50,657	$ 211,640	$ 229,266	$ 246,892
$/kWh:	$ 0.10585	$ 0.10391	$ 0.10232	$ 0.10415	$ 0.10026	$ 0.09672	$ 0.08738	$ 0.08478	$ 0.08265	$ 0.08428	$ 0.08199	$ 0.08011	$ 0.08181	$ 0.07976	$ 0.07809
Energy-dependant $:	$ 4,919	$ 5,416	$ 5,913	$ 9,812	$ 7,817	$ 8,522	$ 17,751	$ 19,514	$ 21,276	$ 35,483	$ 39,008	$ 42,533	$ 177,365	$ 194,991	$ 212,617
Demand-dependant $:	$ -	$ -	$ -	$ 408	$ 1,879	$ 1,879	$ 3,024	$ 3,024	$ 3,024	$ 6,292	$ 6,292	$ 6,292	$ 32,444	$ 32,444	$ 32,444
Fixed $:	$ 558	$ 558	$ 558	$ 558	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831
Energy-dependant %:	90%	91%	91%	91%	68%	70%	79%	80%	81%	81%	83%	84%	84%	85%	86%
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated	147.2	147.2	147.2	147.2	147.2	147.2	147.2	148.1	148.1	148.1	148.1	148.1	148.1	149.1	149.1
Total $:	$ 5,493	$ 5,933	$ 6,374	$ 9,735	$ 10,616	$ 11,497	$ 23,247	$ 25,092	$ 26,456	$ 41,012	$ 43,741	$ 46,469	$ 191,525	$ 202,538	$ 213,540
$/kWh:	$ 0.10616	$ 0.10321	$ 0.10079	$ 0.09408	$ 0.09233	$ 0.09091	$ 0.08986	$ 0.08730	$ 0.08367	$ 0.07927	$ 0.07609	$ 0.07349	$ 0.07404	$ 0.07047	$ 0.06754
Energy-dependant $:	$ 4,256	$ 4,697	$ 5,137	$ 8,499	$ 9,380	$ 10,260	$ 21,226	$ 18,699	$ 20,063	$ 34,619	$ 37,348	$ 40,076	$ 172,951	$ 130,568	$ 141,570
Demand-dependant $:	$ 913	$ 913	$ 913	$ 913	$ 913	$ 913	$ 1,698	$ 5,481	$ 5,481	$ 5,481	$ 5,481	$ 5,481	$ 17,662	$ 63,810	$ 63,810
Fixed $:	$ 324	$ 324	$ 324	$ 324	$ 324	$ 324	$ 324	$ 912	$ 912	$ 912	$ 912	$ 912	$ 912	$ 8,160	$ 8,160
Energy-dependant %:	77%	79%	81%	87%	88%	89%	91%	75%	76%	84%	85%	86%	90%	64%	66%
Lowest Rate:	$ 0.0808	$ 0.0783	$ 0.0763	$ 0.0770	$ 0.0748	$ 0.0731	$ 0.0749	$ 0.0730	$ 0.0714	$ 0.0703	$ 0.0684	$ 0.0668	$ 0.0678	$ 0.0661	$ 0.0648
Lowest Rate:	MO711	MO711	MO711	MO711	MO711	MO711	MO711	MO711	MO711	MO720	MO720	MO720	MO720	MO720	MO720
Lowest % Energy:	77%	79%	81%	86%	68%	70%	79%	75%	76%	81%	83%	84%	84%	64%	66%
Lowest % Energy:	147.2	147.2	147.2	MO711	MO940	MO940	MO940	148.1	148.1	MO940	MO940	MO940	MO940	149.1	149.1

Warehouse 928

Customer Shape	Warehouse	Warehouse	Warehouse	Warehouse	Warehouse	Warehouse	Warehouse	Warehouse	Warehouse	Warehouse	Warehouse	Warehouse	Warehouse	Warehouse	Warehouse
Demand Scaler	10	10	10	20	20	20	50	50	50.00	100.00	100.00	100	500	500	500
Energy Scaler	90%	100%	110%	90%	100%	110%	90%	100%	110%	90%	100%	110%	90%	100%	110%
MPS	MO711	MO711	MO711	MO711	MO711	MO711	MO720	MO720	MO720	MO720	MO720	MO720	MO730	MO730	MO730
Total $:	$ 5,309	$ 5,737	$ 6,165	$ 10,248	$ 11,097	$ 11,945	$ 24,287	$ 26,127	$ 27,967	$ 45,001	$ 48,858	$ 52,715	$ 216,513	$ 232,544	$ 248,574
$/kWh:	$ 0.08132	$ 0.07909	$ 0.07726	$ 0.07849	$ 0.07649	$ 0.07485	$ 0.07441	$ 0.07204	$ 0.07010	$ 0.06893	$ 0.06736	$ 0.06607	$ 0.06633	$ 0.06412	$ 0.06231
Energy-dependant $:	$ 4,654	$ 5,082	$ 5,510	$ 9,167	$ 10,016	$ 10,864	$ 18,790	$ 20,630	$ 22,470	$ 39,751	$ 43,608	$ 47,464	$ 168,082	$ 184,113	$ 200,144
Demand-dependant $:	$ 431	$ 431	$ 431	$ 857	$ 857	$ 857	$ 4,631	$ 4,631	$ 4,631	$ 4,384	$ 4,384	$ 4,384	$ 46,107	$ 46,107	$ 46,107
Fixed $:	$ 224	$ 224	$ 224	$ 224	$ 224	$ 224	$ 866	$ 866	$ 866	$ 866	$ 866	$ 866	$ 2,324	$ 2,324	$ 2,324
Energy-dependant %:	88%	89%	89%	89%	90%	91%	77%	79%	80%	88%	89%	90%	78%	79%	81%
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
L&P	MO931	MO931	MO931	MO940	MO940	MO940	MO940	MO940	MO940	MO940	MO940	MO940	MO940	MO940	MO940
Total $:	$ 6,620	$ 7,240	$ 7,859	$ 12,502	$ 13,387	$ 14,273	$ 26,814	$ 29,027	$ 31,240	$ 52,014	$ 56,440	$ 60,867	$ 253,641	$ 275,774	$ 297,908
$/kWh:	$ 0.10141	$ 0.09981	$ 0.09850	$ 0.09575	$ 0.09228	$ 0.08944	$ 0.08215	$ 0.08004	$ 0.07831	$ 0.07968	$ 0.07781	$ 0.07629	$ 0.07771	$ 0.07604	$ 0.07468
Energy-dependant $:	$ 6,062	$ 6,681	$ 7,301	$ 8,792	$ 9,677	$ 10,562	$ 21,959	$ 24,172	$ 26,386	$ 43,890	$ 48,317	$ 52,744	$ 219,366	$ 241,500	$ 263,633
Demand-dependant $:	$ -	$ -	$ -	$ 1,879	$ 1,879	$ 1,879	$ 3,024	$ 3,024	$ 3,024	$ 6,292	$ 6,292	$ 6,292	$ 32,444	$ 32,444	$ 32,444
Fixed $:	$ 558	$ 558	$ 558	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831	$ 1,831
Energy-dependant %:	92%	92%	93%	70%	72%	74%	82%	83%	84%	84%	86%	87%	86%	88%	88%
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consolidated	147.2	147.2	147.2	147.2	147.2	147.2	148.1	148.1	148.1	148.1	148.1	148.1	149.1	149.1	149.1
Total $:	$ 6,524	$ 7,076	$ 7,629	$ 11,799	$ 12,905	$ 14,011	$ 27,497	$ 29,212	$ 30,927	$ 48,529	$ 51,959	$ 55,389	$ 219,840	$ 233,687	$ 247,534
$/kWh:	$ 0.09992	$ 0.09755	$ 0.09562	$ 0.09037	$ 0.08896	$ 0.08780	$ 0.08424	$ 0.08055	$ 0.07752	$ 0.07434	$ 0.07163	$ 0.06942	$ 0.06735	$ 0.06444	$ 0.06205
Energy-dependant $:	$ 5,287	$ 5,840	$ 6,393	$ 10,563	$ 11,669	$ 12,775	$ 21,104	$ 22,819	$ 24,534	$ 42,136	$ 45,566	$ 48,996	$ 147,870	$ 161,717	$ 175,564
Demand-dependant $:	$ 913	$ 913	$ 913	$ 913	$ 913	$ 913	$ 5,481	$ 5,481	$ 5,481	$ 5,481	$ 5,481	$ 5,481	$ 63,810	$ 63,810	$ 63,810
Fixed $:	$ 324	$ 324	$ 324	$ 324	$ 324	$ 324	$ 912	$ 912	$ 912	$ 912	$ 912	$ 912	$ 8,160	$ 8,160	$ 8,160
Energy-dependant %:	81%	83%	84%	90%	90%	91%	77%	78%	79%	87%	88%	88%	67%	69%	71%
Lowest Rate:	$ 0.0813	$ 0.0791	$ 0.0773	$ 0.0785	$ 0.0765	$ 0.0749	$ 0.0744	$ 0.0720	$ 0.0701	$ 0.0689	$ 0.0674	$ 0.0661	$ 0.0663	$ 0.0641	$ 0.0620
Lowest Rate:	MO711	MO711	MO711	MO711	MO711	MO711	MO720	MO720	MO720	MO720	MO720	MO720	MO730	MO730	149.1
Lowest % Energy:	81%	83%	84%	70%	72%	74%	77%	78%	79%	84%	86%	87%	67%	69%	71%
Lowest % Energy:	147.2	147.2	147.2	MO940	MO940	MO940	148.1	148.1	148.1	MO940	MO940	MO940	149.1	149.1	149.1

