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(Midstates Natural Gas) Corp. d/b/a Liberty Utilities Case No.: GR-2018-0013

Date Testimony Prepared: September 28, 2017

Before the Public Service Commission of the State of Missouri

Direct Testimony

of

Timothy S. Lyons ScottMadden, Inc

On Behalf Of

Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities

September 2017



DIRECT TESTIMONY OF TIMOTHY S. LYONS LIBERTY UTILITIES BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION CASE NO. GR-2018-0013

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DIRECT TESTIMONY
OF
TIMOTHY S. LYONS
LIBERTY UTILITIES
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. GR-2018-0013

I. <u>INTRODUCTION</u>

- 2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 3 A. My name is Timothy S. Lyons. My business address is 1900 West Park Drive, Suite 250,
- 4 Westborough, Massachusetts 01581.

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- 5 Q. PLEASE DESCRIBE YOUR CURRENT POSITION.
- 6 A. I am a Partner at ScottMadden, Inc. ("ScottMadden").
- 7 Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.
- 8 A. I have more than 30 years of experience in the energy industry. I started my career in
- 9 1985 at Boston Gas Company, eventually becoming Director of Rates and Revenue
- Analysis. In 1993, I moved to Providence Gas Company, eventually becoming Vice
- President of Marketing and Regulatory Affairs. Starting in 2001, I held a number of
- management consulting positions in the energy industry first at KEMA and then at
- Quantec, LLC. In 2005, I became Vice President of Sales and Marketing at Vermont Gas
- Systems, Inc. before joining Sussex Economic Advisors, LLC ("Sussex") in 2013.
- Sussex was acquired by ScottMadden on June 1, 2016.

16 Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND?

- 17 A. I hold a Bachelor's degree from St. Anselm College, a Master's degree in Economics
- from The Pennsylvania State University, and a Master's degree in Business

Administration from Babson College. A summary of my testimony experience is included in Schedule TSL-1.

II. PURPOSE OF TESTIMONY

4 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

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A. The purpose of this testimony is to describe the approach used to design the proposed delivery rates for Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities ("Liberty" or the "Company"). The delivery rates are designed for the Company's three regions: Northeast Missouri Area ("NEMO"), Southeast Missouri Area ("SEMO"), and West Missouri Area ("WEMO"). My testimony includes: (a) a description of the current rate classes for the Company; (b) development of the allocated Cost of Service Study ("COSS"); (c) development of the proposed revenue targets, rate design, and bill impact analysis for each rate class; and (d) discussion of a proposed rider and several trackers.

13 Q. HAVE YOU PREPARED SCHEDULES TO SUPPORT YOUR TESTIMONY?

14 A. Yes. Schedules TSL-2 through TSL-12 summarize the results of the COSS and rate
15 design, and Schedule 13 includes the proposed rider. The Schedules were prepared by
16 me or under my direction.

III. OVERVIEW AND CURRENT RATE STRUCTURE

18 Q. PLEASE DESCRIBE LIBERTY UTILITIES SERVICE AREA.

Liberty Utilities (Midstates Natural Gas) Corp., a subsidiary of Algonquin Power & Utilities Corp., provides natural gas service in multiple communities in Missouri including Butler, Kirksville, Canton, Hannibal, Jackson, Sikeston, Malden, and Caruthersville. The Company serves a mix of residential, commercial, industrial, and transportation customers. The Company serves approximately 53,394 customers in which

46,475 (87.0 percent) are residential, and 6,918 (13.0 percent) are commercial and industrial ("C&I"). Customers are presently served under one of five rate classes based on type of service and load characteristics. The rate classes are shown in Figure 1, and are consistent across the three regions. In addition, the Company has special contract customers. These customers were not evaluated in the COSS study since their rates will not change as a result of this proceeding. However, revenues generated by these customers were credited to the cost of service based on current margins.

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Figure 1: Current Rates

Rate Class	Availability	Current Rates ¹	NEMO	SEMO	WEMO
Residential Class ("RS")	Available to any residential customer	Customer charge (Monthly) Consumption charge (per CCF)	\$20.00 \$0.27690	\$13.75 \$0.18370	\$20.00 \$0.19206
Small General Service ("SGS")	Available to C&I customers who use a type A or B meter	Customer charge (Monthly) Consumption charge (per CCF)	\$28.26 \$0.07187	\$17.46 \$0.05782	\$23.80 \$0.06954
Medium General Service ("MGS")	Available to C&I customers having annual usage less than 75,000 CCF	Customer charge (Monthly) Consumption charge (per CCF)	\$124.60 \$0.23180	\$126.99 \$0.21124	\$118.01 \$0.26103
Large General Service ("LGS")	Available to C&I customer having annual usage more than 75,000 CCF	Customer charge (Monthly) Consumption charge (per CCF)	\$623.01 \$0.14583	\$634.95 \$0.18255	\$590.03 \$0.17794
Interruptible Class ("IN")	Available to C&I customers having daily demand of at least 1,000 CCF during offpeak periods, and annual usage more than 200,000 CCF	Customer charge (Monthly) Consumption charge (per CCF)	\$623.01 \$0.14583	\$634.95 \$0.18255	\$590.03 \$0.17794

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PLEASE DESCRIBE THE COMPANY'S CURRENT RATE STRUCTURE. Q.

A. The Company's current rate structure consists of both delivery rates and Purchase Gas Adjustment ("PGA") rates for sales service customers. The current delivery rates were approved by the Missouri Public Service Commission (the "Commission") in December

¹ The customer charges in Figure 1 excludes the Infrastructure System Replacement Surcharge ("ISRS").

2014 as part of the most recent rate filing for the Company.² The delivery rates consist of a monthly customer charge and consumption charge, as shown in Figure 1. The Figure shows that rates for Residential and Small General Service classes in NEMO and WEMO are higher than those in SEMO. For example, customer charge for Residential customers is \$20.00 per month in NEMO and WEMO, and \$13.75 per month in SEMO. Similarly, Small General Service customer charges are \$28.26 and \$23.80 per month in NEMO and WEMO, respectively, and \$17.46 per month in SEMO. These differences, as discussed below, have implications on customer bill impacts as the Company proposes to move toward a single set of rates for each rate class across the three regions; i.e., one set of rates for Residential, SGS, MGS, LGS and Interruptible customers across the three regions.

12 Q. PLEASE DESCRIBE THE USAGE PROFILE OF THESE RATE CLASSES.

13 A. Figure 2 provides a breakdown of test year customers and usage by rate class and region.

14 The test year is based on the period July 1, 2016 through June 30, 2017. The usage in

15 Figure 2 has been normalized for weather.

Figure 2: Test Year Customers and Usage

Liberty Utilities		Number of Customers			Annual Usage (CCF)			
Test Year Customers	NEMO	SEMO	WEMO	Total %	NEMO	SEMO	WEMO	Total %
Residential	15,729	27,469	3,277	87.0%	11,243,129	16,044,302	2,270,699	44.9%
Small General Service	2,113	3,324	528	11.2%	3,270,045	4,025,648	726,456	12.2%
Medium General Service	332	528	35	1.7%	4,440,882	5,206,401	494,665	15.4%
Large General Service	18	31	4	0.1%	4,328,322	10,955,357	1,221,973	25.1%
Interruptible	2	3	-	0.0%	1,054,605	552,074	-	2.4%
Total	18.195	31,356	3,843	100.0%	24,336,983	36,783,781	4,713,793	100.0%

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² Case GR-2014-0152, In the Matter of Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities' Tariff Revisions Designed to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Area of the Company.

Figure 2 shows that the SEMO region represents the largest number of customers, while the WEMO region represents the fewest. The Figure also shows that the Residential class represents a majority of the Company's customers.

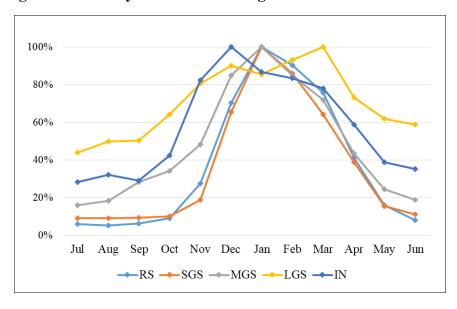
Figure 3 shows the variation in annual use per customer among the rate classes and regions. The Figure shows that Residential customers use on average 636 CCF per year, while Large General Service customers use on average 314,393 CCF per year. Residential use per customer varies among regions, with SEMO customers using on average 584 CCF per year while NEMO customers use on average 715 CCF per year.

Figure 3: Test Year Usage per Rate Class

Liberty Utilities	Annual Usage per Customer (CCF)				
Test Year Usage	NEMO	SEMO	WEMO	Total	
Residential	715	584	693	636	
Small General Service	1,547	1,211	1,377	1,345	
Medium General Service	13,359	9,857	14,269	11,329	
Large General Service	242,710	353,399	333,265	314,393	
Interruptible	527,303	161,583	-	296,618	

Figure 4 shows seasonal variation of the Company's rate classes, consolidated across the regions. Seasonal variation is calculated as monthly use divided by peak month use.

Figure 4: Monthly Use as a Percentage of Peak Month Use



Most rate classes demonstrate a seasonal load pattern, with monthly consumption increasing during the heating season and decreasing during the non-heating season. The Large General Service and Interruptible rate classes, in contrast, demonstrate a somewhat flatter, less seasonal load pattern. The load pattern difference, as discussed below, has implications on class cost of service.

IV. ALLOCATED COST OF SERVICE STUDY

Q. PLEASE DESCRIBE THE PURPOSE OF AN ALLOCATED COST OF SERVICE STUDY ("COSS").

A COSS allocates a company's overall cost of service to each rate class in a manner that reflects the underlying cost drivers. The COSS sponsored in this testimony was developed by identifying the relationship between the service requirements for each rate class and the cost drivers for those requirements. This approach is well established in industry literature³ and is consistent with past cost of service studies filed by the Company's predecessor Atmos Energy Corporation.⁴ Specifically, the cost of service studies sponsored in this testimony were generally based on the methodology filed in GR-2010-0192.

Q. PLEASE DESCRIBE THE APPROACH USED TO DEVELOP THE COSS.

18 A. The approach used to develop the COSS in this testimony consisted of a three step 19 process: (1) functionalization, or cost assignment into functional categories, largely 20 related to production, transmission and distribution; (2) classification, or cost assignment 21 according to whether costs are related to serving peak demands, customer service

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⁴ Case GR-2010-0192, In the Matter of Atmos Energy Corporation's Tariff Revision Designed to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Area of the Company.

³ See Principles of Public Utility Rates by James C. Bonbright

requirements, or energy demands; and (3) allocation, or cost assignment to rate classes
consistent with the functionalization and classification steps described above.

Q. WHAT IS FUNCTIONALIZATION?

A. Functionalization consists of separating rate base and expense items into operational components that include production, storage, transmission and distribution. Gas costs, which include production and pipeline charges and related costs, as well as commodity costs, are generally recovered through the Company's PGA and therefore not a component of the cost of service study.

9 Q. WHAT IS CLASSIFICATION?

10 A. Classification consists of separating rate base and expense items into categories based on
11 cost drivers. Distribution-related costs are generally classified as demand-related or
12 customer-related. Demand-related costs are driven by the requirement to serve customer
13 peak demands, while customer-related costs are driven by the requirement to connect and
14 provide customer-related services, such as metering and billing services.

15 Q. WHAT IS ALLOCATION?

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A. Allocation consists of assigning rate base and expense items to individual rate classes based on cost drivers to provide service to those customer classes.

18 Q. HOW WAS THE COSS DEVELOPED?

The COSS was developed utilizing a spreadsheet model developed by ScottMadden for this proceeding. Each rate base and expense item in the COSS was assigned to each rate class based on the three-step process described above. There were three COSS studies developed in this proceeding, one for each region: NEMO, SEMO and WEMO. The COSS studies assigned costs to each of the rate classes described earlier and included in

1		Figure 1. As previously noted, the Company's special contract customers were not
2		evaluated as part of the study.
3	Q.	PLEASE DESCRIBE THE OVERALL COST OF SERVICE STUDY RESULTS
4		OF COMPANY'S NEMO REGION.
5	A.	The results of the COSS for the NEMO region are shown in Figure 5 and Schedule TSL-
6		3. Figure 5 shows the calculated Rate of Return ("ROR") for each customer class as
7		compared to the overall or system ROR based on current rates.
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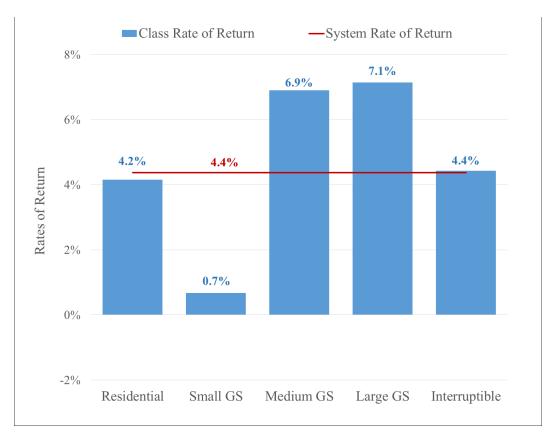


Figure 5: Class ROR vs. Overall ROR at Current Delivery Rates (NEMO Region)

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Figure 5 shows that NEMO's Residential and SGS customer classes produce a ROR below the system ROR. The MGS, LGS and Interruptible rate classes produce a ROR above the system ROR.

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Q. IS THERE VARIATION IN THE COST OF SERVICE ACROSS THE REGION'S

RATE CLASSES?

9 A. Yes, there is variation in the cost of service across the region's rate classes. Figure 6 shows variation in unit revenue requirements on a 'per customer' and 'per CCF' basis.

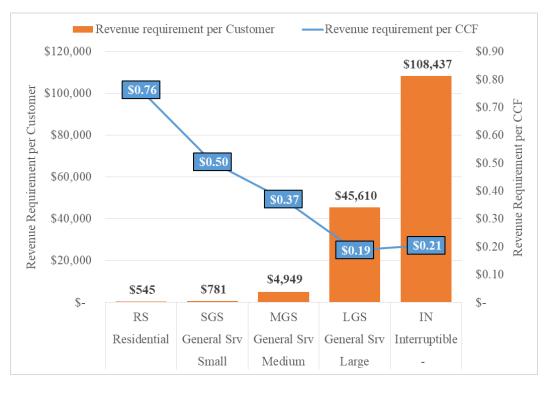


Figure 6: Revenue Requirement by Rate Class (NEMO Region)

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The revenue requirement for the Residential rate class is \$545 per customer, while the revenue requirement for the Interruptible class is \$108,437 per customer. In comparison, the revenue requirement per natural gas usage for the Residential class is \$0.76 per CCF, while the revenue requirement per natural gas usage for the Interruptible class is \$0.21 per CCF.

Q. PLEASE DESCRIBE THE OVERALL COST OF SERVICE STUDY RESULTS OF COMPANY'S SEMO REGION.

10 A. The results of the COSS for the SEMO region are shown in Figure 7 and Schedule TSL-11 3. Figure 7 shows the ROR for each customer class as compared to the system ROR

based on current rates.

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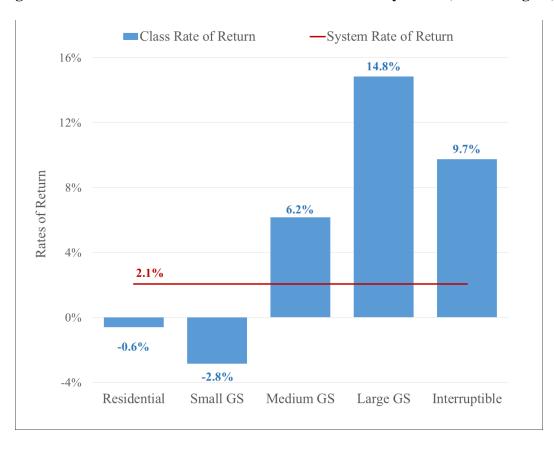


Figure 7: Class ROR vs. Overall ROR at Current Delivery Rates (SEMO Region)

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Figure 7 shows that SEMO's Residential and SGS customer classes produce a ROR below the system ROR. The MGS, LGS and Interruptible rate classes produce a ROR above the system ROR.

6 Q. IS THERE VARIATION IN THE COST OF SERVICE ACROSS THE 7 COMPANY'S RATE CLASSES IN SEMO REGION?

A. Yes, there is variation in the cost of service across the Company's SEMO region rate classes. Figure 8 shows variation in unit revenue requirements on a 'per customer' and 'per CCF' basis.

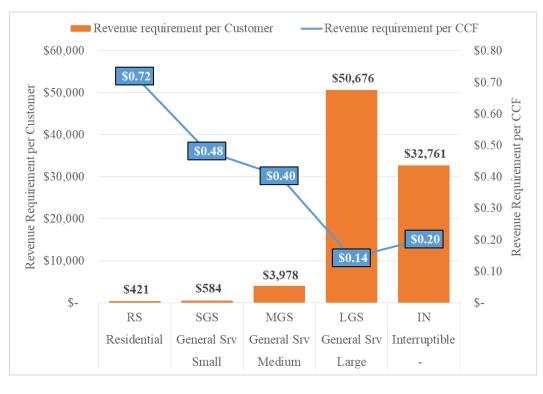


Figure 8: Revenue Requirement by Rate Class (SEMO Region)

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The revenue requirement for the Residential rate class is \$421 per customer, while the revenue requirement for the Interruptible class is \$32,761 per customer. In comparison, the revenue requirement per natural gas usage for the Residential class is \$0.72 per CCF, while the revenue requirement per natural gas usage for the Interruptible class is \$0.20 per CCF.

The results of the COSS for WEMO region are shown in Figure 9 and Schedule TSL-3.

PLEASE DESCRIBE THE OVERALL COST OF SERVICE STUDY RESULTS Q. 8 9 OF COMPANY'S WEMO REGION.

Figure 9 shows the calculated Rate of Return ("ROR") for each customer class as 11 12

compared to the overall or system ROR based on current rates.

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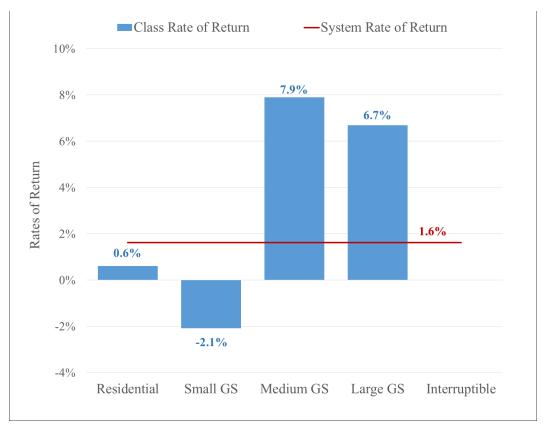


Figure 9: Class ROR vs. Overall ROR at Current Delivery Rates (WEMO Region)

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system ROR.

Figure 9 shows that WEMO's Residential and SGS customer classes produce a ROR below the system ROR. The MGS and LGS customer classes produce a ROR above the

6 Q. IS THERE VARIATION IN THE COST OF SERVICE ACROSS THE 7 COMPANY'S RATE CLASSES IN SEMO REGION?

A. Yes, there is variation in the cost of service across the Company's WEMO region rate classes. Figure 10 shows variation in unit revenue requirements on a 'per customer' and 'per CCF' basis.

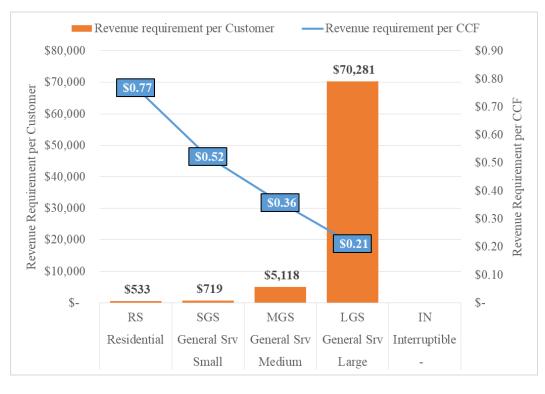


Figure 10: Revenue Requirement by Rate Class (WEMO Region)

The revenue requirement for the Residential rate class is \$533 per customer, while the revenue requirement for the LGS class is \$70,281 per customer. In comparison, the revenue requirement per natural gas usage for the Residential class is \$0.77 per CCF, while the revenue requirement per natural gas usage for the LGS class is \$0.21 per CCF.

Q. WHAT DOES IT MEAN WHEN A CLASS IS PRODUCING A HIGHER OR LOWER ROR THAN THE SYSTEM ROR?

A. If the ROR produced by a rate class is lower than the system ROR it means that the class revenues at existing rates are not recovering the fully allocated share of the utility's cost of service. Conversely, if a rate class is producing a higher ROR than the system ROR, it means that the class revenues at existing rates are recovering more than the fully allocated share of the utility's cost of service. As discussed below, the results of the COSS were used as a guide to establish revenue targets that move the Company's rates in

aggregate closer to equalized rates of return and help to improve equity across customer classes.

Q. PLEASE DESCRIBE THE DATA USED TO PREPARE THE COSS.

4 A. The COSS is based on financial data from the Test Year. The COSS includes the number of customers, sales and revenues by rate class. Sales and revenues have been adjusted to 5 reflect the impact of normal weather. The COSS also includes rate base items, including 6 intangible plant, production, transmission, distribution and general plant-in-service as 7 well as (a) additions to plant-in-service, including gas storage, prepaid expenses, cash 8 working capital, and other regulatory assets, and (b) reductions to plant-in-service, 9 including accumulated deferred income taxes, customer deposits, and customer advances. 10 The COSS also includes expense items, including transmission, distribution, customer 11 service, customer account, sales, and administrative and general expenses as well as taxes 12 other than income, such as payroll and property taxes, and income taxes. 13

Q. PLEASE DESCRIBE IN GREATER DETAIL THE FUNCTIONALIZATION PROCESS IN DEVELOPING THE COST OF SERVICE STUDY.

16 A. The cost of service is functionalized into one of the following categories:

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- Production costs associated with the gas supply, interstate pipeline transportation capacity, and upstream storage facilities;
- Storage costs associated with on-system storage facilities;
- Transmission costs associated with high pressure facilities that deliver gas to distribution facilities;
- Distribution costs associated with delivering natural gas to customers, including distribution main facilities and services, meters and regulators.

Production costs are generally recovered through the PGA while the transmission and distribution costs are recovered through base rates.

Q. PLEASE DESCRIBE IN GREATER DETAIL THE CLASSIFICATION PROCESS IN DEVELOPING THE COST OF SERVICE STUDY.

5 A. The cost of service is classified into one of the following categories:

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- Customer-related costs associated with providing customer access to the natural
 gas system as well as providing on-going customer services, including meter
 reading and billing services.
- Demand-related costs associated with meeting customer peak demand requirements
- Commodity-related costs associated with the quantity of gas purchased or transported

In some cases, costs were classified into only one of the three categories. The cost of meter reading, for example, was classified as customer related. In other cases, costs were classified into more than one category. The cost of distribution mains, for example, was classified as both customer- and demand-related.

Q. PLEASE EXPLAIN THE CLASSIFICATION OF DISTRIBUTION MAINS.

A. Distribution mains typically represents the largest plant investment for a gas utility. For the Company, distribution mains comprise 47, 27 and 34 percent of utility plant for the NEMO, SEMO and WEMO regions, respectively. The classification of distribution mains reflects two cost drivers. The first driver is the number of customers. Distribution mains are designed to provide customer access to the natural gas system. The second

driver is peak or design day demand. Distribution mains are designed to meet customer demands on the design day.⁵

The classification of distribution mains between customer- and demand-related was determined through a minimum system study. It is one of the methods recognized by NARUC in classifying distribution main costs. NARUC states,

"One argument for inclusion of distribution related items in the customer cost classification is the 'zero or minimize size main theory.' This theory assumes that there is a zero or minimum size main necessary to connect the customer to the system and thus affords the customer an opportunity to take service as he so desire.

Under the minimum size main theory, all distribution mains are priced out at the historic unit cost of the smallest main installed in the system, and assigned as customer costs."⁶

The classification of distribution mains was based on the minimum-size methodology. The analysis was based on historical cost data of distribution mains by material type and sizes, adjusted to current costs utilizing the Handy-Whitman Index of Public Utility Construction Costs ("Handy-Whitman"). In the analysis, the Company's distribution mains investments were priced at the cost of the smallest-sized main installed in the system. The total cost of the smallest sized-main was divided by the total cost of the mains investment to determine the customer portion. The analysis was performed on a consolidated basis for the three regions. The methodology is consistent with the above-referenced Atmos Energy Corporation previously filed COSS.⁷

Q. PLEASE DISCUSS THE RESULTS OF THE MINIMUM-SYSTEM ANALYSIS.

⁵ Design day demand is the highest estimated gas demand for a 24-hour period, and is used as a basis for designing the capacity of the transmission and distribution system.

⁶ NARUC Gas Distribution Rate Design Manual. Pg. 22-23

⁷ See Case No. GR-2010-0192.

1 A. The results of the minimum system analysis shows that the customer-related portion of the mains investment is 54.37 percent as shown on Schedule TSL-8. Therefore, the demand-related portion of the mains investment is 45.63 percent for the Company.

4 Q. PLEASE DISCUSS THE CLASSIFICATION OF OTHER RATE BASE ITEMS.

A. Other rate base items were similarly classified based on their underlying cost drivers. For example, meter cost, meter installation, service cost, and house regulator investments were classified as customer-related since they provide customer access to the natural gas system. Rate base items not directly associated with one of the classification categories, such as general plant, were classified through a composite classifier based on the related costs. Schedule TSL-4 provides a full description of the classification process.

11 Q. PLEASE DISCUSS THE CLASSIFICATION OF OPERATIONS AND 12 MAINTENANCE EXPENSES.

A. Operations and maintenance expenses were classified in a manner similar to their respective plant items, as shown in Figure 12. For example, Maintenance of Services (Account 892) was allocated based on the allocation of Services plant (Account 380).

Figure 12: O&M Expenses and Corresponding Rate Base Items

Acct.	Description	Corresponding Plant Accounts
874	Mains & Services Expenses	Mains (376) and Services (380) combined
878	Meter & House Regulator Exp.	Meters (381) and Regulators (383 and 385) combined
892	Maintenance of Services	Services (380)
893	Mains of Meters & House Regulators	Meters (381) and House Regulators (383) combined

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O&M expense items not directly associated with one of the classification categories, such as administrative and general expenses, were classified through a composite classifier 2 based on related costs. Schedule TSL-4 provides a full description of O&M expense 3 classifications. 4

PLEASE DESCRIBE IN GREATER DETAIL THE ALLOCATION PROCESS 5 Q. USED IN DEVELOPING THE COSS. 6

A. Costs were allocated to each rate class based on the costs incurred to serve that class. In short, cost allocation follows cost causation. This approach is well established in industry literature and is consistent with past cost of service studies approved by the Commission.⁸ The approach requires development of cost allocators that reflect the design of the natural gas system.

Q. WHAT ALLOCATORS WERE USED IN YOUR COSS?

- The COSS was developed based on three types of allocators 13 A.
 - 1. Class determinants class characteristics, such as number of customers, consumption and revenues by rate class;
 - 2. Special studies detailed analysis of specific plant or expense items, such as meters and uncollectible expenses; and
 - 3. Internal composite of how other costs are allocated.

Schedule TSL-4 contains a description of each allocator used in the COSS, including what costs are allocated, how each allocator was derived, and the rationale for utilizing the allocator. For example, the 'number of meters' allocator is used to allocate meter reading expenses based on the number of meters installed in each rate class. The

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⁸ See GR-2010-0192

rationale is that meter reading expenses are driven by the number of meters that are read monthly.

Q. PLEASE DESCRIBE THE PROCESS USED TO DEVELOP THE DEMAND ALLOCATOR.

The demand allocator is based on the Average and Peak Demand method. It is one of the methods recognized by NARUC for allocating demand costs. The allocator reflects each rate classes' responsibility to both peak or design day demands and average days demand of the system. The allocator uses load factor to identify peak day and average day demand responsibilities. Again, the approach is generally consistent with the approach used in GR-2010-0192.

The derivation of the allocator is included in Schedule TSL-9 and is a combination of peak day and average day demands. Average day demands were based on actual sales volumes for each customer class and the number of days in the year; *i.e.*, 365 days. The average day demands were then multiplied by the load factor to determine the 'average' component of the allocator.

The calculation of peak or design day demands consists of four steps. First, heat use per degree day per customer was based on the results of a regression analysis for each rate class of heat use per degree day per customer as a function of billing heating degree days. The regression analysis produced a strong R-squared, which measures how much variation in a dependent variable (in this case heat use per customer) can be explained by an independent variable (in this case heating degree days). Data for the heat use per customer variable was calculated as the difference between actual use per customer and

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⁹ NARUC Gas Distribution Rate Design Manual. Pg. 27

base use per customer, where base use per customer was the lowest average use of two consecutive months during July through September.

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The second step involved applying heat use per degree per customer to the design day degree days to derive design day heating use per customer. For the third step, the design day heating use per customer derived in the previous step was added to base use per customer to calculate total design day use per customer. The fourth step to determine peak day allocation was to multiply the number of customers for each class in the month of the design day by the design day use per customer for each class to calculate total design day use by class. The resulting design day allocation was multiplied by the balance of load factor to determine the 'peak' component of the allocator. The peak and average allocator was calculated by adding together the 'peak' and 'average' components. The results are shown on Schedule TSL-9.

Q. PLEASE DESCRIBE THE PROCESS USED TO DEVELOP THE FOUR SPECIAL STUDIES ALLOCATORS.

- There were four special studies developed to allocate meter investments, meter installations, service investments, regulators, and industrial customer investments. In aggregate, these investments represent 36, 43, and 45 percent of utility plant for the Company. The allocators were developed separately for each of the Company's three regions.
 - Meters and Meter Installation investments were allocated based on the current cost of meters by customer in each rate class weighted by the number of meters.
 Current costs were used since historic records of such costs are not maintained by individual meter, customer or rate class. The calculation recognizes there are

1		certain types of meter costs specific to each rate class and establishes a weighting
2		based on current records.
3		• <u>Service investment</u> was allocated based on the current cost of service line
4		installations by customer in each rate class weighted by the estimated number of
5		meters. Current costs were used for the same reason previously noted. The
6		calculation recognizes there are certain types of service installation costs specific
7		to each rate class and establishes a weighting based on current records.
8		• Regulators were allocated based on the current cost of regulators by customer in
9		each rate class weighted by the estimated number of customers. Current costs
10		were used for the same reason previously noted. The calculation recognizes there
11		are certain types of regulator costs specific to each rate class and establishes a
12		weighting based on current records.
13		• <u>Industrial customer investment</u> was allocated based on the investment in meters to
14		serve the largest customers on the system.
15		The derivation of the meter, meter installation, service investment and regulator allocator
16		is shown in Schedule TSL-10.
17	Q.	PLEASE DESCRIBE THE PROCESS USED TO DEVELOP THE COMPOSITE
18		ALLOCATORS.
19	A.	There are several composite allocators developed internally based on the allocation of
20		various plant investments and expenses. These are used to allocate cost items that cannot
21		be readily categorized. For example, general plant is allocated based on the composite
22		allocation of all production, transmission, storage, and distribution plant. This approach is

well established in industry literature¹⁰ and is consistent with the COSS methodology filed in GR-2010-0192.

Q. PLEASE DESCRIBE THE PROCESS USED TO ALLOCATE RATE BASE ITEMS TO THE CUSTOMER CLASSES.

The process used to allocate rate base to customer classes is included in Schedules TSL-5, TSL-6 and TSL-7 for the NEMO, SEMO and WEMO regions, respectively, and consists of the following four steps. First, gross plant investment by individual FERC account is allocated to each rate class based on an allocator that most closely reflects the underlying cost driver. Second, accumulated depreciation by individual FERC account is allocated to each rate class based on the same allocator as the gross plant investment for that account. Third, net plant investment by individual FERC account is calculated as the difference between gross plant investment and accumulated depreciation by individual FERC account. Lastly, additions and deletions to net plant investment are allocated to each rate class on the basis of an allocator that most closely reflects the underlying cost driver to form rate base. Total rate base is shown on Schedules TSL-5, TSL-6 and TSL-7 for the NEMO, SEMO and WEMO regions, respectively.

In general, the allocation of rate base followed the methodologies used in the most recent rate case filing before the Commission for Atmos Energy Corporation, the predecessor company to Liberty. Gross plant investment that is designed to meet the demands of the Company's customers was allocated to each rate class based on the peak and average allocator. Gross plant investment that is designed to connect customers to the

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¹⁰ NARUC Gas Distribution Rate Design Manual. Pg. 26

¹¹ In the Matter of Atmos Energy Corporation's Tariff Revision Designed to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Area of the Company. Filed December 28, 2009.

1		system and meet their service requirements was allocated to each rate class based on one
2		of the special studies described above.
3	Q.	PLEASE DESCRIBE THE ALLOCATION OF O&M EXPENSES TO THE
4		CUSTOMER CLASSES.
5	A.	The process used to allocate O&M expenses to customer classes is included in Schedules
6		TSL-5, TSL-6 and TSL-7 for the NEMO, SEMO and WEMO regions, respectively. As
7		discussed earlier, special studies were used to assign specific costs to customer classes.
8		• Customer Records and Collections Expense (Account 903) is separated into
9		customer service- and collections-related expenses. The customer service-related
10		expenses were allocated based on the number of customer bills, while collections-
11		related expenses were allocated based on the uncollectible expense allocator
12		described below.
13		• Uncollectible Expense (Account 904) is based on a direct assignment of net write-
14		offs for residential customers, and assignment of C&I write-offs based on C&I
15		classes' revenues.
16		• Customer Deposits and Interest on Customer deposits are allocated based on
17		number of bills.
18		V. OVERVIEW OF RATE DESIGN
19	Q.	PLEASE DESCRIBE THE PRINCIPLES USED TO GUIDE THE PROPOSED
20		RATE DESIGN.
21	A.	The proposed rate design was guided by several principles common throughout the
22		industry, including: (a) rates should recover the overall cost of providing service; (b) rates
23		should be fair, minimizing inter- and intra-class inequities to the extent possible; and (c)

rate changes should be tempered by rate continuity concerns.¹² In addition, the proposed rate design was guided by a Company-specific proposal to move toward a single set of rates for each rate class across the three regions; i.e., one set of rates for Residential, SGS, MGS, LGS and Interruptible customers across the three regions.

Because these principles can conflict, the rate design process also includes a level of judgment to balance these principles.

7 Q. HOW WERE THESE PRINCIPLES APPLIED IN THIS PROCEEDING?

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First, rates were designed to recover the overall cost of service. This was done by developing customer and consumption charges based on test year bills and usage. In addition, rates were designed to be fair and equitable. This was done by setting revenue targets at a level in aggregate closer to the system ROR. As discussed earlier, the results of the COSS show that some rate classes produce less than the overall ROR. The proposed rate design reduces that deficiency. Another rate design objective is to maintain pricing stability by minimizing the impact of changes in rates on customers. This objective was considered during both the setting of revenue targets, and again in reviewing the impact of proposed rates on customers' bills at various usage levels within customer classes.

Q. PLEASE DESCRIBE HOW THE PROPOSED RATE DESIGN ACHIEVES THE COMPANY'S OBJECTIVE TO DEVELOP A SINGLE SET OF CLASS RATES ACROSS THE THREE REGIONS?

A. The proposed rate design achieves the Company's objective to develop a single set of class rates across the three regions through a single rate design for each rate class across

¹² See Bonbright, James, Danielsen, Albert, and Kamerschen, David. "Principles of Public Utility Rates." Public Utilities Reports, Inc. pp. 377-407 (2nd Ed. 1988).

- the three regions. That is, residential customers in the NEMO, SEMO and WEMO regions would be billed the same customer and consumption charges.
- Q. PLEASE SUMMARIZE THE STEPS TAKEN TO DEVELOP THE PROPOSED
 RATES.
- The first step to develop the proposed rates was to establish the overall revenue requirement to be recovered from base rates. The next step was to set revenue targets for each rate class based on the results of the COSS, as shown on Schedule TSL-11. Rates within each customer class were then designed to recover the revenue requirements based on test year customer and usage data.
- 10 Q. WHAT IS THE TOTAL REVENUE REQUIREMENT THAT YOU USED AS A

 STARTING POINT?
- 12 A. To determine the total revenue requirement for each operating unit, I relied on
 13 information from the overall cost of service presented in the testimony and accounting
 14 schedules of Liberty witness Schwartz, which indicates a total revenue requirement of
 15 \$13.2 million, \$17.5 million and \$2.6 million for NEMO, SEMO and WEMO,
 16 respectively. As shown on Schedule TSL-5, TSL-6 and TSL-7 total revenue requirement
 17 was then reduced by revenues related to special contracts and other revenues to calculate
 18 base rate revenue requirements.
- 19 Q. PLEASE DESCRIBE THE PROCESS USED TO SET THE REVENUE
 20 REQUIREMENT TARGETS FOR EACH RATE CLASS.
- A. Since each rate class presently produces a ROR that is different than the overall system ROR, the starting point for setting the revenue targets for each rate class was based on their revenues at equalized rates of return.

1 Q. IN GENERAL, HOW DID YOU DETERMINE THE APPROPRIATE RATE 2 DESIGN WITHIN EACH RATE CLASS?

- A. The proposed rates were designed to recover 100 percent of the proposed revenue requirement. Specifically, rates were designed by first reviewing the customer charge to evaluate what level of fixed cost is reasonable to be recovered through customer charges consistent with rate design objectives identified above. This step included evaluating the existing customer and ISRS charges, as well as the results of the COSS. The charges were also designed as a single set of class rates across the three regions.
- Once customer charge levels were established, the remaining revenue requirement for each class was recovered via the consumption charges, as shown in Schedules TSL-12.

VI. RATE DESIGN AND BILL IMPACT ANALYSES

12 Q. PLEASE DESCRIBE THE PROCESS USED TO SET THE REVENUE
13 REQUIREMENT TARGETS FOR EACH RATE CLASS.

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- A. First, the process began with consolidating the COSS results across the three regions.