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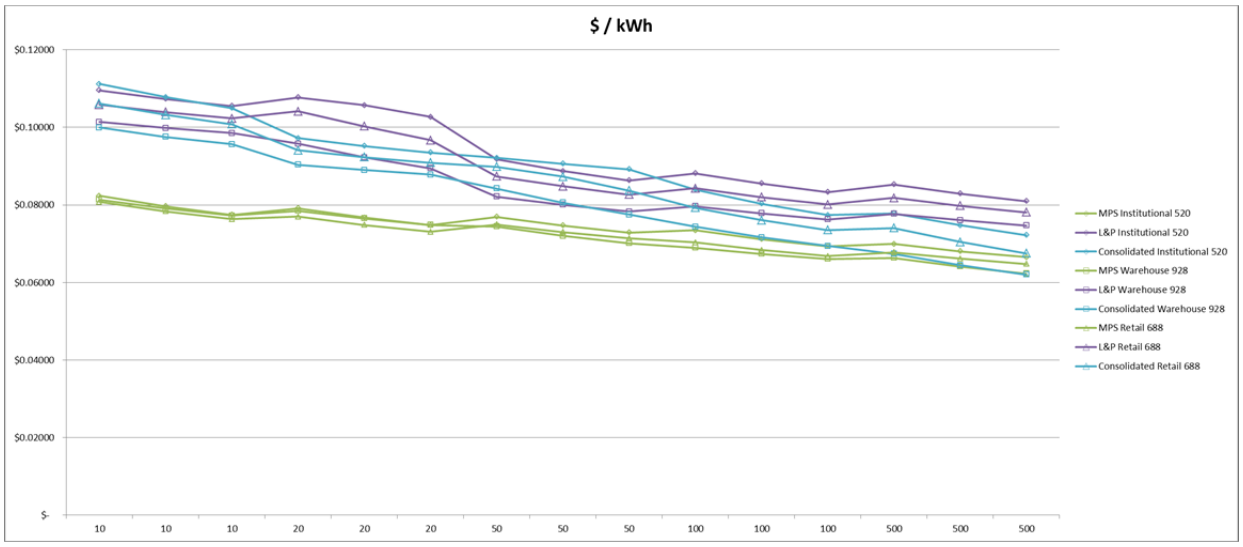
This indicates that the name of the rate classification under which a given customer would receive the lowest average annual bill varies across GMO's existing and proposed rate classifications. Put another way, the same customer would experience different annual bills, on a different rate code, with a different percentage of their bill related directly to energy usage depending on whether that customer is in the MPS rate district or the L&P rate district. GMO's proposal eliminates that distinction.

As illustrated below, across all customer shapes, rate districts, and classes, customers tend to experience a lower average annual bill as usage increases.



As illustrated below, across most customer shapes and demand levels, the portion of a customer's bill that is based on that customer's NCP demand is higher under GMO's proposed rate structure and design than under the existing structures and designs of the rate districts.

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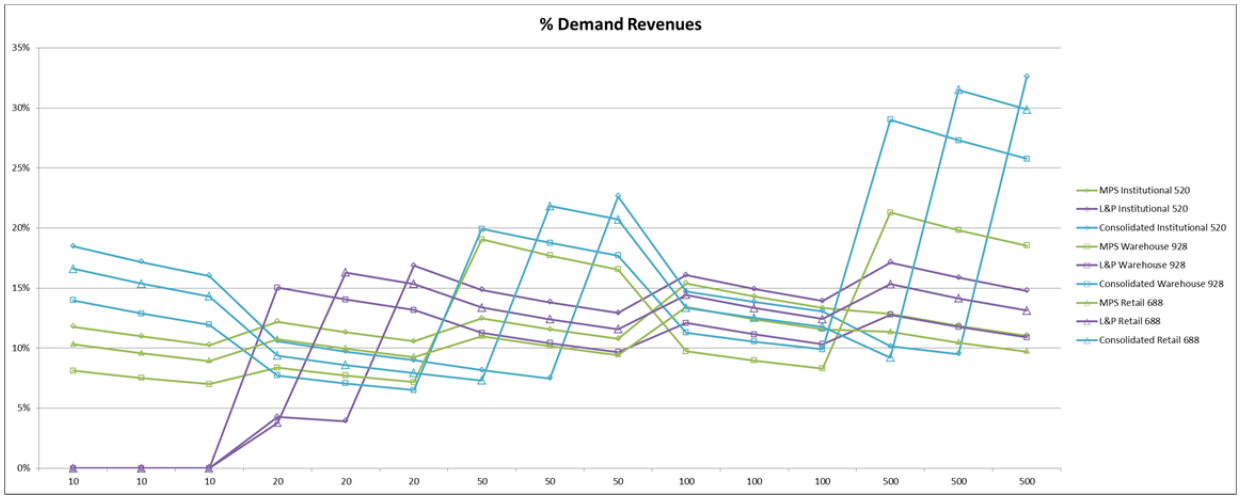


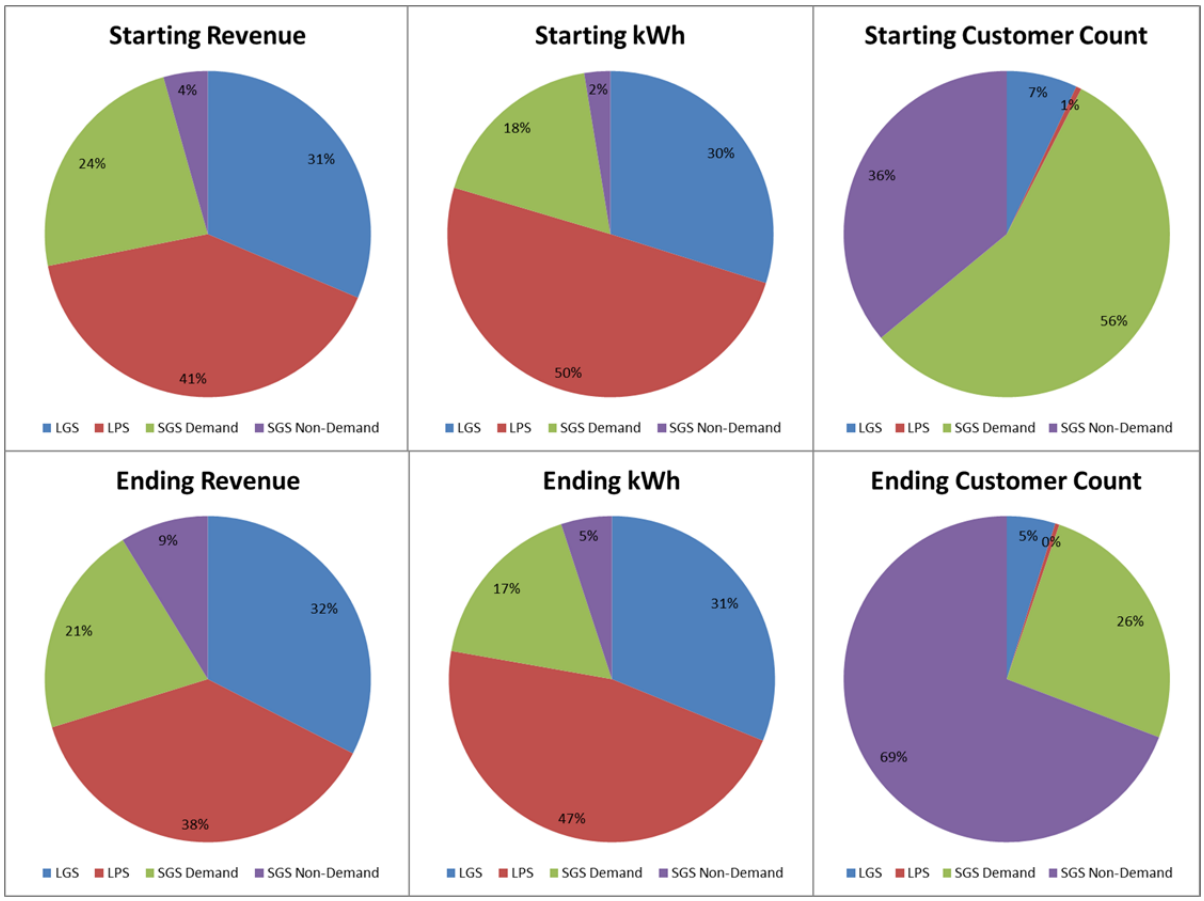
Staff Experts/Witnesses: Sarah L. Kliethermes, Robin Kliethermes