 The next step was to identify the consolidated rate classes producing less than their equalized rates of return; i.e., the Residential and SGS rate classes.
 - The Residential class presently generates revenues 73 percent of needed to achieve the system rate of return. Based on this deficiency, the revenue target for the Residential class was set based on a 50.0 percent movement toward revenues needed to achieve the system rate of return.
 - The SGS class presently generates revenues 54 percent of needed to achieve the system rate of return. Based on this deficiency, the revenue target for the SGS class was set

- based on a 50.0 percent movement toward revenues needed to achieve the system rate of return to balance bill continuity concerns.
- The revenue targets for the other rate classes were based on the revenues needed to achieve the system rate of return, adjusted for the revenue shortfall from the Residential and SGS rate class as discussed above. The LGS class received a slight lower increase than the MGS and Interruptible class to reflect the results of the COSS study.

Q. PLEASE DESCRIBE THE PROPOSED RATE DESIGN FOR EACH RATE CLASS.

9 A. The proposed rate design for each rate class is described below.

Residential

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The proposed rates were based on a consolidated revenue requirement target and billing determinants across the three regions of \$21.3 million, annual customer bills of 557,704 and annual usage of 29,558,131 CCF. The Company proposes to increase the monthly customer charge to \$22.50. This represents an increase to NEMO, SEMO and WEMO customers from \$20.00, \$13.75, and \$20.00 per month, respectively. The revenue requirement not recovered through the customer charge is to be recovered from a single volumetric charge of \$0.29446 per CCF. The proposed rate design and bill impact analysis by region are included in Schedule TSL-12.

Small General Service

The proposed rates were based on a consolidated revenue requirement target and billing determinants of \$3.4 million, annual customer bills of 71,581 and annual usage of 8,022,149 CCF. The Company proposes to increase the monthly customer charge to \$34.00. This represents an increase to NEMO, SEMO and WEMO customers from

\$28.26, \$17.46, and \$23.80 per month, respectively. The revenue requirement not recovered through the customer charge is to be recovered from a single volumetric charge of \$0.11716 per CCF. The proposed rate design and bill impact analysis by region are included in Schedule TSL-12.

Medium General Service

The proposed rates were based on a consolidated revenue requirement target and billing determinants of \$4.3 million, annual customer bills of 10,743 and annual usage of 10,141,947 CCF. The Company proposes to increase the monthly customer charge to \$140.00. This represents an increase to NEMO, SEMO and WEMO customers from \$124.60, \$126.99, and \$118.01 per month, respectively. The revenue requirement not recovered through the customer charge is to be recovered from a single volumetric charge of \$0.27935 per CCF. The proposed rate design and bill impact analysis by region are included in Schedule TSL-12.

Large General Service

The proposed rates were based on a consolidated revenue requirement target and billing determinants of \$3.4 million, annual customer bills of 630 and annual usage of 16,505,651 CCF. The Company proposes to increase the monthly customer charge \$750.00. This represents an increase to NEMO, SEMO and WEMO customers from \$623.01, \$634.95, and \$590.03 per month, respectively. The revenue requirement not recovered through the customer charge is to be recovered from a single volumetric charge of \$0.17926 per CCF. The proposed rate design and bill impact analysis by region are included in Schedule TSL-12.

Interruptible Service

The proposed rates were based on a consolidated revenue requirement target and billing determinants of \$0.4 million, annual customer bills of 65 and annual usage of 1,606,679 CCF. The Company proposes to increase the monthly customer charge to \$750.00. This represents an increase to NEMO and SEMO customers from \$623.01, and \$634.95 per month, respectively. The revenue requirement not recovered through the customer charge is to be recovered from a single volumetric charge of \$0.18908 per CCF. The proposed rate design and bill impact analysis by region are included in Schedule TSL-12.

A.

Q. HAVE YOU EXAMINED THE IMPACT OF YOUR PROPOSED CHANGES IN RATES ON CUSTOMERS WITHIN EACH RATE CLASS BY REGION?

Yes. As shown in Schedule TSL-12, the Company evaluated the bill impacts of the proposed changes on customers by region based on a range of annual usage within each rate class. The range of annual usage represents a distribution across the rate classes. The proposed annual bill is based on the proposed base rates. The current annual bill is based on the current base rates plus the current ISRS rates. The bill impact analysis was calculated using two approaches: (a) without a PGA charge, to evaluate only the change in the delivery portion of the customer bill; and (b) with a PGA charge, to evaluate the change in the total customer bill.

VII. VOLUME BALANCING ACCOUNT RIDER ("RIDER VBA")

19 Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED RIDER VBA.

A. The proposed Rider VBA is designed to decouple the Company's revenues from the Company's sales volume, reducing the challenge faced by many gas utilities without a Rider VBA (or similar rate mechanism) of over- and under- recovery of fixed costs resulting from fluctuations in customer usage. Company witness Hevert discusses the

purpose and overall benefits of Rider VBA in his testimony. This testimony is limited to sponsoring an explanation of the mechanics of Rider VBA. The proposed Rider VBA is included in Schedule TSL-13. This mechanism is reasonably designed to provide the Company with a sufficient opportunity to earn a fair return on equity, and includes provisions for an annual true-up which accurately and appropriately remedies any over-or under-collection of fixed costs, including interest at the Company's short-term borrowing rate, through subsequent rate adjustments or refunds.

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8 Q. PLEASE DESCRIBE HOW THE COMPANY'S PROPOSED RIDER VBA WILL 9 OPERATE.

The proposed Rider VBA is modeled after the Company's Rider VBA currently in effect in Illinois, although I should note that there is also statutory authorization for such a mechanism in Missouri. Under the proposed Rider VBA, the Company would reconcile annually differences between actual and authorized revenues (*i.e.*, revenues reflected in current base rates that were approved by the Commission in the most recent rate case proceeding). Under the proposed rider, the Company would file annually on or before April 30th workpapers that support the annual reconciliation between actual and authorized revenues. The Company proposes that the Commission would then conduct a review of the filing, including calculation of the annual reconciliation and proposed surcharges/ credits. Upon approval, the proposed surcharges/ credits would be assessed on customer bills over the subsequent nine-month period beginning June 1st.

Q. THE RIDER VBA WOULD APPLY TO WHICH RATE CLASSES?

22 A. The proposed Rider VBA would apply only to the Company's Residential and Small
23 General Service rate classes.

Q. WHAT ARE THE PROPOSED REPORTING REQUIREMENTS?

A.

The proposed Rider VBA would require the Company to file with the Commission an information statement on or before April 30th of each year that specifies the annual reconciliation and proposed surcharges/ credits to be effective under the Rider VBA. Specifically, the Company would be required to file at least two reports: (1) a report showing calculation of the annual reconciliation (*i.e.*, the dollar amount to be recovered or refunded as a result of the reconciliation) and the proposed surcharges/ credits (*i.e.*, the surcharge/ credit in \$ per CCF that would be recovered from customers or refunded to customers, respectively, as a result of the reconciliation), and (2) a report showing the Company's rate of return with and without the effect of the VBA rider.

Furthermore, the Company will specify in its proposed compliance filing the authorized revenues reflected in the approved base rates for the Residential and Small General Service rate classes. This procedure will be repeated in subsequent proceedings in which base rate revenues are reset.

Q. DOES THE PROPOSED RIDER VBA CONTAIN AUDIT REQUIREMENTS?

- A. Yes, the proposed Rider VBA contains several audit requirements. The proposed Rider VBA requires the Company to conduct annually an internal audit of the revenues recovered or refunded pursuant to Rider VBA. The audit performs several tests, including:
 - Verify the accuracy of the annual reconciliation of actual and authorized revenues, including calculation of the annual reconciliation and proposed surcharges/ credits;

1		• Verify whether the annual reconciliation reflects actual revenues collected
2		through other approved tariffs;
3		• Verify whether the surcharges/ credits under Rider VBA are properly billed to
4		customers (i.e., accurate and timely);
5		• Verify whether the surcharge/ credit revenues under Rider VBA are properly
6		recorded and reported on the Company's financial statements (i.e., accurate,
7		timely and in appropriate accounts).
8		The Company would file a copy of the audit report with the Commission by May 31st of
9		each year. The audit report would include a statement, verified by an officer of the
10		Company, attesting that the audit report is a true and complete copy.
11	Q.	HOW WILL RIDER VBA OPERATE WHEN WEATHER IS COLDER OR
12		WARMER THAN NORMAL?
13	A.	In general, in years when weather is colder than normal, the Company's actual revenues
14		will be higher than authorized revenues, resulting in a credit to customers. This will help
15		prevent over-recovery of fixed costs when weather is colder-than-normal and actual
16		revenues are higher than authorized revenues and provide customers with a bill credit
17		when those same factors have made their bills higher than normal, all else being equal.
18		Conversely, in years when weather is warmer-than-normal, the Company's actual
19		revenues will be lower than the authorized revenues, resulting in a surcharge to customers
20		at a time the same factors have made their bills lower than normal, all else being equal.
21		This prevents under-recovery of fixed costs when weather is warmer-than-normal and
22		actual revenues are lower than authorized revenues.

1 Q. WILL THE PROPOSED RIDER VBA ADJUST THE COMPANY'S

AUTHORIZED BASE REVENUES?

Α.

A. No, the Rider VBA does not adjust the Company's authorized base revenues. The

Company's authorized base revenues would be adjusted only by the Commission during

a proceeding in which base rate revenues are reset. The purpose of Rider VBA is to help

ensure that the Company's actual revenues are consistent with authorized revenues

approved by the Commission in its most recent rate case proceeding.

VIII. <u>CAPITAL RELIABILITY TRACKER ("CR TRACKER")</u>

Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED CR TRACKER.

The proposed CR Tracker is designed to defer through a regulatory asset for future recovery in rates carrying costs associated with incremental capital spending that has not been included in the Company's rate base used to set current base rates (*i.e.*, capital spending that is <u>not</u> reflected in current base rates). Under CR Tracker, investments in the Company's production, transmission and distribution plant facilities would be included in the CR Tracker until those investments are reflected in base rates. The Company proposes to include these facilities in the CR Tracker since they form the basis for infrastructure spending to provide safe and reliable service to customers. The CR Tracker would not include capital spending related to the Company's investments in general plant facilities.

Q. PLEASE DESCRIBE HOW THE COMPANY'S PROPOSED CR TRACKER WILL OPERATE.

A. Under the proposed CR Tracker, the Company will calculate annually the carrying costs associated with the incremental capital spending that has not been reflected in current

base rates. The Company proposes that the Commission would then conduct a review of
the prudence of the facilities, including calculation of the carrying costs in its next rate
case. Assuming the Commission found the facilities were needed and prudently
constructed, the carrying costs and the rate base additions would be included in rates in
the next rate case.

6 Q. TO WHICH RATE CLASSES WOULD THE CR TRACKER APPLY?

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7 A. The proposed CR Tracker would apply to all of the Company's rate classes, including Residential, Small, Medium, and Large General Service and Interruptible rate classes.

9 Q. HOW WOULD THE COMPANY DETERMINE INCREMENTAL CAPITAL 10 SPENDING?

A. Incremental capital spending would be based on the difference between the Company's net investment in production, transmission and distribution plant facilities on December 31st of each year, and the Company's net investment in production, transmission and distribution plant facilities included in the Company's current base rates (*i.e.*, net investment included in rate base that was relied upon in setting current base rates).

Q. HOW WOULD THE COMPANY DETERMINE CARRYING COSTS?

17 A. Carrying costs would be determined as the sum of three components: (a) pre-tax average
18 cost of capital, (b) annual depreciation, and (c) Ad Valorem Taxes, to the extent not
19 recovered through another rate mechanism. The components would be calculated
20 separately in the following manner:

¹³ Separately, the Company has proposed a tracker to track and reconcile actual Ad Valorem Taxes incurred during the year with Ad Valorem Taxes reflected in current base rates. To the extent that the Commission approves the proposed tracker to track and reconcile Ad Valorem Taxes, then the Company would remove the Ad Valorem Taxes component from calculation of carrying costs in the CR. Tracker

 Pre-tax average cost of capital would be based on the overall pre-tax rate of return approved by the Commission in the Company's most recent rate case and applied to the Company's net investment on December 31st of each year that is not reflected in current base rates.

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- Annual depreciation would be based on the composite book depreciate rate approved by the Commission in the Company's most recent rate case and applied to the Company's net investment on December 31st of each year that is not reflected in current base rates.
- Ad Valorem taxes would be based on the composite Ad Valorem Tax rate included in the most recent rate case proceeding and applied to the Company's net investment on December 31st of each year that is not reflected in current base rates.

IX. OPERATIONS AND MAINTENANCE ("O&M") TRACKERS

Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED O&M TRACKERS.

The Company proposes three additional trackers to track and reconcile actual expenses incurred during the year with those reflected in current base rates with variations treated as regulatory assets or liabilities under Accounts 182.3 (other regulatory assets) and 254 (other regulatory liabilities) under the FERC USOA. The proposed trackers would track and reconcile expenses related to the following items: (a) Ad Valorem Taxes; (b) Bad Debt expenses; and (c) Vegetation or Right-of-Way Management expenses. The proposed trackers are designed to recover the difference between actual expenses incurred during the year with "target" expenses that are reflected in current base rates. All expenses related to Ad Valorem Taxes, Bad Debt and Vegetation Management are eligible to be included in their respective trackers.

1 Q. TO WHICH RATE CLASSES WOULD THE O&M TRACKERS APPLY?

- 2 A. The proposed O&M trackers would apply to all of the Company's rate classes, including
- Residential, Small, Medium, and Large General Service and Interruptible rate classes.

4 Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED AD VALOREM TAX

- 5 TRACKER ("AVT TRACKER").
- A. The Company requests that an ad valorem/ property tax tracking mechanism ("AVT 6 7 Tracker") be authorized in this case to ensure the appropriate recovery of rising property 8 tax expenses. The Company is proposing an ad valorem/ property tax tracker would be structured similarly to most other tracking mechanisms in Missouri. Under the proposed 9 AVT Tracker, the Company would reconcile annually the difference between actual Ad 10 Valorem Taxes incurred for the twelve-months ending December 31st of each year and 11 target Ad Valorem Taxes that are reflected in current base rates (i.e., Ad Valorem Taxes 12 that were included in O&M expenses and relied upon in setting current base rates) with 13 incremental changes treated as regulatory assets or liabilities under Accounts 182.3 (other 14 regulatory assets) and 254 (other regulatory liabilities) under the FERC USOA. 15

16 Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED BAD DEBT TRACKER 17 ("BD TRACKER").

18 A. The Company requests that a bad debt tracking mechanism be authorized in this case to
19 ensure the appropriate recovery of bad debt expenses. The Company proposes that a bad
20 debt tracker would be structured similarly to most other tracking mechanisms in
21 Missouri. Under the proposed BD Tracker, the Company would reconcile annually the
22 difference between average annual Bad Debt expenses incurred and target Bad Debt
23 expenses that are reflected in current base rates (*i.e.*, Bad Debt expenses that were

included in O&M expenses and relied upon in setting current base rates revenues). We propose that bad debt expenses, as defined in this tracker, be set in this rate proceeding at the expense level determined in the true-up in this case. The Company would then track its actual bad debt expenses on an annual basis against this amount, with the Missouri jurisdictional portion of any excess treated as a regulatory asset (Account 182) and the Missouri jurisdictional portion of any shortfall treated as a regulatory liability (Account 254). The Company is requesting that carrying costs be accrued on amounts. The carrying costs would be calculated monthly by applying the monthly short-term interest rate to the account balance. We propose that the regulatory asset or liability be amortized to cost of service in the Company's next rate proceeding over the same length of period as costs are accumulated. The Company would reset the level of ongoing bad debt expense in base rates in the next rate case, similar to how ongoing pension costs are reset each case.

Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED VEGETATION MANAGEMENT/ RIGHT-OF-WAY TRACKER ("ROW TRACKER").

A.

The Company requests that a vegetation management/ right-of-way ("ROW") tracking mechanism be authorized in this case to ensure the appropriate recovery of expenses incurred and to help better manage the cyclical nature of vegetation management/ ROW activities throughout the service territory. The use of a tracker for vegetation management/ ROW costs will enable the Company to schedule and perform this work in the most efficient manner. The Company proposes that a vegetation management/ ROW tracker would be structured similarly to most other tracking mechanisms in Missouri. We propose that annual vegetation management/ ROW expenses, as defined in this tracker,

be set in this rate proceeding at the expense level determined in the true-up in this case. 1 The Company would then track its actual vegetation management expenses/ ROW 2 expenses on an annual basis against this amount, with the portion of any excess treated as 3 a regulatory asset (Account 182) and the shortfall treated as a regulatory liability 4 (Account 254). The Company is requesting that carrying costs be accrued on amounts. 5 The carrying costs would be calculated monthly by applying the monthly short-term 6 interest rate to the account balance. We propose that the regulatory asset or liability be 7 8 amortized to cost of service in the Company's next rate proceeding over the same length of period as costs are accumulated. The Company would reset the level of ongoing 9 vegetation management/ ROW expense in base rates in the next rate case, similar to how 10 11 ongoing pension costs are reset each case. Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY? 12

Yes.

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Liberty Utilities (Midstates Natural Gas) Corp. Case No. GR-2018-0013 Schedule TSL-1 Page 1 of 3

Testimony Experience
Timothy S. Lyons
ScottMadden, Inc.

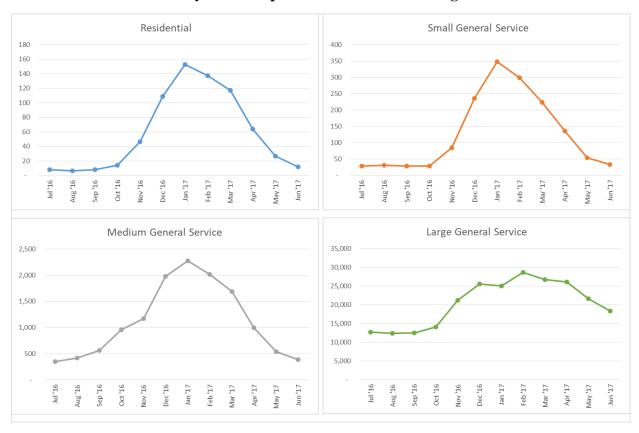
Sponsor	Date	Docket No.	Subject
Regulatory Commission of Alaska	-		
ENSTAR Natural Gas Company	06/16	Docket No. U-16-066	Adopted testimony and sponsored lead-lag study.
Connecticut Public Utilities Regulator	ry Authority	/	
Yankee Gas Company	07/14	Docket No. 13-06-02	Sponsored report and testimony for review and evaluation of gas expansion policies, procedures and analysis.
Illinois Commerce Commission			
Liberty Utilities (Midstates Natural Gas)	07/16	Docket No. 16-0401	Sponsored testimony for cost of service, rate design and bill impact studies for a general rate case proceeding. The testimony includes proposal for new commercial classes and a decoupling mechanism.
Iowa Utilities Board			
Liberty Utilities (Midstates Natural Gas)	07/16	Docket No. RPU-2016-0003	Sponsored testimony for cost of service, rate design and bill impact studies for a general rate case proceeding. The testimony includes proposal for new commercial classes.
Maine Public Utilities Commission			
Northern Utilities, Inc. d/b/a Unitil Gas Limited	06/15	Case No. 2015-00146	Sponsored testimony for proposed gas expansion program, including a zone area surcharge.
Maryland Public Service Commission)		
Sandpiper Energy, Inc.	12/15	Case No. 9410	Sponsored testimony for cost of service, rate design and bill impact studies for a general rate case proceeding. The testimony includes proposal for new residential and commercial classes.
Massachusetts Department of Public	Utilities		
Boston Gas	03/88	Docket No. DPU 88-67-II	Sponsored testimony for rate reclassification of commercial and industrial customers for rate design proceeding.
Boston Gas	03/90	DPU 90-55	Sponsored testimony for weather and other cost of service adjustments, rate design and customer bill impact studies for general rate case proceeding.
Boston Gas	10/93	DPU 92-230	Sponsored testimony describing the Company's position regarding rate treatment of vehicular natural gas investments and expenses.
Missouri Public Service Commission			
Laclede Gas Company	04/17	Docket No. GR-2017-0215	Sponsored testimony for cost of service, rate design, bill impact and lead-lag studies.
Missouri Gas Energy	04/17	Docket No. GR-2017-0216	Sponsored testimony for cost of service, rate design, bill impact and lead-lag studies.