IV. Class Billing Determinants

While not included in its direct filing, GMO is conducting a "best-fit" process to distribute customers to the newly created classes. This process is necessary to establish the billing determinants that will be used to design the rates ultimately resulting from this case. GMO and Staff each continue to employ a process of "assigning" customers to a given service classification based on that customer's current classification to create an initial consolidated classification, and then removing those customers and associated revenues who would receive a lower annual bill by switching to a different consolidated service classification. Given the complexity of the overall process, GMO and Staff have "best-fit" the customers and those customers associated determinants to the classification that produces the lower annual bill, but, at the time of direct, have not reassigned that customer's revenues to the new classification. The difference in revenues from what that customer would pay on the assigned classification to what the customer would pay on the best-fit classification will be spread to all non-residential classes as part of the overall revenue requirement.[19]

[19] Were the revenue shortfall from the best-fit customer movements to be allocated directly to the receiving class, that class's revenue requirement would necessarily change, which would change that class's rates, which would cause some customers to move out of that class and cause customers to not move into that class, which would impact the level of revenues to be reallocated.

Graphic indication of the movement of customers among classes is provided below. These graphs provide the specified determinants that result from adding the nominal classes of each rate district together as the "starting" point, with the best-fit of customers to classes where each customer would pay the lowest annual average bill provided as the "ending" point.[20]

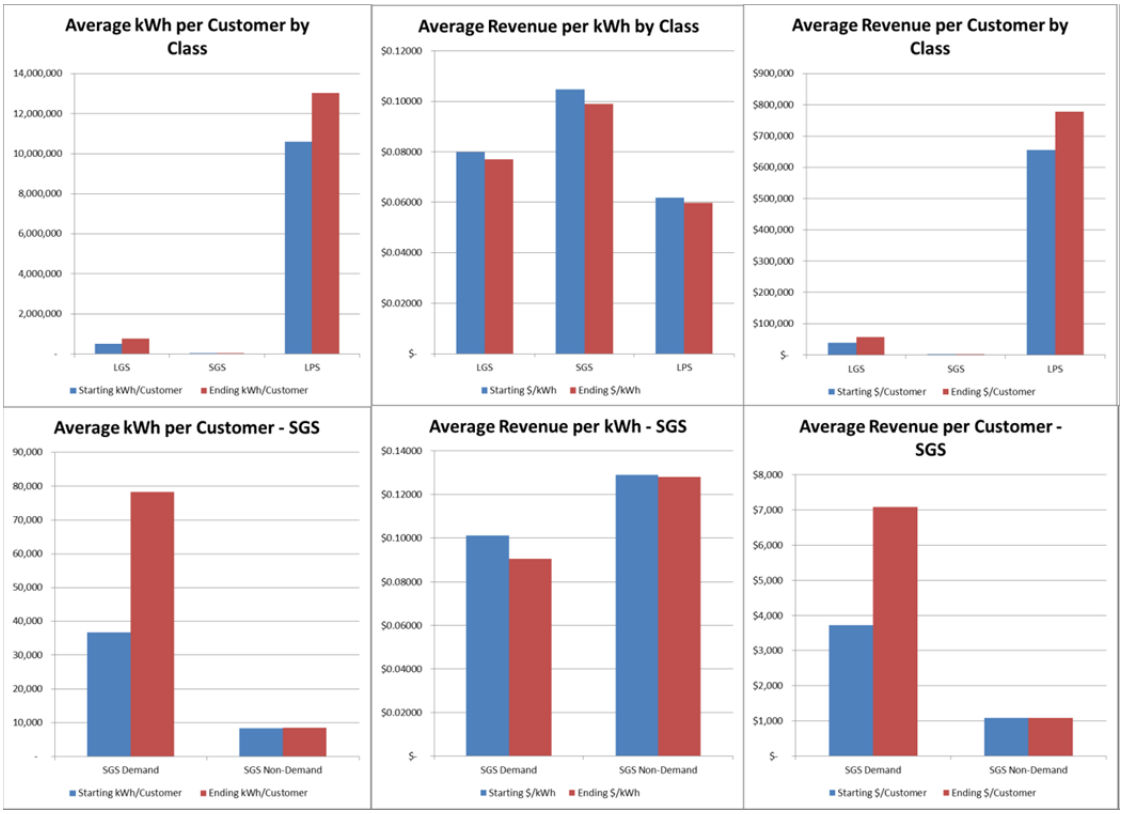


As indicated above, there was a noticeable increase in the Small General Service Non-Demand rate classification in terms of as the revenue generated by that class, the kWh consumed by that class, and the number of customers served. While the revenues and kWh percentage values more than doubled, the ending customer count number did not quite double. This indicates that the customers who were migrated into the SGS Non-Demand class are, on average, above the average size for the SGS Non-Demand class. While some customers left this class for a more favorable bill on the SGS Demand schedule, generally the net change in

[20] Subclasses have been compressed for simplicity in this illustration. For example, the Net-Metering rate schedules are not broken out separately, nor are the voltage-level schedules within each class separately provided. Because these numbers are not adjusted for voltage levels, there is not complete parity in beginning and ending relative values.

this class is due to customers moving into the class for a more favorable bill. As the graphs below indicate, the average kWh per customer and the average revenue per customer for the SGS Non-Demand class both increased as a result of best fitting customers, while the average revenue per kWh decreased slightly.[21]

For the SGS Demand class, there was movement of SGS Demand customers down to the SGS Non-Demand class, and up the LGS class. The net of these migrations had an impact on the SGS Demand metrics that was similar to the changes observed in the SGS Non-Demand Class. However, comparing the shares of the pie charts above to the graphs below indicates that for the SGS Demand class, more small customers moved out than large customers moved in. This is demonstrated by the SGS Demand shares of total non-residential Revenues and kWh decreasing only slightly, while retaining less than half of its total customer amounts. As shown in the graphs below, the average kWh and Revenue per SGS Demand customer increased significantly, while the average revenue per kWh decreased.



[21] For purposes of the graphs provided below, Staff has factored down GMO's requested rates as structured and designed to collect GMO's current revenues. This provides comparability from the starting revenues by class and customer to the ending revenues by class and customer. The resulting differences are due to the movement of customers from the "assigned" class to the "best-fit" class as discussed above.

A similar analysis of the LGS class indicates that on the net, a few larger-than average customers moved into the LGS class, but many smaller-than-average customers moved out. These below-average size LGS customers typically became larger-than-average SGS Demand customers. Similarly, the LPS class experienced only modest declines to its share of sales and revenues, yet its average kWh per customer increased noticeably. These smaller-than-average LPS customers became larger-than-average LGS customers, which resulted in decreases to the average revenue per kWh for the LPS class, while the average revenue per customer increased.

Customers are migrated to the best-fit rate according to where that customer would be billed the lowest annual amount. The rates that are used to calculate the bills used in this analysis were designed to recover a specific amount of revenue, based on the billing determinants associated with that assigned class. Migration of customers to rate schedules that result in a lower annual bill will result in recovery of an overall lower amount for the company. Staff's current estimate of the revenue adjustment associated with the best-fit process is a reduction in retail rate revenue of approximately $8 million.

Staff Experts/Witnesses: Sarah L. Kliethermes, Robin Kliethermes

V. Rate Design

In general, GMO's proposed structure and design prioritizes revenue recovery stability first, and minimization of customer impact second. In light of the comprehensive nature of GMO's proposal, Staff will identify areas of concern and explain recommended refinements to GMO's proposal, as opposed to providing a ground-up Staff proposal for rate consolidation. This approach is necessary for Staff to have reasonable confidence in the billing determinants calculated to result from the changes in rate structure. However, customer movement to final rate schedules is contingent on Commission decisions on rate design, which cannot be known until after the Report and Order is issued.

With an eye towards refining GMO's rates to better implement good rate-making policies including cost causation, Staff recommends that the Commission order GMO to perform load research to sample the newly-consolidated classes. Once a year of hourly data for the new classes is available, Staff recommends that GMO file a rate design case to implement rates that better recognize cost causation and additional rate design policies.

GMO's proposed rate design for each class excluding lighting and certain minor rate schedules is provided below.

	146.1 A		146.1 B		146.3	
	Residential		Residential Space Heating		Residential Other Use	
	Summer	Non-Summer	Summer	Non-Summer	Summer	Non-Summer
Customer Charge	$ 14.50	$ 14.50	$ 14.50	$ 14.50	$ 13.25	$ 13.25
All kWh					0.16946	0.12707
0-600 kWh	0.13072	0.10152	0.13072	0.10152	0.13072	0.10152
601-1000 kWh	0.13072	0.09853	0.13072	0.08213	0.13072	0.08213
1001+ kWh	0.13072	0.07490	0.13072	0.05200	0.13072	0.05200

	147.1 A		147.1 B		147.2		147.3	
	SGS Non-demand		SGS Non-demand Frozen		SGS Demand Secondary		SGS Demand Primary	
	Summer	Non-Summer	Summer	Non-Summer	Summer	Non-Summer	Summer	Non-Summer
Customer Charge	$ 27.00	$ 27.00	$ 11.00	$ 11.00	$ 27.00	$ 27.00	$ 27.00	$ 27.00
Facilities Charge					$ 1.632	$ 1.632	$ 1.632	$ 1.632
Minimum Demand					25		25	
Base Billed Demand					$ 1.432	$ 1.399	$ 1.389	$ 1.357
Seasonal Billed Demand					$ 1.432	$ -	$ 1.389	$ -
All kWh	0.15800	0.09927	0.15800	0.07392				
Seasonal kWh	0.15800	0.05092	0.15800	0.05092				
Base first 180 HOU					0.11077	0.08046	0.10392	0.07902
Base over 180 HOU					0.08336	0.07262	0.07820	0.07132
Seasonal first 180 HOU					0.11077	0.05092	0.10392	0.04892
Seasonal over 180 HOU					0.08336	0.05092	0.07820	0.04892

	148.1		148.2	
	LGS Secondary		LGS Primary	
	Summer	Non-Summer	Summer	Non-Summer
Customer Charge	$ 76.00	$ 76.00	$ 250.00	$ 250.00
Facilities Charge	$ 2.325	$ 2.325	$ 1.506	$ 1.506
Minimum Demand	150		150	
Base Billed Demand	$ 0.920	$ 0.620	$ 0.892	$ 0.602
Seasonal Billed Demand	$ 0.920	$ -	$ 0.892	$ -
Base first 180 HOU	0.09544	0.07273	0.09256	0.07009
Base next 180 HOU	0.07222	0.06666	0.07003	0.06423
Base over 360 HOU	0.05054	0.04564	0.04900	0.04396
Seasonal first 180 HOU	0.09544	0.03992	0.09256	0.03892
Seasonal next 180 HOU	0.07222	0.03992	0.07003	0.03892
Seasonal over 360 HOU	0.05054	0.03992	0.04900	0.03892

	149.1		149.2		149.3		149.4	
	LPS - Secondary		LPS - Primary		LPS - Substation		LPS - Transmission	
	Summer	Non-Summer	Summer	Non-Summer	Summer	Non-Summer	Summer	Non-Summer
Customer Charge	$ 680.00	$ 680.00	$ 680.00	$ 680.00	$ 680.00	$ 680.00	$ 680.00	$ 680.00
Facilities Charge	$ 3.244	$ 3.244	$ 2.834	$ 2.834	$ -	$ -	$ -	$ -
Minimum Demand	500		500		500		500	
Base Billed Demand	$ 10.861	$ 5.656	$ 10.539	$ 5.488	$ 10.311	$ 5.370	$ 10.238	$ 5.331
Seasonal Billed Demand	$ 10.861	$ -	$ 10.539	$ -	$ 10.311	$ -	$ 10.238	$ -
Base first 180 HOU	0.05790	0.05404	0.05612	0.05242	0.05458	0.05157	0.05565	0.05026
Base next 180 HOU	0.04558	0.04253	0.04417	0.04125	0.04296	0.04058	0.04380	0.03954
Base over 360 HOU	0.03996	0.03728	0.03872	0.03615	0.03765	0.03556	0.03840	0.03465
Seasonal first 180 HOU	0.05790	0.03392	0.05612	0.03392	0.05458	0.03392	0.05565	0.03392
Seasonal next 180 HOU	0.04558	0.03392	0.04417	0.03392	0.04296	0.03392	0.04380	0.03392
Seasonal over 360 HOU	0.03996	0.03392	0.03872	0.03392	0.03765	0.03392	0.03840	0.03392
Reactive Demand Adjust.	0.433	0.433	0.433	0.433	0.433	0.433	0.433	0.433

GMO's proposed rate structure has more elements than are included on any given current rate schedule. Inclusion of these additional elements does have some advantages in that (1) multiple rate elements can allow for better alignment of individual customers within a class with cost causation, and (2) GMO's proposal makes available more billing data to refine

rate elements in a future redesign of rate structure. However, Staff is concerned that the inclusion of these rate elements at the proposed rate design will have the following impacts:

(1) make it more difficult to predict what revenues will be at the conclusion of this case to the extent that billing determinants are less predictable;

(2) reduce customer understanding of bills;

(3) reduce customer control of bills, given the shift to NCP demand-based revenue recovery and away from energy recovery;

(4) send price signals that improperly weight the relevance of customer NCP demand as a determinant of production-capacity related costs;

(5) send the improper price signal that the cost of energy is decreasing relative to the last GMO general rate case;

(6) disincentivize prior and potential customer investment in energy efficiency;

(7) shift customer bill impact from particular months to a flatter pattern in a manner that may catch certain customers unprepared or that may cause certain customers to pay more during the period immediately preceding the implementation of compliance tariffs and following the implementation of compliance tariffs than the utility would be entitled to recover during that period.

To address these concerns, Staff recommends the Commission order GMO to do new and/or reassigned load sampling, and to derive new load research data that is appropriate for the classes resulting from this case. Staff recommends the Commission order GMO to file a rate design case upon the completion of one year's worth of load research data. Included in this filing should be (1) a class cost of service study, (2) GMO's proposal to make Time of Use ("ToU") rates available to all customers including a study of applicable ToU determinants, and (3) a study of the reasonableness of modifying GMO's seasonal rates to establish rates for Peak months and Shoulder months, as opposed to GMO's current Summer / Non-Summer seasonal split, including applicable determinants.

Among Staff's concerns with GMO's proposed rate design is that the requested rates shift emphasis of revenue recovery away from energy and onto customer NCP demand. Whether or not this is consistent with cost-causation cannot be reliably known until a reasonable class cost of service study can be performed on the class compositions that result from GMO's new rate structure. While customer NCP demand is a reliable indicator of the local distribution facilities necessary to directly serve a customer, the relationship to production capacity is more tenuous.[22] GMO should study this relationship and present a complete justification of this revenue recovery method, or propose an alternative recovery that more reasonably reflects the cost of capacity as allocated to classes and customers within a class. As an alternative, GMO should make ToU rates available to all customers on an opt-in basis at this time, and consider moving to Peak and Shoulder month seasonal rates that better reflect the current drivers of system capacity needs and market energy price variation.

An additional concern with the shift to customer NCP as a primary basis of revenue recovery is that GMO has not proposed a reasonable means of normalizing customer NCP demands, and that Staff is not aware of a feasible efficient means of normalizing individual customer demand billing determinants on a class-aggregated level.[23] This means that for purposes of revenues and billing determinants, it is not possible to use normalized data and actual data that may contain weather-related abnormalities must be used instead.