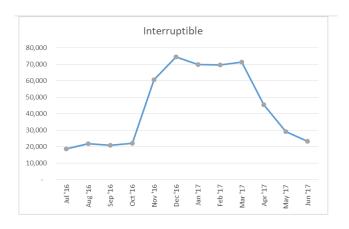
Sponsor	Date	Docket No.	Subject
New Hampshire Public Utilities Comm			
Liberty Utilities d/b/a Granite State Electric Company	04/16	Docket No. DE 16-383	Adopted testimony and sponsored lead-lag study.
New Jersey Board of Public Utilities			
Pivotal Utility Holdings, Inc. d/b/a Elizabethtown Gas Company	8/16	GR16090826	Sponsored testimony for lead-lag study
Rhode Island Public Utilities Commiss	sion		
Providence Gas Company	01/96	Docket No. 2076	Sponsored testimony for rate reclassification of customers into new rate classes, rate design (including introduction of demand charges), and customer bill impact studies for rate design proceeding.
Providence Gas Company	11/92	Docket No. 2025	Sponsored testimony supporting the Integrated Resource Plan filing, including a performance-based incentive mechanism.
Providence Gas Company	02/96	Docket No. 2374	Sponsored testimony for rate design, customer bill impact studies and retail access tariffs for largest commercial and industrial customers for rate design proceeding.
Providence Gas Company	04/97	Docket No. 2552	Sponsored testimony for rate design, customer bill impact studies and retail access tariffs for commercial and industrial customers, including redesign of cost of gas adjustment clause, for rate design proceeding.
Providence Gas Company	08/01 09/00 08/96	Docket No. 1673	Sponsored testimony for changes in cost of gas adjustment factor related to projected under-recovery of gas costs; Filed testimony and witness for pilot hedging program to mitigate price risks to customers; Filed testimony and witness for changes in cost of gas adjustment factor related to extension of rate plan.
Providence Gas Company	06/97	Docket No. 2581	Sponsored testimony for rate plan that fixed rates for three-year period; included funding for critical infrastructure investments in accelerated replacement of mains and services, digitized records system, and economic development projects.
Providence Gas Company	08/00	Docket No. 2581	Sponsored testimony for extension of rate plan that began in 1997 and included certain modifications, including a weather normalization clause.
Providence Gas Company	03/00	Docket No. 3100	Sponsored testimony for de-tariff and deregulation of appliance repair service, enabling the Company to have needed pricing flexibility.
Railroad Commission of Texas			
CenterPoint Energy – Texas Gulf Division	11/16	GUD No. 10567	Sponsored testimony for lead-lag study.
Atmos Pipeline – Texas	01/17	GUD No. 10580	Sponsored testimony for lead-lag study.

Liberty Utilities (Midstates Natural Gas) Corp.
Case No. GR-2018-0013
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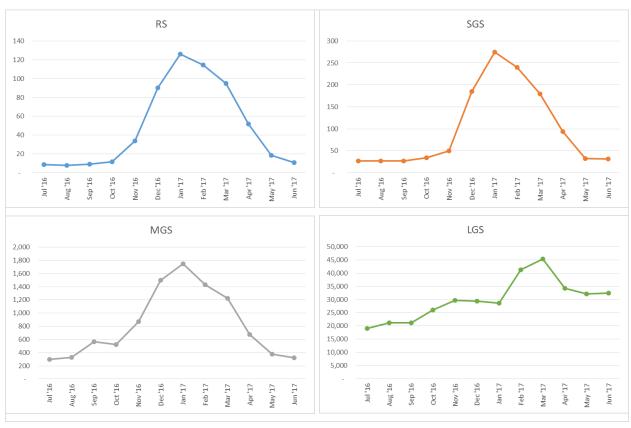
Sponsor	Date	Docket No.	Subject		
Vermont Public Service Board					
Vermont Gas Systems	02/11	Docket No. 7712	Sponsored testimony for market evaluation and analysis to support establishment of system expansion and reliability fund.		
Vermont Gas Systems	12/12	Docket No. 7970	Sponsored testimony describing the customers to be served by a \$90 million natural gas expansion project to Addison County, Vermont; also describing the benefits of the project as well as the Company's programs and service offerings.		

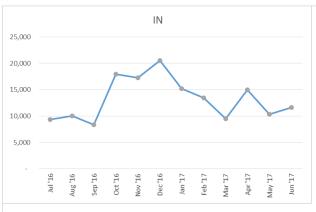
Analysis of Use per Customer: NEMO Region





Analysis of Use per Customer: SEMO Region



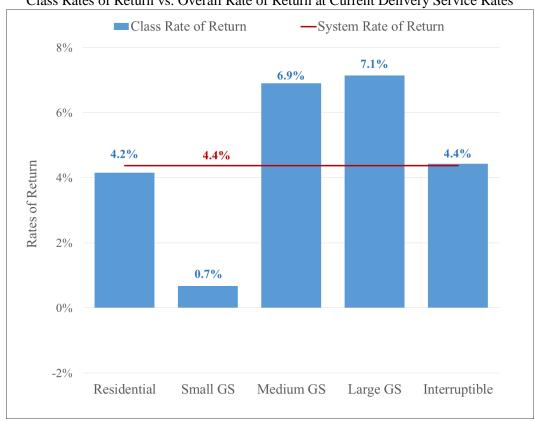


Analysis of Use per Customer: WEMO Region



Cost of Service Summary: NEMO Region

Class Rates of Return vs. Overall Rate of Return at Current Delivery Service Rates

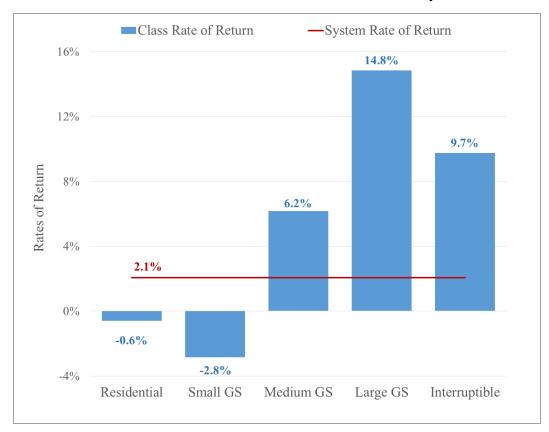


Cost of Service Summary: NEMO Region

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large		
COSS Summary	Total	Residential		General Srv	General Srv	General Srv	Int	erruptible
	Company	RS		SGS	MGS	LGS		IN
Current Delivery Service Rates								
Rate base	41,662,885	24,932,760		5,707,896	6,812,162	3,306,558		903,509
Net operating income	1,821,074	1,036,464		38,338	470,129	236,081		40,062
Rate of return	4.37%	4.16%		0.67%	6.90%	7.14%		4.43%
Relative rate of return	100%	95%		15%	158%	163%		101%
Revenues	\$ 11,043,348	\$ 7,405,217	\$	1,037,243	\$ 1,613,736	\$ 811,828	\$	175,322
Test Period Usage (CCF)	24,336,983	11,243,129		3,270,045	4,440,882	4,328,322		1,054,605
Revenue per CCF	\$ 0.4538	\$ 0.6586	\$	0.3172	\$ 0.3634	\$ 0.1876	\$	0.1662
Revenues at Equalized Rates of Return								
Rate of return	7.640%	7.640%		7.640%	7.640%	7.640%		7.640%
Return requirement	3,183,044	1,904,863		436,083	520,449	252,621		69,028
Revenue required	13,253,929	8,814,694		1,682,814	1,695,410	838,673		222,337
Revenue deficiency	2,210,581	1,409,477		645,571	81,674	26,845		47,015
Percent increase required	20.0%	19.0%		62.2%	5.1%	3.3%		26.8%
Test Period Usage (CCF)	24,336,983	11,243,129		3,270,045	4,440,882	4,328,322		1,054,605
Revenue Required per CCF	\$ 0.5446	\$ 0.7840	\$	0.5146	\$ 0.3818	\$ 0.1938	\$	0.2108
Revenue Deficiency per CCF	\$ 0.0908	\$ 0.1254	\$	0.1974	\$ 0.0184	\$ 0.0062	\$	0.0446
	Revenue Re	quirements						
Rate Class	Class ROR	Overall ROR						
Residential	4.16%	4.37%						
Small GS	0.67%	4.37%	_					
Medium GS	6.90%		_					
Large GS	7.14%	4.37%	_					
Interruptible	4.43%	4.37%	_					

Cost of Service Summary: SEMO Region

Class Rates of Return vs. Overall Rate of Return at Current Delivery Service Rates

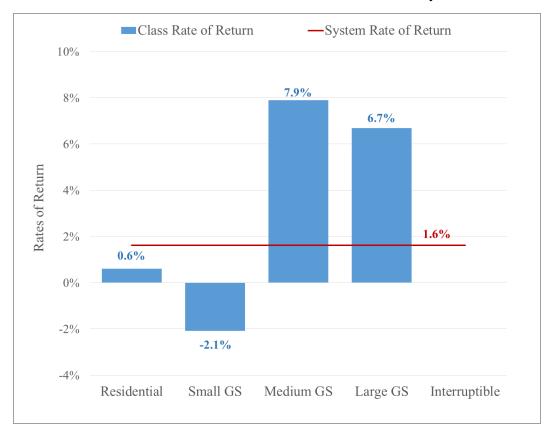


Cost of Service Summary: SEMO Region

<u>Liberty Utilities (SEMO)</u>				Small	Medium	Large		
COSS Summary	Total	Residential		General Srv	General Srv	General Srv	Inte	erruptible
	Company	RS		SGS	MGS	LGS		IN
Current Delivery Service Rates								
Rate base	50,591,558	30,402,228	_	5,928,034	8,127,752	5,696,397		437,147
Net operating income	1,041,659	(179,353		(168,593)	501,488	845,497		42,620
Rate of return	2.06%		_	-2.84%				9.75%
Relative rate of return	100%		5	-138%	300%			474%
Revenues	\$ 12,885,046	\$ 7,606,347	\$	945,237	\$ 1,935,198	\$ 2,269,512	\$	128,752
Test Period Usage (CCF)	36,783,781	16,044,302		4,025,648	5,206,401	10,955,357		552,074
Revenue per CCF	\$ 0.3503	\$ 0.4741	\$	0.2348	\$ 0.3717	\$ 0.2072	\$	0.2332
Revenues at Equalized Rates of Return								
Rate of return	7.640%	7.640%	ś	7.640%	7.640%	7.640%		7.640%
Return requirement	3,865,195	2,322,730		452,902	620,960	435,205		33,398
Revenue required	17,467,860	11,667,419		1,953,970	2,129,111	1,603,577		113,784
Revenue deficiency	4,582,814	4,061,072		1,008,733	193,913	(665,935)		(14,968)
Percent increase required	35.6%	53.4%	5	106.7%	10.0%	-29.3%		-11.6%
Test Period Usage (CCF)	36,783,781	16,044,302		4,025,648	5,206,401	10,955,357		552,074
Revenue Required per CCF	\$ 0.4749	\$ 0.7272	\$	0.4854	\$ 0.4089	\$ 0.1464	\$	0.2061
Revenue Deficiency per CCF	\$ 0.1246	\$ 0.2531	\$	0.2506	\$ 0.0372	\$ (0.0608)	\$	(0.0271)
	Revenue Re	equirements						
Rate Class	Class ROR	Overall ROF	2					
Residential	-0.59%	2.06%	Ś					
Small GS	-2.84%		_					
Medium GS	6.17%		_					
Large GS	14.84%		_					
Interruptible	9.75%		_					

Cost of Service Summary: WEMO Region

Class Rates of Return vs. Overall Rate of Return at Current Delivery Service Rates



Cost of Service Summary: WEMO Region

Liberty Utilities (WEMO)				Small	Medium	Large	
COSS Summary		Total	Residential	General Srv	General Srv	General Srv	Interruptibl
		Company	RS	SGS	MGS	LGS	II
Current Delivery Service Rates							
Rate base		6,912,209	4,304,022	1,091,002	656,484	860,701	
Net operating income		112,546	25,860	(22,724)	51,829	57,580	
Rate of return		1.63%	0.60%	-2.08%	7.89%	6.69%	
Relative rate of return		100%	37%	-128%	485%	411%	
Revenues	\$	1,919,548	\$ 1,276,439	\$ 210,880	\$ 183,399	\$ 248,829	
Test Period Usage (CCF)		4,713,793	2,270,699	726,456	494,665	1,221,973	
Revenue per CCF	\$	0.4072	\$ 0.5621	\$ 0.2903	\$ 0.3708	\$ 0.2036	
Revenues at Equalized Rates of Return							
Rate of return		7.640%	7.640%	7.640%	7.640%	7.640%	
Return requirement		528,093	328,827	83,353	50,155	65,758	
Revenue required		2,594,011	1,768,178	383,049	180,682	262,102	
Revenue deficiency		674,463	491,739	172,169	(2,717)	13,273	
Percent increase required		35.1%	38.5%	81.6%	-1.5%	5.3%	
Test Period Usage (CCF)		4,713,793	2,270,699	726,456	494,665	1,221,973	
Revenue Required per CCF	\$	0.5503	\$ 0.7787	\$ 0.5273	\$ 0.3653	\$ 0.2145	
Revenue Deficiency per CCF	\$	0.1431	\$ 0.2166	\$ 0.2370	\$ (0.0055)	\$ 0.0109	
		Revenue Re	<u>equirements</u>				
Rate Class	Í	Class ROR	Overall ROR				
Residential		0.60%	1.63%				
Small GS		-2.08%	1.63%				
Medium GS		7.89%	1.63%				
Large GS		6.69%	1.63%				
Interruptible		0.00%	1.63%				

Summary of Classifiers

Classifier	Classification of:	Classifier Derivation	Rationale
Customer Factor (CUS)	Rate Base: Account 380: Services Account 381 - Meters Account 382 - Meter Installations Account 383 - House Regulators Account 384 - House Regulators Installations Account 385 - Commercial & Industrial Measuring and Regulating Equipment Customer Deposits	Customer-related costs.	Costs related to providing customer-related services.
	Cost of Service: Account 876 - Measuring and Regulating Station Expenses - Industrial Account 878 - Meter and House Regulator Expense Account 879 - Customer Installation Expenses Account 890 - Maintenance of Measuring and Regulating Equipment-Industrial Account 892 - Maintenance of Services Account 893 - Maintenance of Meters and House Regulators Accounts 901 through 916 - Customer Account, Customer Services, and Sales and Advertising Expenses		

Classifier	Classification of:	Classifier Derivation	Rationale
Demand Factor (DEM)	Rate Base: All Transmission Plant Accounts 378 and 379 – Measuring and Regulating Station Equipment	Demand-related costs.	Costs related to providing demand- related services.
	Cost of Service: All Transmission-related Expenses Account 872 – Compressor Station Labor and Expense Account 875 - Measuring and Regulating Station Expense-General Account 877 - Measuring and Regulating Station Expenses - City Gate		
Commodity Factor (COM)	Rate Base: Storage Gas Cost of Service:	Commodity-related costs.	Costs related to providing supply- related services.
	All Gas Production Expenses Account 871 - Distribution and Load Dispatching		
Transmission and Distribution Factor (T&D)	Rate Base: All Intangible Plant All General Plant Accounts Accumulated Deferred Income Taxes Rate Base Offset	Composite classifier based on classification of Transmission, and Distribution Plant.	General Plant operations generally supports T&D Plant operations
Distribution Plant Factor (DP) [excluding Accounts 374, 375, 387]	Rate Base: Account 374, 375, and 387	Composite classifier based on classification of Distribution Plant, excluding Accounts 374-375, 387.	Other Distribution Plant operations generally consistent with classification of Distribution Plant
Mains and Services Factor (MAINSVC)	Rate Base: Customer Advances Cost of Service: Account 874 – Mains & Services Expenses	Composite classifier based on Accounts 376 and 380.	Items generally consistent with classification of Account 376 Mains and Account 380 Services.

Classifier	Classification of:	Classifier Derivation	Rationale
Total Plant Factor (TOTPLT)	Ad Valorem Taxes	Composite classifier based on gross plant.	Ad Valorem taxes generally consistent with classification of Total Plant
Accounts 871-879 Factor (OPER)	Cost of Service: Account 870 – Supervision and Engineering Account 880 – Other Expenses Account 881 – Rents	Composite classifier based on Distribution Operations expenses.	Items generally consistent with Distribution Operations expenses.
Non-Administrative and General O&M Classifier (OM(F))	Rate Base: Prepaid Expenses Regulatory Asset – Energy Efficiency Cost of Service: All Administrative and General (A&G) Expenses	Composite classifier based on total operating expenses, excluding administrative and general expenses.	Items generally consistent with Operation and Maintenance Expenses.
Cash Working Capital Classifier (CWC)	Rate Base: Cash Working Capital	Composite classifier based on an average of several classifiers, including commodity classifier, Non-A&G expense classifier, Other Taxes classifier, and Gross Plant classifier.	Cash Working Capital generally consists of gas costs, O&M expenses, other taxes, and plant accounts.
Other Taxes Classifier (OT)	Cost of Service: Other Taxes	Composite classifier based 75 percent Gross Plant and 25 percent Non-A&G O&M Expenses.	Other Taxes generally follow Gross Plant and O&M expense items.
Distribution Mains Factor (DISMAIN)	Account 376 - Mains	Mains Classifier based on Minimum-System Study	Investment in distribution mains related to providing customer-related and demand-related services. Methodology to develop classifier consistent with Company's approach in prior study.

Summary of Allocators

Allocator	Allocation of:	Allocator Derivation	Rationale
Number of Bills Allocator (B)	Customer-related expenses including: Account 901 - Supervision Account 907 through Account 916 – Customer Service, and Sales Promotion related expenses	Allocator is based on the percentage of bills within each rate class.	Costs are generally related to the number of customers. This is consistent with the approach taken in the most recent cost of service study.
Customer Deposits Allocator (CD)	Customer Deposits Interest on Customer Deposits	Allocator is based on the number of customers within residential, SGS, and MGS customer classes.	Customer deposits are generally related to the number of customers in residential, small, and medium general service customer classes. This is consistent with the approach taken in the most recent cost of service study.
Meters Quantity (MQ)	Account 902 – Meter Reading Expenses	Allocator is based on the number of meters associated with each rate class.	Meter Reading costs are generally related to the number of meters. This is consistent with the approach taken in the most recent cost of service study.
Meters Investment (MI)	Account 381 – Meters Account 382 – Meter Installations	Allocator is based on the number of meters by type in each rate class and by the current cost of each meter by type.	Costs are generally related to the number of meters and the cost of each meter. This is generally consistent with the approach taken in the most recent cost of service study.

Allocator	Allocation of:	Allocator Derivation	Rationale
Regulators Allocator (R)	Account 383 - House Regulators Account 384 - House Regulators Installations	Allocator is based on the number of meters by type in each rate class and by the current regulator cost of each meter by type.	Costs are generally related to the number of regulators and the cost of each regulator for each customer class. This is generally consistent with the approach taken in the most recent cost of service study.
Services Allocator (SV)	Account 380 - Services Account 892 - Maintenance of services expenses	Allocator is based on the number of services installed in each rate class and by the cost of each service installed.	Costs are generally related to the number of services and the cost of services for each customer class. This is generally consistent with the approach taken in the most recent cost of service study.
Meters and Regulators (M&R)	Account 878 - Meter and House Regulator Expense Account 893 - Maintenance of Meters and House Regulators	Allocator is based on the total cost of meters and regulators installed in each rate class.	Costs are generally related to meter and house regulators costs for each customer class. This is generally consistent with the approach taken in the most recent cost of service study.
Meters, Regulators, and Services (MRS)	Account 879 – Customer Installations Expenses	Allocator is based on the total cost of meters, regulators, and services installed in each rate class.	Costs are generally related to meters, regulators, and services for each customer class. This is generally consistent with the approach taken in the most recent cost of service study.
Account 903 Allocator (903Expense)	Account 903 - Customer records and collections	Allocator derived by allocating customer records expenses based on number of bills, and collection expenses based on uncollectible expenses.	Customer records expenses generally follow the number of bills for each customer class. Collection expenses generally follow uncollectible expenses. This is different from prior study which allocated costs based on the number of bills.

Allocator	Allocation of:	Allocator Derivation	Rationale
Account 904 Allocator (904Expense)	Account 904 - Uncollectible expense	Allocator based on actual test year bad debt data for residential class, and by allocating the commercial bad debts on the basis of commercial revenues.	Directly assigned to residential class, and commercial assignment generally follows commercial revenues.
Meter Investment Large Customers (MIL)	Account 385 - Commercial & Industrial Measuring and Regulating Equipment	Allocator is based on the meters investments for LGS, and IN customer classes.	Plant investment and costs related to service for large and interruptible customers.
	Account 890 – Measuring and Regulating Station Equipment - Industrial		This is consistent with the approach taken in the prior cost of service study.
Annual Volume (AV)	Account 871 – Load Dispatching & Odorization	Allocator is based on percentage of sales volumes within each rate class.	Costs are based on throughput. This is consistent with the approach taken in the prior cost of service study.
Peak Sales Factor (excluding Transportation) (P(S))	Production Plant Gas Production Expenses	Allocator is based on the peak month sale volumes for each customer class.	Costs based on peak month sales. This is generally consistent with the approach taken in the prior cost of service study.
Peak Factor for Large Customers (P(L))	Account 876 – Measuring and Regulating Station Expenses – Industrial	Allocator is based on the peak month sales volumes for LGS and IN customer classes.	Costs based on peak month sales of large customers. This is generally consistent with the approach taken in the prior cost of service study.
Peak and Average Winter Sales (P&A W)	Storage Gas	Allocator is based on the average of peak month sales, and winter sales for each customer class. Winter is defined as November to April.	Storage Gas is generally required for winter and peak month sales. This is generally consistent with the approach taken in the prior cost of service study.

Allocator	Allocation of:	Allocator Derivation	Rationale
Peak and Average Allocator (P&A)	All Transmission Plant accounts Distribution Plant Accounts 376 to 379 Transmission-related expenses Account 872 – Compressor Station Labor & Expense Account 875 - Measuring and Regulating Station Expenses – General Account 877 - Measuring and Regulating Station Expenses – City Gate	Allocator is based on class contribution to average daily use and design day use.	Costs related to providing design day and average day service. This is consistent with the approach taken in the prior cost of service study.
Cash Working Capital Allocator (CWC)	Cash Working Capital	Allocator is based on an average of multiple allocators including sales volume allocator, Non-A&G expense allocator, Other Taxes allocator, and Gross Plant Allocator.	Cash Working Capital consists of gas supply expenses, O&M expenses, taxes, and plant accounts. This is generally consistent with the approach taken in the prior cost of service study.

Summary of Allocators

Allocator	Allocator for:	Allocator Derivation	Rationale
Transmission & Distribution Plant (T&D)	All General Plant Accounts Accumulated Deferred Income Taxes Rate Base Offset	Allocator is based on transmission and distribution plant.	Costs are generally related to T&D plant costs. This is consistent with the approach taken in the prior cost of service study.
Distribution Plant (excl. Accounts 374, 375, 387) (DP)	Accounts 374 and 375 - Land and Land Rights, Structures and Improvements Distribution Maintenance Expenses (Accounts 885-888, 891, 894, 895)	Allocator based on distribution plant, excluding accounts 374, 375, and 387.	Costs are generally related to distribution plant. This is consistent with the approach taken in the prior cost of service study.
Mains and Services (MS)	Customer Advances Account 874 - Mains and Service Expenses	Allocator is based on Account 376 Mains and Account 380 Services.	Costs are generally related to Mains and Service plant. This is consistent with the approach taken in the prior cost of service study.
Rate Base (RB)	Interest Expense	Allocator is based on total rate base allocation.	Interest Expense costs are generally related to Rate Base
Total Plant (Plant_Total)	Ad Valorem Tax	Allocator is based on total plant allocation.	Costs are generally related to total plant.
Accounts 871-879 Expenses (OPER)	Account 870 – Supervision & Engineering Account 880 – Other Expenses Account 881 – Rents	Allocator is based on major distribution operations expenses.	Costs are generally related to distribution plant operations. This is consistent with the approach taken in the prior cost of service study.

Allocator	Allocator for:	Allocator Derivation	Rationale
Accounts 902-904 Expenses (EXP_902-904)	Account 905 - Miscellaneous Customer Service	Allocator based on distribution expenses, FERC accounts 902-904.	Costs are generally related to customer service accounts.
Non-A&G O&M Expenses (OM(F))	All A&G Expenses Prepaid Expenses Regulatory Asset – Energy Efficiency Other Regulatory Assets	Allocator based on total operation and maintenance expenses excluding administrative and general expenses.	Costs generally support operations and maintenance. This is consistent with the approach taken in the prior cost of service study.
Other Taxes Allocator (OT)	Other Taxes	Composite allocator based 75 percent on the allocation of Gross Plant and 25 percent on allocation of Non-A&G O&M Expenses.	Costs generally consistent with Gross Plant and O&M. This is consistent with the approach taken in the prior cost of service study.

Liberty Utilities (NEMO)	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible
COSS Summary	Company	RS	SGS	MGS	LGS	interruptible IN
Commant Dalicems Semiles Dates						
Current Delivery Service Rates Rate base	41,662,885	24,932,760	5,707,896	6,812,162	3,306,558	903,509
Net operating income	1,821,074	1,036,464	38,338	470,129	236,081	40,062
Rate of return	4.37%	4.16%	0.67%	6.90%	7.14%	4.43
Relative rate of return	100%	95%	15%	158%	163%	1019
Revenues	\$ 11,043,348	\$ 7,405,217	\$ 1,037,243	\$ 1,613,736	\$ 811,828	\$ 175,322
Test Period Usage (CCF)	24,336,983	11,243,129	3,270,045	4,440,882	4,328,322	1,054,605
Revenue per CCF	\$ 0.4538	\$ 0.6586	\$ 0.3172	\$ 0.3634	\$ 0.1876	\$ 0.1662
Revenues at Equalized Rates of Return						
Rate of return	 7.640%	7.640%	7.640%	7.640%	7.640%	7.640
Return requirement	3,183,044	1,904,863	436,083	520,449	252,621	69,028
Revenue required	13,253,929	8,814,694	1,682,814	1,695,410	838,673	222,337
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Revenue Required per CCF	\$ 0.5446	\$ 0.7840	\$ 0.5146	\$ 0.3818	\$ 0.1938	\$ 0.2108
Revenue Deficiency per CCF	\$ 0.0908	\$ 0.1254	\$ 0.1974	\$ 0.0184	\$ 0.0062	\$ 0.0446

	Revenue Requirements						
Rate Class	Class ROR	Overall ROR					
Danislaustial	4.150/	4 270/					
Residential	4.16%	4.37%					
Small GS	0.67%	4.37%					
Medium GS	6.90%	4.37%					
Large GS	7.14%	4.37%					
Interruptible	4.43%	4.37%					

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

TAB NAME: COSS Summary

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Liberty Utilities (NEMO) COSS Summary	Total	Residential		Small General Srv	Medium General Srv	Large General Srv		- Interruptible
COSS Summary	Company	RS		SGS	MGS	LGS		interruptible
Current Rate of Return	4.37%	4.16%		0.67%	6.90%	7.14%		4.43%
Proposed Rate of Return	7.64%	7.64%		7.64%	7.64%	7.64%		7.64%
EROR Revenues	\$ 13,253,928	\$ 8,814,694	\$	1,682,814	\$ 1,695,410	\$ 838,673	\$	222,337
Current Revenues	 11,043,348	 7,405,217	-	1,037,243	 1,613,736	 811,828	-	175,322
Difference	\$ 2,210,580	\$ 1,409,477	\$	645,571	\$ 81,674	\$ 26,845	\$	47,015
% Difference	20.02%	19.03%		62.24%	5.06%	3.31%		26.82%
Derivation of Delivery Revenues								
Current Total Revenues	\$ 11,043,348	7,405,217		1,037,243	1,613,736	811,828		175,322
Less: ISRS Reconciliation	24,993	18,447		1,866	2,904	1,461		315
Less: Special Contract	154,321	103,458		14,501	22,561	11,350		2,451
Less: Misc Other Revenues (Acct 488, 493)	 169,826	 113,853		15,958	 24,828	 12,490		2,697
Current Delivery Revenues	\$ 10,694,207	\$ 7,169,460	\$	1,004,917	\$ 1,563,444	\$ 786,527	\$	169,858
Total Revenues at EROR	\$ 13,253,928	8,814,694		1,682,814	1,695,410	838,673		222,337
Less: ISRS Reconciliation	24,993	18,447		1,866	2,904	1,461		315
Less: Special Contract	154,321	103,458		14,501	22,561	11,350		2,451
Less: Misc Other Revenues (Acct 488, 493)	 169,826	 113,853		15,958	 24,828	 12,490		2,697
Delivery Revenues at EROR	\$ 12,904,787	\$ 8,578,937	\$	1,650,488	\$ 1,645,118	\$ 813,372	\$	216,873
Metrics								
Delivery Revenues at EROR	12,904,787	8,578,937		1,650,488	1,645,118	813,372		216,873
Test Period Usage (CCF)	24,336,983	11,243,129		3,270,045	4,440,882	4,328,322		1,054,605
Test Period Customers	18,195	15,729		2,113	332	18		2
Revenue requirement per CCF		\$ 0.76	\$	0.50	\$ 0.37	\$ 0.19	\$	0.21
Revenue requirement per Customer		\$ 545	\$	781	\$ 4,949	\$ 45,610	\$	108,437

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: COSS Summary

Company R5 SG\$ MG\$ L6\$	erty Utilities (NEMO)			Small	Medium	Large	-
Commodity Comm	evelopment of Rate of Return	Total	Residential	General Srv	General Srv	General Srv	Interruptible
		Company	RS	SGS	MGS	LGS	IN
Sas Plant in Service	ata Raca						
Demand							
- Customer		21.207.333	11.069.792	3.124.848	3.581.078	2.706.056	725,558
Commodity Comm							797,386
Total	- Commodity	· · ·					-
- Demand	•	69,963,238	42,024,794	9,575,500	10,992,923	5,847,077	1,522,944
Customer (13,044,319) (8,374,970) (1,757,295) (1,795,743) (887,881) Commodity Commodit	ss: Depreciation & Amortization						
Customer (13,044,319) (8,374,970) (1,757,295) (1,795,743) (887,881) Commodity Commodit	- Demand	(7,883,672)	(4,115,023)	(1,161,601)	(1,331,255)	(1,006,072)	(269,721)
Commodity Comm	- Customer	* * * *	* * * * *				(228,430)
Net Utility Plant in Service 1,323,661	- Commodity	-	-	-			-
Demand	otal	(20,927,991)	(12,489,993)	(2,918,896)	(3,126,997)	(1,893,953)	(498,151)
Customer	et Utility Plant in Service						
Commodity	- Demand	13,323,661	6,954,769	1,963,247	2,249,823	1,699,984	455,837
Additions to Rate Base S,8803 34,843 8,212 8,985 5,058 5,058 5,058 6,056 6,055 7,011 11,837 6,056 197,214 32,661 27,411 11,837 6,085 7,090 7,000 <th< td=""><td>- Customer</td><td>35,711,585</td><td>22,580,031</td><td>4,693,356</td><td>5,616,102</td><td>2,253,140</td><td>568,956</td></th<>	- Customer	35,711,585	22,580,031	4,693,356	5,616,102	2,253,140	568,956
Additions to Rate Base	- Commodity		-	-	-	-	-
Demand 58,803 34,843 8,212 8,985 5,058 - Customer 273,405 197,214 32,661 27,411 11,837 - Commodity 1,583,460 936,243 269,136 255,448 60,895 - Total 1,915,669 1,168,299 310,009 291,844 77,790 - Reductions to Rate Base	otal	49,035,246	29,534,801	6,656,604	7,865,925	3,953,124	1,024,793
Customer - Customer - Commodity 273,405 197,214 32,661 27,411 11,837 Total 1,583,460 936,243 269,136 255,448 60,895 Total 1,915,669 1,168,299 310,009 291,844 77,790 Reductions to Rate Base - Demand (2,646,204) (1,381,264) (389,912) (446,839) (337,656) - Customer (6,641,826) (4,389,076) (868,805) (898,768) (386,700) - Commodity - T<	dditions to Rate Base						
1,583,460 936,243 269,136 255,448 60,895 Total 1,915,669 1,168,299 310,009 291,844 77,790 Reductions to Rate Base	- Demand	58,803	34,843	8,212	8,985	5,058	1,705
Total 1,915,669 1,168,299 310,009 291,844 77,790 Reductions to Rate Base - Demand (2,646,204) (1,381,264) (389,912) (446,839) (337,656) - Customer (6,641,826) (4,389,076) (868,805) (898,768) (386,700) - Commodity - - - - Total (9,288,030) (5,770,340) (1,258,717) (1,345,607) (724,355) Rate Base - Demand 10,736,260 5,608,348 1,581,548 1,811,969 1,367,387 - Customer 29,343,165 18,388,169 3,857,212 4,744,745 1,878,277 - Commodity 1,583,460 936,243 269,136 255,448 60,895	- Customer	273,405	197,214	32,661	27,411	11,837	4,283
Reductions to Rate Base - Demand (2,646,204) (1,381,264) (389,912) (446,839) (337,656) - Customer (6,641,826) (4,389,076) (868,805) (898,768) (386,700) - Commodity - - - - - - Total (9,288,030) (5,770,340) (1,258,717) (1,345,607) (724,355) Rate Base - Demand 10,736,260 5,608,348 1,581,548 1,811,969 1,367,387 - Customer 29,343,165 18,388,169 3,857,212 4,744,745 1,878,277 - Commodity 1,583,460 936,243 269,136 255,448 60,895	- Commodity	1,583,460	936,243	269,136	255,448	60,895	61,739
- Demand (2,646,204) (1,381,264) (389,912) (446,839) (337,656) (2,646,204) (1,381,264) (389,912) (446,839) (337,656) (386,700)	otal	1,915,669	1,168,299	310,009	291,844	77,790	67,727
- Customer (6,641,826) (4,389,076) (868,805) (898,768) (386,700) (eductions to Rate Base						
- Commodity - Commodity - Commodity - Commodity - Commodity - Commodity - Customer - Customer - Commodity	- Demand	(2,646,204)	(1,381,264)	(389,912)	(446,839)	(337,656)	(90,534)
Total (9,288,030) (5,770,340) (1,258,717) (1,345,607) (724,355) Rate Base - Demand 10,736,260 5,608,348 1,581,548 1,811,969 1,367,387 - Customer 29,343,165 18,388,169 3,857,212 4,744,745 1,878,277 - Commodity 1,583,460 936,243 269,136 255,448 60,895	- Customer	(6,641,826)	(4,389,076)	(868,805)	(898,768)	(386,700)	(98,477)
Rate Base - Demand 10,736,260 5,608,348 1,581,548 1,811,969 1,367,387 - Customer 29,343,165 18,388,169 3,857,212 4,744,745 1,878,277 - Commodity 1,583,460 936,243 269,136 255,448 60,895	- Commodity	-	-	-	-	-	-
- Demand 10,736,260 5,608,348 1,581,548 1,811,969 1,367,387 - Customer 29,343,165 18,388,169 3,857,212 4,744,745 1,878,277 - Commodity 1,583,460 936,243 269,136 255,448 60,895	otal	(9,288,030)	(5,770,340)	(1,258,717)	(1,345,607)	(724,355)	(189,010)
- Customer 29,343,165 18,388,169 3,857,212 4,744,745 1,878,277 - Commodity 1,583,460 936,243 269,136 255,448 60,895	ate Base						
- Commodity 1,583,460 936,243 269,136 255,448 60,895	- Demand	10,736,260	5,608,348	1,581,548	1,811,969	1,367,387	367,008
	- Customer	29,343,165	18,388,169	3,857,212	4,744,745	1,878,277	474,762
Total 41 662 885 24 922 760 5 707 896 6 812 162 2 206 559	- Commodity	1,583,460	936,243	269,136	255,448	60,895	61,739
+1,002,000 24,532,700 3,707,050 0,012,102 5,300,336	otal	41,662,885	24,932,760	5,707,896	6,812,162	3,306,558	903,509

Cost of Service Study 12 Months Ending June 30, 2017

<u>Liberty Utilities (NEMO)</u>			Small	Medium	Large	-
Development of Rate of Return	Total	Residential	General Srv	General Srv	General Srv	Interruptible
	Company	RS	SGS	MGS	LGS	IN
Return Calculation						
Customer sales	10,694,207	7,169,460	1,004,917	1,563,444	786,527	169,858
Add: ISRS Reconciliation	24,993	18,447	1,866	2,904	1,461	315
Add: Special Contract	154,321	103,458	14,501	22,561	11,350	2,451
Add: Misc Other Revenues (Acct 488, 493)	169,826	113,853	15,958	24,828	12,490	2,697
Total	11,043,348	7,405,217	1,037,243	1,613,736	811,828	175,322
less: O&M Expense						
- Demand	556,946	290,714	82,065	94,046	71,066	19,055
- Customer	3,997,129	3,207,444	420,390	244,944	99,133	25,218
- Commodity	45,929	21,218	6,171	8,381	8,168	1,990
Total	4,600,004	3,519,377	508,625	347,371	178,368	46,263
Depreciation and Amortization Expense						
- Demand	814,507	425,156	120,016	137,538	103,931	27,866
- Customer	2,384,569	1,592,704	308,041	329,945	123,166	30,713
- Commodity	178	82	24	32	32	. 8
Total	3,199,253	2,017,942	428,080	467,515	227,129	58,587
Taxes other than income						
- Demand	248,498	129,711	36,616	41,962	31,708	8,502
- Customer	581,657	371,729	76,582	87,022	36,942	9,381
- Commodity	192	89	26	35	34	8
Taxes other than income	830,347	501,529	113,224	129,018	68,685	17,891
Interest on customer deposits	31,699	27,433	3,686	580	-	-
Income taxes	560,971	302,473	(54,710)	199,123	101,565	12,520
Total Operating Expenses	9,222,273	6,368,753	998,905	1,143,607	575,747	135,261
Net Operating Income	1,821,074	1,036,464	38,338	470,129	236,081	40,062
After Tax Rate of return	4.37%	4.16%	0.67%	6.90%	7.14%	4.43%
Relative rate of return	1.000	0.951	0.154	1.579	1.633	1.014