Other important policies to be considered by GMO in its proposal in the rate design case include minimization of rate shock to any one customer class or customers within a class, meeting of incremental costs, rate continuity, rate stability, revenue stability, consideration of promotional practices, and impact on energy efficiency policies.

Staff Experts/Witnesses: Sarah L. Kliethermes, Robin Kliethermes

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[22] A good example is a customer with a poor load factor, but that uses energy entirely or almost entirely off-peak. For example, a football field may use much more energy on a Friday evening in October than it does at any other time, resulting in a very low load factor and a very high NCP. However, almost all of that customer's usage would be off-peak energy both in term of the time of the day and of the season of the year. This means that the energy would be below the average cost of energy, and that the demand would likely not drive system planning.

[23] The L&P rate district already has a high reliance on demand revenue. For example, the current L&P LGS class has a facilities charge and billing demand based on the customers maximum demands, this is why some of these customers are getting a rate decrease going to consolidated rates (before a rate increase is applied). The MPS district, which has the majority of the customers, is the district that is increasing reliance on demand and therefore GMO as a whole is increasing reliance on demand revenue.

A. Residential Customer Charge

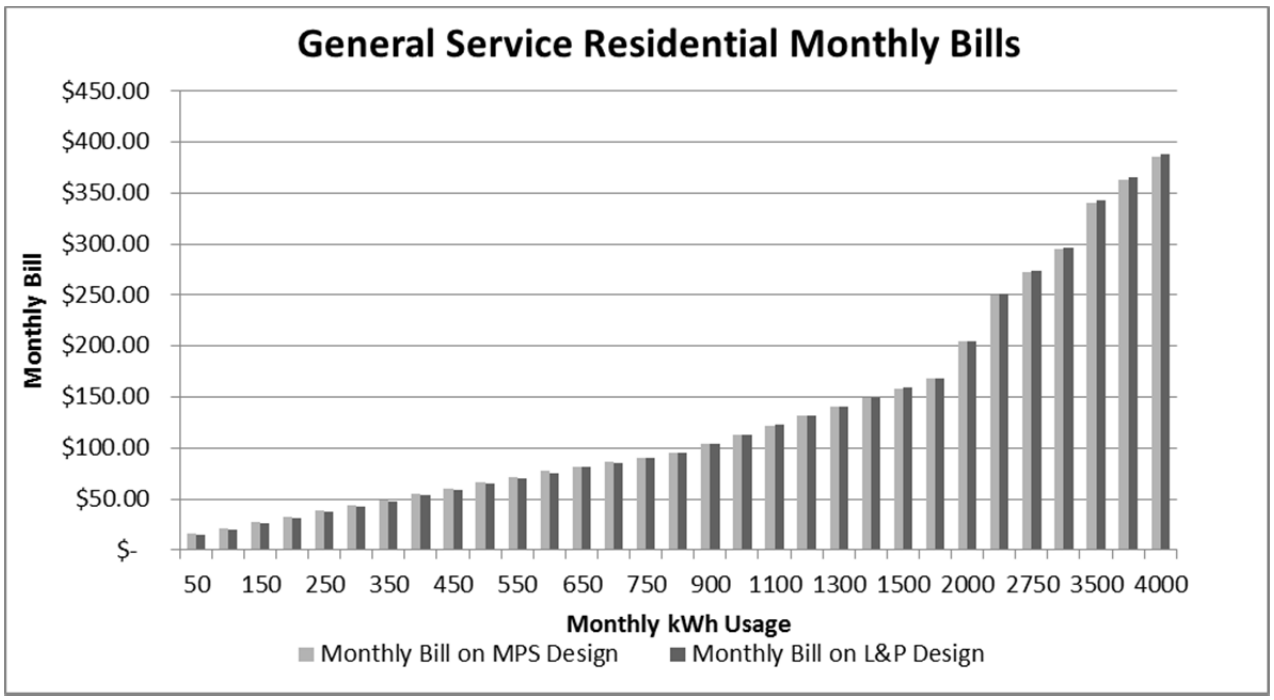
As discussed above Staff did not conduct a class cost of service study in this case, because load research data does not yet exist for the new consolidated rate classes that take into account Staff and GMO's "Best-Fit" analysis. However, for the residential class, Staff was able to perform an analysis of GMO's calculation of the residential customer charge. GMO found, on an equalized rate of return, that approximately $47.7 million were costs related to customer services, meters and customer service drops. Based on GMO's response to Staff data requests 370 and 370.1, approximately $9.3 million of the $47.7 million was identified as cost booked to customer service accounts that related to amortizations of solar rebates, DSIM and ERRP programs. These costs are more appropriately related to a customer's energy usage rather than a customer coming onto the system, therefore, Staff removed these costs from the calculation of the customer charge.

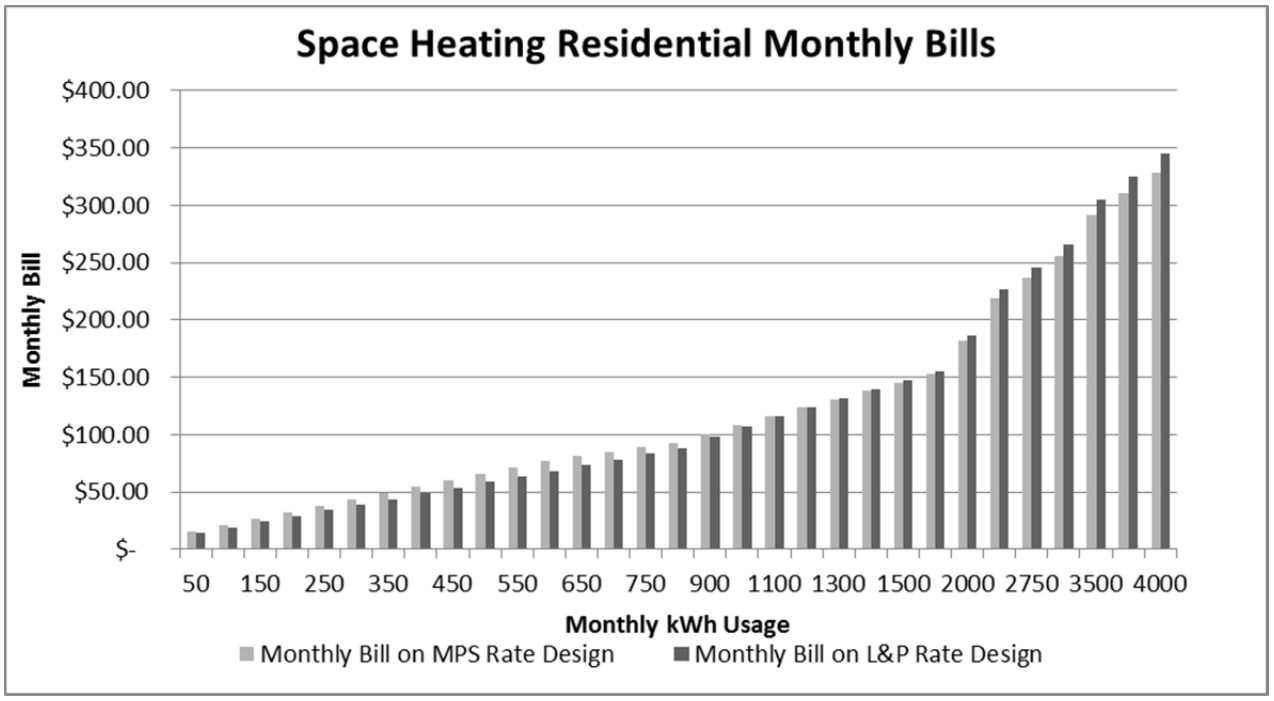
Further, GMO's class cost of service results include an overall rate increase of approximately 8.17%, whereas as Staff's overall rate increase filed on July 15, 2016 was $3,653,338 or 0.5 %. Staff adjusted GMO's calculated costs to reflect Staff's overall rate increase and based on these adjustments, Staff calculated a customer charge of approximately $10.71. Currently, the customer charge for customers in GMO's MPS rate district is $10.43 and for customers in GMO's L&P rate district it is $9.54. Since approximately 80% of the Residential General Use customers are from the GMO MPS rate district and Staff's overall recommended increase at Staff's mid-point ROE, which is below the ROE requested by GMO, Staff recommends a residential customer charge of $10.71 as a reasonable customer charge for this case.

Staff Expert/Witness: Robin Kliethermes

B. Residential Rate Design

For residential customers, the current tariffed rates for the L&P rate district and the MPS rate district result in similar monthly bills across levels of usage. A comparison of the monthly bills for various levels of usage on the L&P rate design and the MPS rate design is provided in the graphs below, for (1) general service customers, and (2) customers taking service on the space heating schedules.





These graphs demonstrate that there is significant parity in GMO's existing residential schedules. However, GMO's proposal would shift revenue recovery out of the non-summer billing months in a manner that does not minimize customer impact as part of its uniform rate

proposal. GMO's existing and proposed rate designs for its residential rate schedules and Staff's recommended residential rate design are provided below:[24]

	MO860 Residential General Use (MPS)	MO910 Residential General Use (L&P)	GMO Requested Res. General Use Increase Removed	Staff Recommended Res. General Use Before Increase	MO 870 Residential Space Heat (MPS)	MO 920 Residential Space Heat (L&P)	GMO Requested Res. Space Heat Increase Removed	Staff Recommended Res. Space Heating Before Increase
Customer Charge:	$ 10.43	$ 9.54	$ 13.36	$ 10.71	$ 10.43	$ 9.54	$ 13.36	$ 10.71
Summer First 600/650 kWh	$ 0.11150	$ 0.11910	$ 0.12045	$ 0.10871	$ 0.11150	$ 0.11910	$ 0.12043	$ 0.10871
Summer Next 400 kWh:	$ 0.11480	$ 0.11910	$ 0.12045	$ 0.10871	$ 0.11480	$ 0.11910	$ 0.12043	$ 0.10871
Summer over 1000 kWh	$ 0.12050	$ 0.11910	$ 0.12045	$ 0.10871	$ 0.12050	$ 0.11910	$ 0.12043	$ 0.10871
Winter First 600/650 kWh	$ 0.11150	$ 0.10580	$ 0.09354	$ 0.10871	$ 0.11150	$ 0.08760	$ 0.09351	$ 0.10871
Winter Next 400 kWh:	$ 0.07640	$ 0.07800	$ 0.09079	$ 0.07724	$ 0.06010	$ 0.08760	$ 0.07565	$ 0.08932
Winter over 1000 kWh	$ 0.07640	$ 0.07800	$ 0.06901	$ 0.07724	$ 0.04970	$ 0.05900	$ 0.04790	$ 0.05903

In the absence of a reliable class cost of service study, Staff's recommends residential rate designs minimize customer impact. Staff's rate design is intended to not send the improper price signal that the cost of energy is decreasing relative to the last GMO general rate case nor disincentivize prior and potential customer investment in energy efficiency. Also, Staff's design reduces the tendency to shift customer bill impact from particular months to a flatter pattern in a manner that may catch certain customers unprepared or that may cause certain customers to pay more during the period immediately preceding the implementation of compliance tariffs and following the implementation of compliance tariffs than the utility would be entitled to recover during that period.

Staff Experts/Witnesses: Sarah L. Kliethermes, Robin Kliethermes

C. Energy Prices

Because hourly class loads that reasonably relate to the best-fit proposed classes are unavailable, Staff was unable to analyze the voltage-adjusted load-weighted average cost of energy for each class for the 12 months ending June 30, 2015.[25] Provided below are the indicated average energy costs through the SPP Integrated Marketplace, at generation voltage. These values do not include any of the costs for ancillary and supportive services, or capacity.

[24] For purposes of this discussion Staff has scaled GMO's requested rates to remove the impact of its requested rate increase so that the differences in rate design can be studied more clearly.

[25] This period includes November of 2014 in the "shoulder" calculation.

	Summer	Non-Summer	Winter	Shoulder
Load Weighted Around the Clock Average:	$30.68	$26.05	$25.71	$26.31
Load Weighted On Peak Average:	$33.41	$28.62	$28.04	$29.03
Load Weighted Wrap Average:	$28.77	$24.43	$24.28	$24.54

Staff Expert/Witness: Sarah L. Kliethermes

D. Income-Eligible Pilot

To the extent the Commission is interested in studying the impact of an income-eligible customer charge subsidy in the GMO service territory, Staff provides below an outline of program characteristics and items to study.

Geographic scope should be limited to the counties served by a selected community action agency. This would limit the administrative burden on the community action agencies that serve the counties that make up GMO's service territory. The selected community action agency would certify to GMO the eligibility of customers to participate in the pilot based on the LIHEAP and WIHEAP eligibility status of the household. Fifty percent of participating households would not be charged the otherwise applicable residential customer charge in any month, and the remaining households would not be charged the otherwise applicable residential customer charge in the summer billing months and the billing months of December, January, and February. Recovery for the program could be handled in a manner similar to that utilized for Missouri-American Water Company in Case No. WR-2015-0301.

After a four year implementation period, GMO would file its findings regarding the following items:

1. Impact on reduction of customers' failure to pay,
2. Impact on company bad debt in its calculated revenue requirement,
3. Impact on the number of disconnects experienced,
4. Relative usage patterns for LIHEAP recipients and LIHEAP eligible households,
5. Whether any of the above items are consistent among those households subsidized in all months versus in peak months.

Staff cautions against creation of an income eligible "class" in this case in that billing determinants and hourly loads associated with that class are necessary to develop rates for such a class. Load sampling meters would need to be placed at qualifying households, and load research data developed.

Staff Expert/Witness: Sarah L. Kliethermes

VI. Fuel Adjustment Clause

A. Tariff Sheet Changes

In Staff's COS Report in this case, Staff provided to the Commission the following recommendations regarding GMO's Fuel Adjustment Clause ("FAC"):

1. Consolidate GMO's MPS and L&P Base Factors into one Base Factor and Fuel Adjustment Rates ("FARs") into one set of FARs unless the Commission decides not to consolidate the rates of MPS and L&P in this case;

2. Include one new Base Factor in the FAC tariff sheets calculated from the Net Base Energy Cost[26] that the Commission includes in the revenue requirement upon which it sets GMO's consolidated general rates in this case;

3. Order GMO to suspend all of its hedging activities (cross hedging and natural gas fuel hedging);

4. Retain language in the FAC tariff sheets that would allow GMO to resume its natural gas fuel hedging activities should the market place and/or other factors change in such a fashion that natural gas fuel hedging would be warranted. Order GMO to notify the Commission and the Staff if it decides to resume its natural gas fuel hedging activities between general rate cases;

5. Clarify that the only transmission costs that are included in GMO's FAC are those that GMO incurs to transmit electric power it did not generate to its own native load and costs to transmit excess electric power it is selling to third parties to locations outside of the Southwest Power Pool ("SPP") excluding any and all Midcontinent Independent System Operator ("MISO") transmission charges related to GMO's Crossroads generating plant;

6. Order GMO to exclude any and all MISO transmission charges related to its Crossroads generating plant from the FAC; and,

[26] Net Base Energy Cost is defined in GMO's Original Sheet No. 126.1 as Net base energy costs ordered by the Commission in the last general rate case consistent with the costs and revenues included in the calculation of the FPA.

7. Order GMO to continue to provide the additional information as part of its monthly reports[27] as GMO was ordered[28] to do in Rate Case No. ER-2012-0175 and has continued to provide in its monthly reports.

Staff Expert/Witness: Matthew J. Barnes

B. Consolidated GMO Base Factor Rate

Staff recommends the Commission consolidate the Base Factor rates for the MPS and L&P rate districts into the below single Base Factor rate based upon the following information in Staff's COS Report in this case: (1) net base energy cost (fuel and purchased power costs less off-system sales revenue) including Staff's accounting adjustments to test year; (2) updated voltage expansion factors[29]; and (3) normalized net system inputs:

Base Factor: $0.02026 per kWh

Staff will update the Base Factor before voltage adjustment rate for GMO as part of the test year true-up in this case.

Staff Expert/Witness: Matthew J. Barnes

C. Changes to GMO's Hedging Policy

In Staff's COS Report beginning on page 189, line 7 through page 192, line 13, Staff recommends that the Commission order GMO to suspend its current hedging practices related to its hedging for natural gas fuel for electric generating plants and hedging for electricity purchases, i.e., hedging for energy. It is Staff's position that the energy and natural gas markets have changed significantly and GMO's energy and natural gas hedging practices are not providing value to its customers. Specific changes include: (1) SPP's implementation of its Integrated Marketplace, which optimizes energy prices across a large regional area, and (2) stabilized natural gas supply and price. Further, GMO's FAC inherently provides protection for its customers and shareholders from short-term price spikes. Staff also recognizes that the natural gas market is dynamic and GMO may find it is warranted – at

[27] Monthly reports are required by 4 CSR 240-3.161(5).