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Rate of Return

Liberty Utilities (NEMO)			Small	Medium	Large	-
Summary of Rate of Return	Total	Residential	General Srv	General Srv	General Srv	Interruptible
	Company	RS	SGS	MGS	LGS	· IN
Rate Base						
Gas Plant in Service	69,963,238	42,024,794	9,575,500	10,992,923	5,847,077	1,522,944
less: Depreciation	(20,927,991)	(12,489,993)	(2,918,896)	(3,126,997)	(1,893,953)	(498,151)
Net Utility Plant in Service	49,035,246	29,534,801	6,656,604	7,865,925	3,953,124	1,024,793
Add:						
Storage Gas	1,525,253	899,880	261,243	246,981	56,967	60,183
Prepaid Expenses	98,002	74,979	10,836	7,401	3,800	986
Cash Working Capital	223,368	140,615	30,295	32,249	14,345	5,864
Regulatory Asset - Energy Efficiency	69,045	52,825	7,634	5,214	2,677	694
Total	1,915,669	1,168,299	310,009	291,844	77,790	67,727
Less:						
Accumulated Deferred Income Taxes	(5,911,981)	(3,554,449)	(810,532)	(917,919)	(498,900)	(130,181)
Rate Base Offset	(2,671,353)	(1,606,093)	(366,242)	(414,765)	(225,430)	(58,823)
Customer Deposits	(704,413)	(609,625)	(81,905)	(12,884)	-	
Customer Advances	(284)	(173)	(39)	(39)	(26)	(7)
Total	(9,288,030)	(5,770,340)	(1,258,717)	(1,345,607)	(724,355)	(189,010)
Rate Base	41,662,885	24,932,760	5,707,896	6,812,162	3,306,558	903,509
Return Calculation						
Delivery Revenues	10,694,207	7,169,460	1,004,917	1,563,444	786,527	169,858
Add: ISRS Reconciliation	24,993	18,447	1,866	2,904	1,461	315
Add: Special Contract	154,321	103,458	14,501	22,561	11,350	2,451
Add: Misc Other Revenues (Acct 488, 493)	169,826	113,853	15,958	24,828	12,490	2,697
Total Revenues	11,043,348	7,405,217	1,037,243	1,613,736	811,828	175,322
less:						
O&M Expense	4,600,004	3,519,377	508,625	347,371	178,368	46,263
Depreciation Expense	3,199,253	2,017,942	428,080	467,515	227,129	58,587
Taxes other than income	830,347	501,529	113,224	129,018	68,685	17,891
Interest on customer deposits Income taxes	31,699	27,433	3,686	580 199,123	- 101,565	- 12 E20
Total Operating Expenses	<u>560,971</u> 	302,473 6,368,753	(54,710) 998,905	1,143,607	575,747	12,520 135,261
Net Operating Income	1,821,074	1,036,464	38,338	470,129	236,081	40,062
Rate of return	4.371%	4.157%	0.672%	6.901%	7.140%	4.434%
Relative rate of return	1.000	0.951	0.154	1.579	1.633	1.014

TAB NAME: Summary Rate of Return

<u>Liberty Utilities (NEMO)</u> Summary of Rate of Return	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN
Derivation of Required Revenues						
Net Income after taxes	\$ 3,183,044	\$ 1,904,863	\$ 436,083	\$ 520,449	\$ 252,621	\$ 69,028
Add: Income Taxes	 1,409,582	 843,551	 193,116	230,476	 111,871	30,568
Net income before taxes & interest	\$ 4,592,627	\$ 2,748,414	\$ 629,199	\$ 750,925	\$ 364,492	\$ 99,597
Add: O&M	4,600,004	3,519,377	508,625	347,371	178,368	46,263
Add: Depreciation	3,199,253	2,017,942	428,080	467,515	227,129	58,587
Add: Taxes other than income	830,347	501,529	113,224	129,018	68,685	17,891
Add: Interest on customer deposits	 31,699	 27,433	 3,686	 580	 -	 -
Net Revenue Requirement	13,253,929	8,814,694	1,682,814	1,695,410	838,673	222,337
Total Revenue Requirement	\$ 13,253,929	\$ 8,814,694	\$ 1,682,814	\$ 1,695,410	\$ 838,673	\$ 222,337
Demand-Related						
Rate Base	\$ 10,736,260	\$ 5,608,348	\$ 1,581,548	\$ 1,811,969	\$ 1,367,387	\$ 367,008
Net Income after taxes	820,250	428,478	120,830	138,434	104,468	28,039
Add: Income Taxes	 363,240	 189,748	 53,509	 61,304	 46,263	 12,417
Net income before taxes & interest	\$ 1,183,491	\$ 618,225	\$ 174,339	\$ 199,739	\$ 150,731	\$ 40,456
Add: O&M	556,946	290,714	82,065	94,046	71,066	19,055
Add: Depreciation	814,507	425,156	120,016	137,538	103,931	27,866
Add: Taxes other than income	248,498	129,711	36,616	41,962	31,708	8,502
Required Demand Revenues	\$ 2,803,442	\$ 1,463,806	\$ 413,035	\$ 473,284	\$ 357,437	\$ 95,879

<u>Liberty Utilities (NEMO)</u>			Small	Medium	Large	
Summary of Rate of Return	Total	Residential	General Srv	General Srv	General Srv	Interruptible
	Company	RS	SGS	MGS	LGS	IN
Fully Allocated Customer Costs						
Rate Base	\$ 29,343,165	\$ 18,388,169	\$ 3,857,212	\$ 4,744,745	\$ 1,878,277	\$ 474,762
Net Income after taxes	2,241,818	1,404,856	294,691	362,499	143,500	36,272
Add: Income Taxes	 992,769	622,128	130,501	160,529	63,548	16,063
Net income before taxes & interest	\$ 3,234,586	\$ 2,026,984	\$ 425,192	\$ 523,028	\$ 207,048	\$ 52,334
Add: O&M	3,997,129	3,207,444	420,390	244,944	99,133	25,218
Add: Depreciation	2,384,569	1,592,704	308,041	329,945	123,166	30,713
Add: Taxes other than income	581,657	371,729	76,582	87,022	36,942	9,381
Add: Interest on deposits	 31,699	27,433	3,686	580	-	-
Required Customer Revenues	\$ 10,229,639	\$ 7,226,294	\$ 1,233,891	\$ 1,185,518	\$ 466,290	\$ 117,646
Number of Customers	 18,195	15,729	2,113	332	 18	 2
Monthly cost per customer	\$ 46.85	\$ 38.29	\$ 48.66	\$ 297.20	\$ 2,178.92	\$ 4,901.92
Required Total Revenues	13,033,081	8,690,101	1,646,925	1,658,803	823,727	213,525

<u>Liberty Utilities (NEMO)</u>			Small	Medium	Large	-
Summary of Rate of Return	Total	Residential	General Srv	General Srv	General Srv	Interruptible
	Company	RS	SGS	MGS	LGS	IN
Basic Customer Costs						
Plant						
376.0 Mains - Cathodic Protection	531,892	277,637	78,373	89,816	67,869	18,197
376.1 Mains - Steel	5,444,585	2,841,962	802,246	919,375	694,729	186,273
376.2 Mains - Plastic	10,971,468	5,726,881	1,616,619	1,852,646	1,399,960	375,363
380.0 Services	14,234,414	11,446,610	1,647,782	1,010,108	110,723	19,190
381.0 Meters	4,151,199	2,473,365	506,594	1,024,041	124,304	22,894
382.0 Meter Installations	3,205,719	1,910,030	391,212	790,805	95,993	17,680
383.0 House Regulators	701,456	351,856	157,002	168,285	20,164	4,149
384.0 House Regulators Installations	93,833	47,068	21,002	22,511	2,697	555
385.0 Ind. Meas. & Reg. Sta. Equip	58,234	-	-	· <u>-</u>	49,177	9,057
Total	39,392,802	25,075,408	5,220,831	5,877,588	2,565,616	653,359
Accumulated Depreciation						
376.0 Mains - Cathodic Protection	(141,516)	(73,868)	(20,852)	(23,896)	(18,057)	(4,842
376.1 Mains - Steel	(2,173,232)	(1,134,382)	(320,220)	(366,973)	(277,304)	(74,352
376.2 Mains - Plastic	(2,604,890)	(1,359,699)	(383,824)	(439,863)	(332,384)	(89,120
380.0 Services	(4,378,817)	(3,521,227)	(506,894)	(310,731)	(34,061)	(5,903
381.0 Meters	(132,589)	(78,999)	(16,181)	(32,708)	(3,970)	(731
382.0 Meter Installations	(419,219)	(249,779)	(51,160)	(103,415)	(12,553)	(2,312
383.0 House Regulators	(375,490)	(188,349)	(84,043)	(90,083)	(10,794)	(2,221
384.0 House Regulators Installations	(49,061)	(24,609)	(10,981)	(11,770)	(1,410)	(290
385.0 Ind. Meas. & Reg. Sta. Equip	(24,538)	-	-	-	(20,722)	(3,816
Total	(10,299,351)	(6,630,913)	(1,394,155)	(1,379,440)	(711,256)	(183,588
Net income before taxes & interest						
Net Plant	29,093,451	18,444,495	3,826,676	4,498,148	1,854,361	469,771
Net Income after taxes	2,222,740 \$	1,409,159 \$	292,358 \$	343,658 \$	141,673 \$	35,891
Add: Income Taxes	984,320	624,033	129,468	152,186	62,739	15,894
Net income before taxes & interest	\$ 3,207,060 \$	2,033,193 \$	421,826 \$	495,845 \$	204,412 \$	51,784

Liberty Utilities (NEMO)				Small	Medium	Large	-
Summary of Rate of Return	Total	Resid	lential	General Srv	General Srv	General Srv	Interruptible
	Company		RS	SGS	MGS	LGS	II
Basic Customer Costs (Continued)							
O&M Expenses							
874 Mains & Service Expenses	442,295	2	37,840	58,794	54,920	32,245	8,49
876 Meas. & Reg. Sta. Expenses - Industrial	-		-	-	-	-	-
878 Meter & House Reg. Expenses	86,714	. !	3,316	11,362	19,289	2,317	430
879 Customer Installations Expenses	-		-	-	-	-	-
880 Other Expenses	-		-	-	-	-	-
902 Meter Reading Expenses	70,943		51,113	8,416	1,344	61	8
903 Customer Records & Collection Expenses	637,940	5.	53,948	71,759	11,451	694	87
909 Informational and Instructional Advertising Expenses	11,332		9,796	1,316	207	11	3
913 Advertising	2,156		1,864	250	39	2	(
916 Miscellaneous Sales Expense				-			
Total	1,251,380	9	57,878	151,897	87,251	35,331	9,024
Depreciation Expense							
376.0 Mains - Cathodic Protection	531,892		4,268	1,205	1,381	1,043	280
376.1 Mains - Steel	5,444,585		13,121	12,173	13,950	10,541	2,826
376.2 Mains - Plastic	10,971,468	:	36,889	24,528	28,109	21,240	5,695
380.0 Services	14,234,414	5	53,040	81,052	49,686	5,446	944
381.0 Meters	4,151,199		10,606	8,317	16,812	2,041	37
382.0 Meter Installations	3,205,719		56,160	11,503	23,252	2,822	520
383.0 House Regulators	701,456	:	14,938	6,665	7,144	856	170
384.0 House Regulators Installations	93,833		1,567	699	750	90	18
385.0 Ind. Meas. & Reg. Sta. Equip	58,234		-	-	-	1,770	32
Total	39,392,802	8	10,589	146,141	141,082	45,851	11,163
Basic customer-related costs	5,613,264	\$ 3,8	11,660 \$	719,864	\$ 724,178	\$ 285,593	\$ 71,96
Number of customers	18,195	. <u> </u>	15,729	2,113	332	18	:
Monthly basic cost per customer	\$ 25.71	\$	20.19 \$	28.39	\$ 181.54	\$ 1,334.55	\$ 2,998.72

<u>Liberty Utilities (NEMO)</u> Allocation of Gross Plant	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
Intangible Plant								
301.0 Organization		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
302.0 Franchises & Consents		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
303.0 Misc. Intangible Plant		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Total Intangible Plant		-						
- Demand	_	-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-		
Total		-	-	-	-	-	-	
Production Plant								
311.0 Liquified Petroleum Gas Equipment	_	_						DEM
- Demand	P(S)	<u> </u>					-	
- Customer	P(3)	-	-	-	-	-		100% 0%
- Commodity		_	_	_	_	_	_	0%
Total		-	-	-	-	-	-	370
Total Production Plant		_						
- Demand	-		_	_	_	_	_	
- Customer		_	-	-	-	_	-	
- Commodity		-	-	-	-	-	-	
Total	_	_	-	-	-	_		

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large	-	
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Transmission Plant								
Transmission Plant								
365.0 Land and Land Rights - TP		200						DEM
- Demand	P&A	200	104	29	34	26	7	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		200	104	29	34	26	7	
365.1 Rights-Of-Way		8,742					Г	DEM
- Demand	P&A	8,742	4,563	1,288	1,476	1,116	299	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		8,742	4,563	1,288	1,476	1,116	299	
365.2 Rights-of-way - TP		-					-	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		_	-	-	-	-	_	0%
- Commodity		-	-	-	-	-	-	0%
Total	1	-	-	-	-	-	-	
366.0 Structures & Improvements		_						DEM
- Demand	P&A		_	_	_	_	_	100%
- Customer		_	_	_	_	-	_	0%
- Commodity		-	-	-	-	-	-	0%
Total	1	-	-	-	-	-	-	
366.1 Underground Conduit		26,187					П	DEM
- Demand	P&A	26,187	13,669	3,859	4,422	3,341	896	100%
- Customer	T WY	-	-	-	-,	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		26,187	13,669	3,859	4,422	3,341	896	
367.0 Mains - Cathodic Protection		21,151					Г	DEM
- Demand	P&A	21,151	11,040	3,116	3,571	2,699	724	100%
- Customer	ran	21,131	-	-	3,371	2,099	- 124	0%
- Commodity		- -	-	- -	- -	-	_	0%
Total		21,151	11,040	3,116	3,571	2,699	724	070

Liberty Utilities (NEMO)				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
367.1 Mains - Steel		1,192,009						DEM
- Demand	P&A	1,192,009	622,204	175,640	201,283	152,100	40,782	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total	· · · · · · · · · · · · · · · · · · ·	1,192,009	622,204	175,640	201,283	152,100	40,782	
367.2 Mains - Plastic		-					ſ	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total	·	-	-	-	-	-	-	
369.0 Meas. & Reg. Sta. Equipment		84,018						DEM
- Demand	P&A	84,018	43,856	12,380	14,187	10,721	2,874	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		84,018	43,856	12,380	14,187	10,721	2,874	
370.0 Communication Equipment		-					ſ	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Total Transmission Plant		1,332,307						
- Demand	_	1,332,307	695,437	196,312	224,974	170,002	45,582	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Total		1,332,307	695,437	196,312	224,974	170,002	45,582	

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Distribution Plant							_	
374.0 Land & Land Rights		105,963						DP
- Demand	DP_D	30,920	16,140	4,556	5,221	3,945	1,058	29%
- Customer	DP_C	75,042	47,768	9,946	11,197	4,887	1,245	71%
- Commodity		-	-	-	-	-	-	0%
Total		105,963	63,908	14,502	16,418	8,833	2,303	
374.1 T&D Land		700						DP
- Demand	DP_D	204	107	30	34	26	7	29%
- Customer	DP_C	495	315	66	74	32	8	71%
- Commodity		-	-	-	-	-	-	0%
Total		700	422	96	108	58	15	
374.2 Land Rights		100,326						DP
- Demand	DP_D	29,276	15,281	4,314	4,943	3,736	1,002	29%
- Customer	DP_C	71,050	45,227	9,417	10,601	4,627	1,178	71%
- Commodity		-	-	-	-	-	-	0%
Total		100,326	60,508	13,730	15,545	8,363	2,180	
375.0 Structures & Improvements		80,728						DP
- Demand	DP_D	23,557	12,296	3,471	3,978	3,006	806	29%
- Customer	DP_C	57,171	36,392	7,577	8,530	3,724	948	71%
- Commodity	55	-	-	-	-	-	-	0%
Total		80,728	48,688	11,048	12,508	6,729	1,754	0,0
376.0 Mains - Cathodic Protection		978,244						DISMAIN
- Demand	P&A	446,352	232,986	65,769	75,371	56,954	15,271	46%
- Customer	P&A	531,892	277,637	78,373	89,816	67,869	18,197	54%
- Commodity	FXA	331,632	277,037	76,373	-	-	18,197	0%
Total		978,244	510,623	144,142	165,187	124,824	33,468	070
376.1 Mains - Steel		10,013,554						DISMAIN
- Demand	P&A	4,568,968	2,384,908	673,226	771,518	583,001	156,316	46%
- Demand - Customer	P&A				•	•	-	
	PAA	5,444,585	2,841,962	802,246 -	919,375 -	694,729 -	186,273	54% 0%
- Commodity Total		10,013,554	5,226,869	1,475,473	1,690,892	1,277,730	342,590	U70

<u>Liberty Utilities (NEMO)</u> Allocation of Gross Plant	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
376.2 Mains - Plastic		20,178,466						DISMAIN
- Demand	P&A	9,206,998	4,805,864	1,356,629	1,554,697	1,174,813	314,995	46%
- Customer	P&A	10,971,468	5,726,881	1,616,619	1,852,646	1,399,960	375,363	54%
- Commodity		-	-	-	-	-	-	0%
Total		20,178,466	10,532,745	2,973,247	3,407,343	2,574,773	690,358	
377.0 Compressor Station Equipment - DP		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
378.0 Meas. & Reg. Sta. Eq-General		1,235,819						DEM
- Demand	P&A	1,235,819	645,072	182,095	208,681	157,690	42,281	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Гotal		1,235,819	645,072	182,095	208,681	157,690	42,281	
379.0 Meas. & Reg City Gate		773,243						DEM
- Demand	P&A	773,243	403,617	113,936	130,570	98,666	26,455	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		773,243	403,617	113,936	130,570	98,666	26,455	
380.0 Services		14,234,414						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	SV	14,234,414	11,446,610	1,647,782	1,010,108	110,723	19,190	100%
- Commodity		-	-	-	-	-	-	0%
Total		14,234,414	11,446,610	1,647,782	1,010,108	110,723	19.190	