[28] Page 64 of the Commission's *Report and Order*, issued January 9, 2013 in File No. ER-2012-0175.

[29] See the FAC Voltage Adjustment Factor section of Staff witness David C. Roos in this Report.

some time in the future - to resume its natural gas hedging practices and having hedging language in its FAC would allow GMO to respond to changes more quickly. Therefore, Staff recommends language in the FAC tariff that would allow GMO to resume its natural gas fuel hedging if market forces change that would warrant such a resumption of such practices. The current FAC Tariff Sheet No. 126 includes the following definition of Hedging Costs:

> Hedging costs are defined as realized losses and costs (including broker commissions fees and margins) minus realized gains associated with mitigating volatility in the Company's cost of fuel, fuel additives, fuel transportation, emission allowances, transmission and purchased power costs, including but not limited to, the Company's use of derivatives whether over-the counter or exchange traded including, without limitations, futures or forward contracts, puts, calls, caps, floors, collars, and swaps.

Staff recommends changing the definition of Hedging Costs in the FAC tariff sheet to the following:

> Hedging costs are defined as realized losses and costs (including broker commissions fees and margins) minus realized gains associated with mitigating volatility in the Company's cost of fuel, fuel additives, fuel transportation, emission allowances, including but not limited to, the Company's use of derivatives whether over-the counter or exchange traded including, without limitations, futures or forward contracts, puts, calls, caps, floors, collars, and swaps.

Staff Expert/Witness: Dana E. Eaves

D. Clarification Regarding MISO Transmission Charges Related to GMO's Crossroads Generating Plant

In Staff's COS Report beginning on page 185, line16 through page 186, line 23, Staff recommends to the Commission that it order that certain transmission costs be included in GMO's FAC and that MISO transmission charges related to GMO's Crossroads generating plant be excluded. Staff clarifies that the only transmission costs that should be included in GMO's FAC are those costs that GMO incurs to: (1) transmit electric power it did not generate to its own native load, and (2) transmit excess electric power it is selling to third parties located outside of the Southwest Power Pool ("SPP") excluding any and all Midcontinent Independent System Operator ("MISO") transmission charges related to GMO's Crossroads generating plant. This is consistent with the Commission's Report and Orders in

GMO's previous two rate cases. In GMO's last rate case, File No. ER-2012-0175 the Commission's *Report and Order*[30] stated the following concerning GMO's Crossroads generating plant:

> **Crossroads Transmission.** Several parties ask the Commission to order that GMO's FAC tariff sheets state expressly that GMO's FAC excludes transmission costs related to the Crossroads. Insofar as the Commission has determined that no transmission costs from Crossroads will enter GMO's MPS rates, there is no further dispute, and no further findings of fact and conclusions of law are required. The Commission will order GMO's FAC clarified to state that GMO's FAC excludes transmission costs related to Crossroads.

The Commission also stated in its *Report and Order*[31] in File No. ER-2010-0356 the following concerning GMO's Crossroads generating plant:

> If the Commission accepts Staff's position on fuel costs in the Crossroads issue, Staff recommends the Commission authorize and require modification of GMO's fuel adjustment clause to include a new factor that would exclude an increment of GMO's fuel costs for its Crossroads generating station from Fuel and Purchased Power Adjustments (GMO FAC ―FPAs). Consistent with its position that GMO's ratepayers should pay costs based on two 105 megawatt combustion turbines built in 2005 and located at the South Harper site, GMO's fuel clause should be modified so that its customers do not bear the incremental costs associated with higher gas prices and *transmission costs* of the Crossroads Energy Center which is located near Clarksdale, Mississippi. [Emphasis Added]

In Staff's COS Report in this case, it recommends to the Commission continue to exclude all of GMO's transmission costs related to GMO's Crossroads generating plant consistent with the Commission's Report and Order's in GMO's 2010 and 2012 rate cases. A more detailed discussion of GMO's Crossroads generating plant and Staff's recommendation to exclude all Crossroads transmission costs in base rates and the FAC is in Staff's COS Report beginning on page 53 through page 61.

Staff Expert/Witness: Matthew J. Barnes

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[30] Page 64 of the Commission's *Report and Order* in File No. ER-2012-0175.

[31] Page 212 through 213 of the Commission's *Report and Order* in File No. ER-2010-0356.

E. Additional Recommendations

Staff makes the following additional recommendations to the Commission concerning transmission expenses, MISO transmission charges related to GMO's Crossroads generating plant, and Regulatory Commission Expense:

1. Staff recommends to the Commission that 39.82%[32] of the SPP transmission costs that GMO incurs to transmit electric power it did not generate to its own native load and costs to transmit excess electric power it is selling to third parties to locations outside of the Southwest Power Pool excluding any and all Midcontinent Independent System Operator transmission charges related to GMO's Crossroads generating plant be included in GMO's FAC. This is consistent with the Commission's *Report and Order* in Kansas City Power & Light Company's ("KCPL") last general rate case.[33] Beginning on page 34 of the Commission's *Report and Order* in File No. ER-2014-0370, the Commission stated the following:

> The Commission has addressed this issue in recent rate cases. In the Report and Order issued in File No. ER-2014-0258 for Ameren Missouri, the Commission stated:
>
> The evidence demonstrated that for purposes of operation of the MISO tariff, Ameren Missouri sells all the power it generates into the MISO market and buys back whatever power its needs to serve its native load. From that fact, Ameren Missouri leaps to its conclusion that since it sells all its power to MISO and buys all that power back, all such transactions are off system sales and purchased power within the meaning of the FAC statute. The Commission does not accept this point of view. The drafters of the FAC statute likely did not envision a situation where a utility would consider all its generation purchased power or off system sales. In fact, the policy underlying the FAC statute is clear on its face. The statute is meant to insulate the utility from unexpected and uncontrollable fluctuations in transportation costs of purchased power. At the time the statute was drafted, and even in our more complex present-day system, the costs of transporting energy in addition to the energy generated by the utility or energy in excess of what the utility needs to serve its load are the costs that are unexpected and out of the utility's control to such an extent that a deviation from

[32] This percent is from Staff's fuel model and subject to change when Staff files its True-up on September 30, 2016.

[33] File No. ER-2014-0370.

> traditional rate making is justified. Therefore, of the three reasons Ameren Missouri incurs transmission costs cited earlier, the costs that should be included in the FAC are 1) costs to transmit electric power it did not generate to its own load (true purchased power) and 2) costs to transmit excess electric power it is selling to third parties to locations outside of MISO (off-system sales). Any other interpretation would expand the reach of the FAC beyond its intent.

Similarly, in a subsequent rate case for The Empire District Electric Company, which is also a member of SPP, the Commission concluded:

> Furthermore, as has been the case since the FAC statute was created, the costs of transporting energy in addition to the energy generated by the utility or energy in excess of what the utility needs to serve its load are the costs that are unexpected and out of the utility's control to such an extent that a deviation from traditional rate making is justified. Therefore, the costs Empire incurs related to transmission that are appropriate for the FAC, from a policy perspective and by statute, are: 1) Costs to transmit electric power it did not generate to its own load ("true purchased power"); or 2) Costs to transmit excess electric power it is selling to third parties to locations outside of its RTO ("Off-system sales").
>
> The evidence shows in this case that on a daily basis, KCPL sells all of the power it generates into the SPP market and purchases from SPP 100% of the electricity it sells to its retail customers. However, based on the Commission's analysis in the two cases cited above, it would not be lawful for KCPL to recover all of its SPP transmission fees through the FAC. In addition, while KCPL's transmission costs are increasing, those costs are known, measurable, and not unpredictable, so the costs are not volatile. The Commission concludes that the appropriate transmission costs to be included in the FAC are 1) costs to transmit electric power it did not generate to its own load (true purchased power); and 2) costs to transmit excess electric power it is selling to third parties to locations outside of SPP (off-system sales).