<u>iberty Utilities (NEMO)</u> Allocation of Gross Plant	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
381.0 Meters		4,151,199						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MI	4,151,199	2,473,365	506,594	1,024,041	124,304	22,894	100%
- Commodity		-	-	-	-	-	-	0%
Гotal		4,151,199	2,473,365	506,594	1,024,041	124,304	22,894	
882.0 Meter Installations		3,205,719						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MI	3,205,719	1,910,030	391,212	790,805	95,993	17,680	100%
- Commodity		-	-	-	-	-	-	0%
otal		3,205,719	1,910,030	391,212	790,805	95,993	17,680	
83.0 House Regulators		701,456						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	R	701,456	351,856	157,002	168,285	20,164	4,149	100%
- Commodity		-	-	-	-	-	-	0%
otal		701,456	351,856	157,002	168,285	20,164	4,149	
84.0 House Regulators Installations		93,833						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	R	93,833	47,068	21,002	22,511	2,697	555	100%
- Commodity		-	-	-	-	-	-	0%
otal		93,833	47,068	21,002	22,511	2,697	555	
85.0 Ind. Meas. & Reg. Sta. Equip		58,234						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MIL	58,234	-	-	-	49,177	9,057	100%
- Commodity		-	-	-	-	-	-	0%
otal		58,234	-	-	-	49,177	9,057	
87.0 Other Equipment - DP		5,947						DP
- Demand	DP_D	1,735	906	256	293	221	59	29%
- Customer	DP_C	4,212	2,681	558	628	274	70	71%
- Commodity		-	-		-			0%
otal		5,947	3,587	814	921	496	129	
otal Distribution Plant		55,917,845						
- Demand		16,317,073	8,517,177	2,404,281	2,755,307	2,082,059	558,250	
- Customer		39,600,773	25,207,792	5,248,394	5,908,618	2,579,161	656,808	
- Commodity		-	-	-	-	-	-	
otal	-	55,917,845	33,724,969	7,652,674	8,663,925	4,661,220	1,215,058	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Alloc Plant

T&D

31%

69%

0%

5,775

6,282

12,058

Liberty Utilities (NEMO Region) Cost of Service Study 12 Months Ending June 30, 2017

iberty Utilities (NEMO)				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
General Plant							_	
389.0 Land & Land Rights	<u></u>	30,364						T&D
- Demand	T&D_D	9,361	4,886	1,379	1,581	1,194	320	31%
- Customer	T&D_C	21,003	13,369	2,784	3,134	1,368	348	69%
- Commodity		-	-	-	-	-	-	0%
Гotal		30,364	18,256	4,163	4,714	2,562	669	
390.0 Structures & Improvements		2,429,408					Г	T&D
- Demand	T&D_D	748,951	390,937	110,356	126,468	95,566	25,624	31%
- Customer	T&D_C	1,680,457	1,069,692	222,715	250,732	109,447	27,872	69%
- Commodity		-	-	-	-	-	-	0%
Total		2,429,408	1,460,629	333,071	377,200	205,013	53,495	
390.1 Structures - Frame		21,504					Г	T&D
- Demand	T&D_D	6,629	3,460	977	1,119	846	227	31%
- Customer	T&D_C	14,875	9,468	1,971	2,219	969	247	69%
- Commodity		-	-	-	-	-	-	0%
Total		21,504	12,929	2,948	3,339	1,815	474	
390.2 General - Improvements		8,335					Г	T&D
- Demand	T&D_D	2,570	1,341	379	434	328	88	31%
- Customer	T&D_C	5,766	3,670	764	860	376	96	69%
- Commodity		-	-	-	-	-	-	0%
Total		8,335	5,011	1,143	1,294	703	184	
390.3 Improvements		30,740					Г	T&D
- Demand	T&D_D	9,477	4,947	1,396	1,600	1,209	324	31%
- Customer	T&D_C	21,263	13,535	2,818	3,173	1,385	353	69%
- Commodity		-	-	-	-	-	-	0%
rotal		30,740	18,481	4,214	4.773	2,594	677	

88,116

241,105

329,220

24,874

50,199

75,073

28,505

56,514

85,020

547,580

168,811

378,769

547,580

T&D_D

T&D_C

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

TAB NAME: Alloc Plant

21,540

24,669

46,209

Total

391.0 Office Furniture & Equipment

- Demand

- Customer- Commodity

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large	-	
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
392.0 Transportation Equipment	_	36,044						T&D
- Demand	T&D_D	11,112	5,800	1,637	1,876	1,418	380	31%
- Customer	T&D_C	24,932	15,870	3,304	3,720	1,624	414	69%
- Commodity		-	-	-	-	-	-	0%
Total		36,044	21,670	4,942	5,596	3,042	794	
392.1 Transportation Equipment<12		1,144,927						T&D
- Demand	T&D D	352,964	184,240	52,008	59,602	45,038	12,076	31%
- Customer	T&D_C	791,963	504,122	104,961	118,165	51,580	13,135	69%
- Commodity	_	-	-	-	-	-	-	0%
Total	<u> </u>	1,144,927	688,363	156,969	177,766	96,618	25,211	
393.0 Stores Equipment - GP		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	_	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
394.0 Tools, Shop, & Garage Equip.		394,354						T&D
- Demand	T&D_D	121,573	63,459	17,914	20,529	15,513	4,159	31%
- Customer	T&D_C	272,780	173,638	36,152	40,700	17,766	4,524	69%
- Commodity		-	-	-	-	-	-	0%
Total		394,354	237,096	54,066	61,229	33,279	8,684	
395.0 Laboratory Equipment - GP		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	_	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
396.0 Power Operated Equipment - GP		218,147						T&D
- Demand	T&D_D	67,252	35,104	9,909	11,356	8,581	2,301	31%
- Customer	T&D_C	150,896	96,052	19,999	22,514	9,828	2,503	69%
- Commodity	_	-	-	-	-	-	-	0%
Total		218,147	131,156	29,908	33,870	18,409	4,804	

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv		Classification
	Factor	Company	RS	SGS	MGS	LGS	- Interruptible IN 269 292 - 561 1,800 1,958 - 3,757	Factor
396.1 Ditchers		25,483					Г	T&D
- Demand	T&D_D	7,856	4,101	1,158	1,327	1,002	269	31%
- Customer	T&D_C	17,627	11,220	2,336	2,630	1,148	292	69%
- Commodity		-	-	-	-	-	-	0%
Total		25,483	15,321	3,494	3,957	2,150	561	
396.2 Backhoes		170,625					ſ	T&D
- Demand	T&D_D	52,601	27,457	7,751	8,882	6,712	1,800	31%
- Customer	T&D_C	118,024	75,128	15,642	17,610	7,687	1,958	69%
- Commodity	_	-	-	-	-	-	-	0%
Total		170,625	102,585	23,393	26,492	14,399	3,757	
396.3 Ditches - Group		-					Г	T&D
- Demand	T&D_D	-	-	-	-	_	-	31%
- Customer	T&D C	-	-	-	-	-	-	69%
- Commodity	_	-	-	-	-	-	-	0%
Fotal		-	-	-	-	-	-	
397 Communication Equipment		19,133					Г	T&D
- Demand	T&D_D	5,898	3,079	869	996	753	202	31%
- Customer	T&D_C	13,235	8,424	1,754	1,975	862		69%
- Commodity	_	-	-	-	-	-		0%
Fotal		19,133	11,503	2,623	2,971	1,615	421	
397.2 Comm. Equip Fixed Radios		2,936						T&D
- Demand	T&D_D	905	472	133	153	115	31	31%
- Customer	T&D_C	2,031	1,293	269	303	132		69%
- Commodity	_	-	-	-	-	-	-	0%
- Fotal		2,936	1,765	403	456	248	65	
397.3 Communication Equip - Telemetering		-					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	_	-	-	-	-	-	-	0%
rotal		-	-	-	-	-	-	
397.5 Communication Equipment		-					Г	T&D
- Demand	T&D D	-	-	-	-	-	-	31%
- Customer	T&D_C	_	-	-	-	-	-	69%
- Commodity		_	-	-	-	-	-	0%
Fotal		-	-	-	-	-	-	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Alloc Plant

<u>iberty Utilities (NEMO)</u>				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classificatio
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
98.0 Miscellaneous Equipment		291,534						T&D
- Demand	T&D_D	89,876	46,913	13,243	15,176	11,468	3,075	31%
- Customer	T&D_C	201,658	128,365	26,726	30,088	13,134	3,345	69%
- Commodity		-	-	-	-	-	-	0%
otal		291,534	175,278	39,969	45,265	24,602	6,420	
99.0 OTH-Other Tangible Property		63,637						T&D
- Demand	T&D_D	19,618	10,240	2,891	3,313	2,503	671	31%
- Customer	T&D_C	44,018	28,020	5,834	6,568	2,867	730	69%
- Commodity	_	-	-	-	-	, -	-	0%
otal		63,637	38,260	8,725	9,880	5,370	1,401	
99.1 OTH-Oth Tang Prop - Servers - H/W		7,733						T&D
- Demand	T&D D	2,384	1,244	351	403	304	82	31%
- Customer	T&D_C	5,349	3,405	709	798	348	89	69%
- Commodity	T&D_C	-	-	703	736	-		0%
otal		7,733	4,649	1,060	1,201	653	170	070
			•		•		_	
99.3 Oth Tang Prop - Network H/W		99,026						T&D
- Demand	T&D_D	30,528	15,935	4,498	5,155	3,895	1,044	31%
- Customer	T&D_C	68,498	43,602	9,078	10,220	4,461	1,136	69%
- Commodity		-	-	-	-	-	-	0%
otal		99,026	59,537	13,576	15,375	8,357	2,181	
99.4 Oth Tang Prop - PC Hardward		749,044					Г	T&D
- Demand	T&D_D	230,919	120,535	34,025	38,993	29,465	7,900	31%
- Customer	T&D_C	518,125	329,811	68,668	77,307	33,745	8,593	69%
- Commodity		-	-	-	-	-	-	0%
otal	-	749,044	450,347	102,694	116,300	63,210	16,494	
99.5 Oth Tang Prop - PC Software		4,424,288					Г	T&D
- Demand	T&D_D	1,363,943	711,950	200,974	230,316	174,039	46,664	31%
- Customer	T&D_C	3,060,345	1,948,056	405,595	456,618	199,317	50,758	69%
- Commodity	. 2.3_0	-	-	-	-	-	-	0%
otal		4,424,288	2,660,006	606,569	686,933	373,357	97,422	0,0
otal General Plant		10,714,840						
- Demand		3,303,228	1,724,217	486,722	557,784	421,492	113,012	
				•	•	•	·	
- Customer		7,411,613	4,717,847	982,280	1,105,847	482,711 -	122,927	
- Commodity	_	10.744.040						
Total		10,714,840	6,442,064	1,469,003	1,663,631	904,203	235,939	

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TAB NAME: Alloc Plant

Liberty Utilities (NEMO)				Small	Medium	Large	-	
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
AD Not Reflected in Subledger		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Fotal		-	-	-	-	-	-	
Proforma Adjustments								
AMR Addition		1,364,000						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	1,364,000	812,698	166,457	336,479	40,844	7,523	100%
- Commodity	-	-	-	-	-	-	-	0%
Total		1,364,000	812,698	166,457	336,479	40,844	7,523	
ehicle Additions		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	_	-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
PVC & Steel Mains Replacement		400,000						DISMAIN
- Demand	P&A	182,511	95,267	26,893	30,819	23,288	6,244	46%
- Customer	P&A	217,489	113,525	32,046	36,725	27,752	7,441	54%
- Commodity	-	, -	-	-	-	-	-	0%
otal	<u> </u>	400,000	208,792	58,939	67,544	51,040	13,685	
(irksville Shop		200,000						T&D
- Demand	T&D_D	61,657	32,184	9,085	10,411	7,867	2,109	31%
- Customer	T&D_C	138,343	88,062	18,335	20,641	9,010	2,295	69%
- Commodity	_	-	-	-	-	-	-	0%
otal		200,000	120,246	27,420	31,053	16,878	4,404	
Rate Case Expense		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Fotal		_	-	_	_	_		

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Merit Increases		64,187					Г	T&D
- Demand	T&D_D	19,788	10,329	2,916	3,341	2,525	677	31%
- Customer	T&D_C	44,399	28,262	5,884	6,625	2,892	736	69%
- Commodity		-	-	-	-	-	-	0%
Total		64,187	38,591	8,800	9,966	5,417	1,413	
Vacant Positions		54,173						T&D
- Demand	T&D_D	16,701	8,717	2,461	2,820	2,131	571	31%
- Customer	T&D C	37,472	23,853	4,966	5,591	2,441	621	69%
- Commodity	_	· -	-	-	-	-	-	0%
Total		54,173	32,570	7,427	8,411	4,572	1,193	
CAM Adjustments		(84,115)					Г	T&D
- Demand	T&D D	(25,931)	(13,536)	(3,821)	(4,379)	(3,309)	(887)	31%
- Customer	T&D_C	(58,183)	(37,036)	(7,711)	(8,681)	(3,789)	(965)	69%
- Commodity	145_0	(30,103)	(37,030)	-	-	-	-	0%
Total		(84,115)	(50,572)	(11,532)	(13,060)	(7,098)	(1,852)	
Depreciation Study		_						T&D
- Demand	T&D_D		_	_	_		.	31%
- Customer	T&D_C						_	69%
- Commodity	T&B_C	_	_	_	_	_	_	0%
Total		-	-	-	-	-	-	0,0
FF Dog Assat Adiustment								ON4/F)
EE Reg Asset Adjustment	O14(5) D	-					-	OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	12%
- Customer	OM(F)_C	-	-	-	-	-	-	87%
- Commodity Total	OM(F)_E		-	-	-	-		1%
10141		-	-	-	-	-	-	
Total Proforma Adjustments		1,998,245						
- Demand		254,726	132,962	37,533	43,013	32,503	8,715	
- Customer		1,743,519	1,029,363	219,977	397,380	79,148	17,651	
- Commodity	_	-	-	-	-	-	-	
Total		1,998,245	1,162,324	257,511	440,393	111,651	26,366	
Fotal Utility Plant		69,963,238						
- Demand		21,207,333	11,069,792	3,124,848	3,581,078	2,706,056	725,558	
- Customer		48,755,905	30,955,002	6,450,652	7,411,845	3,141,021	797,386	
- Commodity		-	-	-	-	-	-	
Total		69,963,238	42,024,794	9,575,500	10,992,923	5,847,077	1,522,944	