2. Staff recommends that the Commission order GMO to create subaccounts under Federal Energy Regulatory Commission ("FERC") Accounts 561.4, 561.8, 565000, 575, and 928 to record any and all MISO transmission charges related to GMO's Crossroads generating plant. Booking MISO transmission charges related to GMO's Crossroads generating plant to a subaccount would reduce the possibility of future errors and allow Staff and other stakeholders to audit the MISO transmission charges for prudency.

3. Staff recommends that the Commission exclude Regional Transmission Organization ("RTO") administrative fees and Regulatory Commission Expense from GMO's FAC. These expenses are administrative in nature and are not related to fuel and purchased power expenses. This is consistent with the Commission's *Report and Order* in KCPL's last general rate case, File No. ER-2014-0370. Beginning on page 36 of the Commission's *Report and Order* in File No. ER-2014-0370, the Commission stated the following:

> KCPL has requested that SPP Schedule 1-A and 12 fees be included in its FAC. The Commission finds that these fees are administrative in nature and not directly linked to fuel and purchased power costs. These fees support the operation of SPP and are not needed for KCPL to buy and sell energy to meet the needs of its customers. These fees are neither fuel and purchased power expenses nor transportation expenses incurred to deliver fuel or purchased power. The Commission concludes that including such fees would be unlawful under Section 386.266.1, RSMo, and, therefore, Schedule 1-A and 12 fees should not be included in the FAC. These fees are appropriate for recovery in base rates.

Staff Expert/Witness: Matthew J. Barnes

F. Changes to the Transmission Definition in GMO's FAC Tariff Sheet

The current FAC Tariff Sheet No. 126 includes in its definition of the transmission costs the following:

> The following costs reflected in FERC Account Number 565 (excluding Base Plan Funding costs and costs associated with the Crossroads generating stations): transmission costs that are necessary to receive purchased power to serve native load and transmission costs that are necessary to make off system sales.

Staff recommends changing the definition of transmission costs in the FAC tariff sheet to the following:

> The following costs reflected in FERC Account 565: 39.82% of SPP transmission costs that GMO incurs to transmit electric power it did not generate to its own native load and costs to transmit excess electric power it is selling to third parties to locations outside of the Southwest Power Pool excluding any and all Midcontinent Independent System Operator transmission charges related to GMO's Crossroads Generating plant.

The change to GMO's definition of Transmission Costs in its FAC tariff sheet is consistent with the Commission's Report and Orders concerning transmission expense to be included in FAC's as described in Staff's recommendation above.

Staff Expert/Witness: Matthew J. Barnes

G. FAC Voltage Adjustment Factors

Rule 4 CSR 240-20.090(9) states:

> (9) Rate Design of the RAM [rate adjustment mechanism]. The design of the RAM rates shall reflect differences in losses incurred in the delivery of electricity at different voltage levels for the electric utility's different rate classes. Therefore, the electric utility shall conduct a Missouri jurisdictional system loss study within twenty-four (24) months prior to the general rate proceeding in which it requests its initial RAM. The electric utility shall conduct a Missouri jurisdictional loss study no less often than every four (4) years thereafter, on a schedule that permits the study to be used in the general rate proceeding necessary for the electric utility to continue to utilize a RAM.

In 2013, Staff and all four investor-owned electric utilities in Missouri, including GMO, agreed to the following interpretation of Rule 4 CSR 240-20.090(9):

- When the electric utility initially seeks authority to use a rate adjustment mechanism, the end of the 12-month period of actual data collected that is used in its Missouri jurisdictional system loss study must be within the twenty-four (24) months immediately preceding the date the utility files its application for a general rate case; and

- When the electric utility seeks to continue or modify its rate adjustment mechanism, the end of the 12-month period of actual data collected that is used in its Missouri jurisdictional system loss study must be no earlier than four (4) years before the end of the 12-month period the utility uses for developing the general rates it proposes the Commission approve in that general rate proceeding.

In this case, GMO supplied Staff with the KCPL Loss Study R075-14,[34] in which December 31, 2013 is the end of the 12-month period of actual data collected for the study. Since December 31, 2013, is within four (4) years of July 31, 2016, which is the end of the anticipated true-up period for new rates in this rate case, the 12-month period of the actual data collected for performance of Loss Study R075-14 is in compliance with the rule for this rate case.

However, as a result of his review of Loss Study R075-14, Staff witness Alan J. Bax found that the loss factors calculated for GMO's MPS and L&P rate districts are suspect when compared to the results of previous loss studies. Specifically, Mr. Bax determined that:

> In comparing the results of the most recent loss study received in October 2014 to the immediately previous loss study received in October 2009, Staff notes the approximate 15% change in the total losses between the two studies reported for both the MPS and the L&P rate districts. Furthermore, in addition to the unusual change in magnitude of the losses reported in these two loss studies, the reported losses for the MPS rate district increased by this amount while the reported losses for the L&P rate district decreased by a similar amount. This resulted in a nearly 2% difference between the overall loss percentage reported between the MPS and L&P rate districts. Historically, there has been little variance between the loss percentages of MPS and L&P rate districts. The corresponding difference between the loss percentages of the MPS and L&P rate districts in the 2009 loss study is 0.11% as compared to the nearly 2% difference in the 2014 study. [35]

Mr. Bax has recommended that Staff use the results of the previous 2009 loss study (KCPL Loss Study R145-09 Revision 1) in determining the combined MPS and L&P rate district FAC Voltage Adjustment Factors.[36] Therefore, the combined MPS and L&P voltage adjustment factors presented below are derived from KCPL Loss Study R145-09 Revision 1.

The voltage adjustment factors account for the energy losses incurred in the transmission and distribution of energy from the generator to the customer. These factors are used in the FAC calculations to adjust the fuel adjustment rates in the Company's FAC to the

[34] This is the same loss study provided to Staff in October 2014 with the request of KCPL to establish a Fuel Adjustment Clause in File No. ER-2014-0370.

[35] See pages 108-109 Staff's COS Report, Alan J. Bax testimony.

[36] See pages 108-109 Staff's COS Report, Alan J. Bax testimony.

fuel adjustment rates applicable to the individual voltage service classification. Table 1 and Table 2 provide Staff's proposed new combined FAC voltage adjustment factors.

Table 1: Primary Voltage Level		
Voltage Adjustment Factors	Rate District	
	MPS	L&P
Current Tariff	1.0419	1.0421
Proposed	**1.0419**	**1.0419**
Change	0.0000	-0.0002

Table 2: Secondary Voltage Level		
Voltage Adjustment Factors	Rate District	
	MPS	L&P
Current Tariff	1.0712	1.0701
Proposed	**1.0709**	**1.0709**
Change	-0.0003	0.0008

Staff Expert/Witness: David C. Roos

VII. Appendix

Appendix 1 - Staff Credentials

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service	))))	Case No. ER-2016-0156

AFFIDAVIT OF MATTHEW J. BARNES

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW MATTHEW J. BARNES and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff Report - Rate Design; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Matthew J. Barnes
MATTHEW J. BARNES

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of July, 2016.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2016
Commission Number: 12412070

D. Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service	))))	Case No. ER-2016-0156

AFFIDAVIT OF DANA E. EAVES

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW DANA E. EAVES and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff Report - Rate Design; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Dana E. Eaves

DANA E. EAVES

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of July, 2016.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2016
Commission Number: 12412070

D Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service	))))	Case No. ER-2016-0156

AFFIDAVIT OF ROBIN KLIETHERMES

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW ROBIN KLIETHERMES and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing Staff Report - Rate Design; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

ROBIN KLIETHERMES

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of July, 2016.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2016
Commission Number: 12412070

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service	))))	Case No. ER-2016-0156

AFFIDAVIT OF SARAH L. KLIETHERMES

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW SARAH L. KLIETHERMES and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing Staff Report - Rate Design; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Sarah L. Kliethermes

SARAH L. KLIETHERMES

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of July, 2016.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2016
Commission Number: 12412070

D. Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

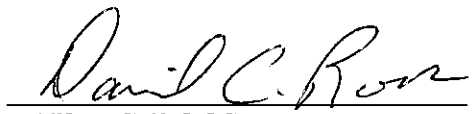
In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service	))))	Case No. ER-2016-0156

AFFIDAVIT OF DAVID C. ROOS

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW DAVID C. ROOS and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff Report - Rate Design; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.



DAVID C. ROOS

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of July, 2016.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
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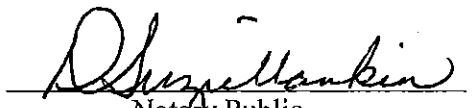
Commission Number: 12412070



Notary Public