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TAB NAME: Alloc Plant

<u>.iberty Utilities (NEMO)</u> Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
ntangible Plant								
01.0 Organization								T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
02.0 Franchises & Consents		(45,803)						T&D
- Demand	T&D_D	(14,120)	(7,371)	(2,081)	(2,384)	(1,802)	(483)	31%
- Customer	T&D_C	(31,683)	(20,168)	(4,199)	(4,727)	(2,063)	(525)	69%
- Commodity		-	-	-	-	-	`- '	0%
otal		(45,803)	(27,538)	(6,280)	(7,112)	(3,865)	(1,009)	
03.0 Misc. Intangible Plant		(2,136)						T&D
- Demand	T&D_D	(658)	(344)	(97)	(111)	(84)	(23)	31%
- Customer	T&D_C	(1,478)	(941)	(196)	(220)	(96)	(25)	69%
- Commodity		-	-	-	- '-	-	- 1	0%
otal		(2,136)	(1,284)	(293)	(332)	(180)	(47)	
otal Intangible Plant		(47,939)						
- Demand	·	(14,779)	(7,714)	(2,178)	(2,496)	(1,886)	(506)	
- Customer		(33,160)	(21,108)	(4,395)	(4,948)	(2,160)	(550)	
- Commodity		-	-	-	-	-	-	
otal	<u> </u>	(47,939)	(28,822)	(6,572)	(7,443)	(4,045)	(1,056)	
Production Plant	1							
11.0 Liquified Petroleum Gas Equipment	_	1,184						DEM
- Demand	P(S)	1,184	710	213	185	36	40	100%
- Customer	-	-	710	-	-	-	-	0%
- Commodity	_	-	-	-	-	-	_	0%
otal		1,184	710	213	185	36	40	
otal Production Plant		1,184						
- Demand	-	1,184	710	213	185	36	40	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
- otal		1,184	710	213	185	36	40	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>Liberty Utilities (NEMO)</u> Allocation of Accumulated Depreciation	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
Transmission Plant								
365.0 Land and Land Rights - TP	_	(200)						DEM
- Demand	P&A	(200)	(104)	(29)	(34)	(26)	(7)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total	-	(200)	(104)	(29)	(34)	(26)	(7)	
365.1 Rights-Of-Way		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Гotal		-	-	-	-	-	-	
365.2 Rights-of-way - TP		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Fotal		-	-	-	-	-	-	
366.0 Structures & Improvements		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	ē	-	
366.1 Underground Conduit	_	(2,333)						DEM
- Demand	P&A	(2,333)	(1,218)	(344)	(394)	(298)	(80)	100%
- Customer	-	-	-	-	-	-	- 1	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(2,333)	(1,218)	(344)	(394)	(298)	(80)	
867.0 Mains - Cathodic Protection	_	(9,150)						DEM
- Demand	P&A	(9,150)	(4,776)	(1,348)	(1,545)	(1,168)	(313)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Гotal		(9,150)	(4,776)	(1,348)	(1,545)	(1,168)	(313)	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>Liberty Utilities (NEMO)</u> Allocation of Accumulated Depreciation	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
367.1 Mains - Steel	_	(1,171,381)						DEM
- Demand	P&A	(1,171,381)	(611,437)	(172,600)	(197,800)	(149,468)	(40,076)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(1,171,381)	(611,437)	(172,600)	(197,800)	(149,468)	(40,076)	
367.2 Mains - Plastic	_	(685,374)						DEM
- Demand	P&A	(685,374)	(357,751)	(100,988)	(115,732)	(87,454)	(23,448)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(685,374)	(357,751)	(100,988)	(115,732)	(87,454)	(23,448)	
369.0 Meas. & Reg. Sta. Equipment		(40,710)					Г	DEM
- Demand	P&A	(40,710)	(21,250)	(5,999)	(6,874)	(5,195)	(1,393)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	=	-	-	0%
Total		(40,710)	(21,250)	(5,999)	(6,874)	(5,195)	(1,393)	
370.0 Communication Equipment		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	=	-	-	0%
Total		-	-	-	-	-	-	
Total Transmission Plant		(1,909,148)						
- Demand		(1,909,148)	(996,536)	(281,308)	(322,379)	(243,607)	(65,317)	
- Customer		-	-	-	-	-		
- Commodity			-	-	-	-	-	
Total	_	(1,909,148)	(996,536)	(281,308)	(322,379)	(243,607)	(65,317)	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large	-	
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
	_							
Distribution Plant		(40.000)					-	
374.0 Land & Land Rights		(10,285)						DP
- Demand	DP_D	(3,001)	(1,567)	(442)	(507)	(383)	(103)	29%
- Customer	DP_C	(7,284)	(4,636)	(965)	(1,087)	(474)	(121)	71%
- Commodity	-	-	-	-	-	-	-	0%
Fotal		(10,285)	(6,203)	(1,408)	(1,594)	(857)	(223)	
74.1 T&D Land		-						DP
- Demand	DP_D	-	-	-	-	-	-	29%
- Customer	DP_C	-	-	-	-	-	-	71%
- Commodity		-	-	-	-	-	-	0%
, Fotal		-	-	-	-	-	-	
374.2 Land Rights		(72,311)						DP
- Demand	DP_D	(21,101)	(11,014)	(3,109)	(3,563)	(2,692)	(722)	29%
- Customer	DP_C	(51,210)	(32,598)	(6,787)	(7,641)	(3,335)	(849)	71%
- Commodity	J0	-	-	-	-	-	-	0%
otal		(72,311)	(43,612)	(9,896)	(11,204)	(6,028)	(1,571)	070
375.0 Structures & Improvements		(44,704)						DP
- Demand	DP_D	(13,045)	(6,809)	(1,922)	(2,203)	(1,665)	(446)	29%
- Customer	DP_C	(31,659)	(20,153)	(1,922) (4,196)	(2,203) (4,724)	(2,062)	(525)	71%
- Commodity	DF_C	(31,039)	(20,133)	(4,190)	(4,724)	(2,002)	(323)	0%
- commonty Total	-	(44,704)	(26,962)	(6,118)	(6,926)	(3,726)	(971)	U70
		(22222)					-	
376.0 Mains - Cathodic Protection		(260,272)						DISMAIN
- Demand	P&A	(118,757)	(61,989)	(17,498)	(20,053)	(15,153)	(4,063)	46%
- Customer	P&A	(141,516)	(73,868)	(20,852)	(23,896)	(18,057)	(4,842)	54%
- Commodity	-	-	-	-	-	-	-	0%
otal		(260,272)	(135,857)	(38,350)	(43,950)	(33,211)	(8,905)	
376.1 Mains - Steel	_	(3,996,957)						DISMAIN
- Demand	P&A	(1,823,725)	(951,947)	(268,721)	(307,955)	(232,707)	(62,394)	46%
- Customer	P&A	(2,173,232)	(1,134,382)	(320,220)	(366,973)	(277,304)	(74,352)	54%
- Commodity	-	-	-	-	-	-	- 1	0%
Fotal		(3,996,957)	(2,086,329)	(588,942)	(674,928)	(510,012)	(136,746)	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large		
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
376.2 Mains - Plastic		(4,790,853)						DISMAIN
- Demand	P&A	(2,185,963)	(1,141,028)	(322,096)	(369,122)	(278,929)	(74,787)	46%
- Customer	P&A	(2,604,890)	(1,359,699)	(383,824)	(439,863)	(332,384)	(89,120)	54%
- Commodity	-	-	-	-	-	-	-	0%
Total		(4,790,853)	(2,500,727)	(705,920)	(808,985)	(611,313)	(163,908)	
377.0 Compressor Station Equipment - DP		(18,411)						DEM
- Demand	P&A	(18,411)	(9,610)	(2,713)	(3,109)	(2,349)	(630)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	=	=	-	-	=	-	0%
Total		(18,411)	(9,610)	(2,713)	(3,109)	(2,349)	(630)	
378.0 Meas. & Reg. Sta. Eq-General		(327,963)						DEM
- Demand	P&A	(327,963)	(171,190)	(48,325)	(55,380)	(41,848)	(11,220)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
otal		(327,963)	(171,190)	(48,325)	(55,380)	(41,848)	(11,220)	
879.0 Meas. & Reg City Gate		(309,554)						DEM
- Demand	P&A	(309,554)	(161,581)	(45,612)	(52,271)	(39,499)	(10,591)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(309,554)	(161,581)	(45,612)	(52,271)	(39,499)	(10,591)	
880.0 Services	_	(4,378,817)						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	SV	(4,378,817)	(3,521,227)	(506,894)	(310,731)	(34,061)	(5,903)	100%
- Commodity	-	-	-	-	-	-	-	0%
Total		(4,378,817)	(3,521,227)	(506,894)	(310,731)	(34,061)	(5,903)	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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<u>.iberty Utilities (NEMO)</u> Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
881.0 Meters		(132,589)						CUS
- Demand	-	-	_	_	_	_	_	0%
- Customer	MI	(132,589)	(78,999)	(16,181)	(32,708)	(3,970)	(731)	100%
- Commodity	-	-	-	-	-	-	- /	0%
otal		(132,589)	(78,999)	(16,181)	(32,708)	(3,970)	(731)	
82.0 Meter Installations		(419,219)						CUS
- Demand	-	-	-	_	-	-	-	0%
- Customer	MI	(419,219)	(249,779)	(51,160)	(103,415)	(12,553)	(2,312)	100%
- Commodity	-	-	-	-	-	-	- 1	0%
otal		(419,219)	(249,779)	(51,160)	(103,415)	(12,553)	(2,312)	
83.0 House Regulators		(375,490)						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	R	(375,490)	(188,349)	(84,043)	(90,083)	(10,794)	(2,221)	100%
- Commodity	-	-	=	-	-	-	-	0%
otal		(375,490)	(188,349)	(84,043)	(90,083)	(10,794)	(2,221)	
84.0 House Regulators Installations		(49,061)						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	R	(49,061)	(24,609)	(10,981)	(11,770)	(1,410)	(290)	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		(49,061)	(24,609)	(10,981)	(11,770)	(1,410)	(290)	
85.0 Ind. Meas. & Reg. Sta. Equip	_	(24,538)						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MIL	(24,538)	-	-	-	(20,722)	(3,816)	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		(24,538)	-	-	-	(20,722)	(3,816)	
87.0 Other Equipment - DP	<u> </u>	(6,343)						DP
- Demand	DP_D	(1,851)	(966)	(273)	(313)	(236)	(63)	29%
- Customer	DP_C	(4,492)	(2,859)	(595)	(670)	(293)	(75)	71%
- Commodity	-	-	-	-	-	-	-	0%
otal		(6,343)	(3,826)	(868)	(983)	(529)	(138)	
otal Distribution Plant	<u>-</u>	(15,217,365)						
- Demand		(4,823,369)	(2,517,700)	(710,712)	(814,476)	(615,462)	(165,020)	
- Customer		(10,393,996)	(6,691,159)	(1,406,698)	(1,393,561)	(717,420)	(185,158)	
- Commodity	_	-	-	-	-	-	-	
otal		(15,217,365)	(9,208,859)	(2,117,410)	(2,208,037)	(1,332,882)	(350,178)	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

iberty Utilities (NEMO)				Small	Medium	Large	-	
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
General Plant							_	
389.0 Land & Land Rights	<u> </u>	(9,016)						T&D
- Demand	T&D_D	(2,780)	(1,451)	(410)	(469)	(355)	(95)	31%
- Customer	T&D_C	(6,236)	(3,970)	(827)	(931)	(406)	(103)	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		(9,016)	(5,421)	(1,236)	(1,400)	(761)	(199)	
390.0 Structures & Improvements		(540,559)						T&D
- Demand	T&D_D	(166,647)	(86,986)	(24,555)	(28,140)	(21,264)	(5,701)	31%
- Customer	T&D_C	(373,913)	(238,013)	(49,556)	(55,790)	(24,353)	(6,202)	69%
- Commodity	-	-	-	-	-	-	-	0%
, Total		(540,559)	(325,000)	(74,111)	(83,930)	(45,617)	(11,903)	
390.1 Structures - Frame		(12,516)						T&D
- Demand	T&D_D	(3,859)	(2,014)	(569)	(652)	(403)	(122)	31%
- Customer	T&D_C	(8,658)	(5,511)	, ,	(652) (1,292)	(492)	(132)	69%
- Customer - Commodity	1αD_C -	(8,038)	(5,511)	(1,147) -	(1,292)	(564) -	(144)	0%
Total	-	(12,516)	(7,525)	(1,716)	(1,943)	(1,056)	(276)	0/0
Total		(12,310)	(7,323)	(1,710)	(1,543)	(1,030)	(270)	
390.2 General - Improvements	_	<u> </u>						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
390.3 Improvements		(17,042)						T&D
- Demand	T&D_D	(5,254)	(2,742)	(774)	(887)	(670)	(180)	31%
- Customer	T&D C	(11,788)	(7,504)	(1,562)	(1,759)	(768)	(196)	69%
- Commodity		-	-	-	-	-	`- '	0%
, Fotal	<u> </u>	(17,042)	(10,246)	(2,336)	(2,646)	(1,438)	(375)	
391.0 Office Furniture & Equipment		(69,539)						T&D
- Demand	T&D_D	(21,438)	(11,190)	(3,159)	(3,620)	(2,735)	(733)	31%
- Customer	T&D_D	(48,101)	(30,619)	(6,375)	(7,177)	(3,133)	(798)	69%
- Commodity	- T&D_C	(48,101)	(30,019)	(0,373)	(7,177)	(3,133)	(738)	0%
Total	-	(69,539)	(41,809)	(9,534)	(10,797)	(5,868)	(1,531)	070

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

Liberty Utilities (NEMO)				Small	Medium	Large		
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
892.0 Transportation Equipment	_	(14,687)						T&D
- Demand	T&D_D	(4,528)	(2,363)	(667)	(765)	(578)	(155)	31%
- Customer	T&D_C	(10,159)	(6,467)	(1,346)	(1,516)	(662)	(169)	69%
- Commodity	-	-	-	-	-	-	-	0%
Total Total		(14,687)	(8,830)	(2,014)	(2,280)	(1,239)	(323)	
92.1 Transportation Equipment<12	_	(235,072)						T&D
- Demand	T&D_D	(72,469)	(37,827)	(10,678)	(12,237)	(9,247)	(2,479)	31%
- Customer	T&D_C	(162,602)	(103,504)	(21,550)	(24,261)	(10,590)	(2,697)	69%
- Commodity	-	-	-	-	-	-		0%
otal		(235,072)	(141,332)	(32,228)	(36,498)	(19,837)	(5,176)	
93.0 Stores Equipment - GP		262						T&D
- Demand	T&D_D	81	42	12	14	10	3	31%
- Customer	T&D_C	181	115	24	27	12	3	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		262	158	36	41	22	6	
94.0 Tools, Shop, & Garage Equip.		(111,984)						T&D
- Demand	T&D_D	(34,523)	(18,020)	(5,087)	(5,830)	(4,405)	(1,181)	31%
- Customer	T&D_C	(77,461)	(49,308)	(10,266)	(11,558)	(5,045)	(1,285)	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		(111,984)	(67,328)	(15,353)	(17,387)	(9,450)	(2,466)	
95.0 Laboratory Equipment - GP		576						T&D
- Demand	T&D_D	177	93	26	30	23	6	31%
- Customer	T&D_C	398	253	53	59	26	7	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		576	346	79	89	49	13	
96.0 Power Operated Equipment - GP		(75,340)						T&D
- Demand	T&D_D	(23,226)	(12,124)	(3,422)	(3,922)	(2,964)	(795)	31%
- Customer	T&D_C	(52,114)	(33,173)	(6,907)	(7,776)	(3,394)	(864)	69%
- Commodity	-	-	-	-	-	-	`- '	0%
Total		(75,340)	(45,296)	(10,329)	(11,698)	(6,358)	(1,659)	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

Liberty Utilities (NEMO)				Small	Medium	Large		
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
396.1 Ditchers		(11,289)						T&D
- Demand	T&D_D	(3,480)	(1,817)	(513)	(588)	(444)	(119)	31%
- Customer	T&D_C	(7,809)	(4,971)	(1,035)	(1,165)	(509)	(130)	69%
- Commodity	-	-	-	-	-	-	-	0%
Total Total		(11,289)	(6,787)	(1,548)	(1,753)	(953)	(249)	
96.2 Backhoes		(78,978)						T&D
- Demand	T&D_D	(24,348)	(12,709)	(3,588)	(4,111)	(3,107)	(833)	31%
- Customer	T&D_C	(54,630)	(34,775)	(7,240)	(8,151)	(3,558)	(906)	69%
- Commodity	-	-	=	-	-	-	-	0%
otal		(78,978)	(47,484)	(10,828)	(12,262)	(6,665)	(1,739)	
96.3 Ditches - Group		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
897 Communication Equipment		(6,098)						T&D
- Demand	T&D_D	(1,880)	(981)	(277)	(317)	(240)	(64)	31%
- Customer	T&D_C	(4,218)	(2,685)	(559)	(629)	(275)	(70)	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		(6,098)	(3,666)	(836)	(947)	(515)	(134)	
97.2 Comm. Equip Fixed Radios		(2,142)						T&D
- Demand	T&D_D	(660)	(345)	(97)	(112)	(84)	(23)	31%
- Customer	T&D_C	(1,482)	(943)	(196)	(221)	(97)	(25)	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		(2,142)	(1,288)	(294)	(333)	(181)	(47)	
97.3 Communication Equip - Telemetering		126						T&D
- Demand	T&D_D	39	20	6	7	5	1	31%
- Customer	T&D_C	87	56	12	13	6	1	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		126	76	17	20	11	3	
397.5 Communication Equipment								T&D
- Demand	T&D_D		-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	<u> </u>	<u> </u>	<u> </u>	<u> </u>			0%
Total		-	-	-	-	-	-	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

	Liberty Utilities (NEMO) Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
Customer T&D_D T									Factor
Demand									
Demand	898 0 Miccellaneous Equinment		(107 691)						T&D
- Customer T&D_C (74,492) (47,417) (9,873) (11,114) (4,852) (1,235) (1,245) (1,275) (1		TOD D		(17 220)	(4.902)	/F 606)	(4.226)	(1 126)	31%
- Commodity - Commodity - Commodity - Commodity - Coustomer - Coustomer - Commodity - Coustomer - Commodity - Comm		_							69%
Control Cont		T&D_C							0%
Demand	•	-							U%
Demand			(2)						=0.5
- Customer - Commodity - Commo	<u> </u>	-							T&D
Commodity Cotal Commodity Cotal Cota		_							31%
Second S		T&D_C			(3,126)		(1,536)	(391)	69%
199.1 OTH-Oth Tang Prop - Servers - H/W	-	-						-	0%
- Demand	otal		(34,101)	(20,503)	(4,675)	(5,295)	(2,878)	(751)	
- Customer - Commodity	99.1 OTH-Oth Tang Prop - Servers - H/W	_	(5,051)						T&D
Commodity Comm	- Demand	T&D_D	(1,557)	(813)	(229)	(263)	(199)	(53)	31%
State Stat	- Customer	T&D_C	(3,494)	(2,224)	(463)	(521)	(228)	(58)	69%
99.3 Oth Tang Prop - Network H/W - Demand - Customer - Customer - Commodity - Commodity - Demand - Customer - Commodity - Customer -	- Commodity	-	-	-	-	-	-	-	0%
- Demand T&D_D (17,663) (9,220) (2,603) (2,983) (2,254) (604) - Customer T&D_C (39,631) (25,227) (5,252) (5,913) (2,581) (657) - Commodity	otal		(5,051)	(3,037)	(692)	(784)	(426)	(111)	
- Customer C	99.3 Oth Tang Prop - Network H/W		(57,293)						T&D
- Customer C	- Demand	T&D D	(17,663)	(9,220)	(2,603)	(2,983)	(2,254)	(604)	31%
- Commodity	- Customer							(657)	69%
199.4 Oth Tang Prop - PC Hardward 1461,871 1780_D 142,388 174,324 120,981 124,044 18,169 18,169 18,171 18,1	- Commodity	-	-	-		-		-	0%
- Demand	otal		(57,293)	(34,446)	(7,855)	(8,896)	(4,835)	(1,262)	
- Demand	99.4 Oth Tang Prop - PC Hardward		(461.871)						T&D
- Customer Commodity	• '	T&D D		(74.324)	(20.981)	(24.044)	(18.169)	(4.871)	31%
- Commodity		_							69%
Total (461,871) (277,690) (63,322) (71,712) (38,976) (10,170) 199.5 Oth Tang Prop - PC Software (1,753,679) - Demand T&D_D (540,633) (282,200) (79,661) (91,292) (68,985) (18,496) - Customer (1,213,045) (772,162) (160,768) (180,992) (79,005) (20,119) - Commodity (1,753,679) (1,054,361) (240,429) (272,284) (147,989) (38,616) - Otal General Plant (3,602,985) - Demand (1,110,747) (579,787) (163,666) (187,561) (141,731) (38,002) - Customer (2,492,238) (1,586,429) (330,303) (371,853) (162,317) (41,336)		-			-			-	0%
- Demand	'		(461,871)	(277,690)	(63,322)	(71,712)	(38,976)	(10,170)	
- Demand	199 5 Oth Tang Pron - PC Software		(1 753 679)						T&D
- Customer - Customer - Commodity - Customer - Cus		ת תאד		(282 200)	(79 661)	(91 292)	(62 925)	(18 496)	31%
- Commodity									69%
Fotal General Plant (3,602,985) - Demand (1,10,747) (579,787) (163,666) (187,561) (141,731) (38,002) - Customer (2,492,238) (1,586,429) (330,303) (371,853) (162,317) (41,336)									0%
- Demand (1,110,747) (579,787) (163,666) (187,561) (141,731) (38,002) - Customer (2,492,238) (1,586,429) (330,303) (371,853) (162,317) (41,336)	'								070
- Demand (1,110,747) (579,787) (163,666) (187,561) (141,731) (38,002) - Customer (2,492,238) (1,586,429) (330,303) (371,853) (162,317) (41,336)	otal Canaral Blant		(2.602.005)						
- Customer (2,492,238) (1,586,429) (330,303) (371,853) (162,317) (41,336)		-		(EZO ZOZ)	(162.000)	(107 FC1)	(1/1 721)	/20.003\	
- Commodity									
(3,602,985) (2,166,216) (493,969) (559,415) (304,048) (79,337)	•	_							

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large	-	
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
AD Not Reflected in Subledger		(68,629)						T&D
- Demand	T&D_D	(21,157)	(11,044)	(3,118)	(3,573)	(2,700)	(724)	31%
- Customer	T&D_C	(47,472)	(30,218)	(6,292)	(7,083)	(3,092)	(787)	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		(68,629)	(41,262)	(9,409)	(10,656)	(5,792)	(1,511)	
Proforma Adjustments								
AMR Addition	_	(68,336)						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	(68,336)	(40,716)	(8,339)	(16,858)	(2,046)	(377)	100%
- Commodity	-	-	-	-	-	-	-	0%
Total		(68,336)	(40,716)	(8,339)	(16,858)	(2,046)	(377)	
Vehicle Additions		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total	_	-	-	-	-	-	-	
PVC & Steel Mains Replacement		(7,440)						DISMAIN
- Demand	P&A	(3,395)	(1,772)	(500)	(573)	(433)	(116)	46%
- Customer	P&A	(4,045)	(2,112)	(596)	(683)	(516)	(138)	54%
- Commodity	-	-	-	-	-	-	-	0%
Total		(7,440)	(3,884)	(1,096)	(1,256)	(949)	(255)	
Kirksville Shop		(5,620)					Г	T&D
- Demand	T&D_D	(1,733)	(904)	(255)	(293)	(221)	(59)	31%
- Customer	T&D_C	(3,887)	(2,475)	(515)	(580)	(253)	(64)	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		(5,620)	(3,379)	(771)	(873)	(474)	(124)	
Rate Case Expense		-					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

Liberty Utilities (NEMO)				Small	Medium	Large		01 15: 11
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Merit Increases	_	(3,209)						T&D
- Demand	T&D_D	(989)	(516)	(146)	(167)	(126)	(34)	31%
- Customer	T&D_C	(2,220)	(1,413)	(294)	(331)	(145)	(37)	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		(3,209)	(1,930)	(440)	(498)	(271)	(71)	
Vacant Positions		(2,709)						T&D
- Demand	T&D_D	(835)	(436)	(123)	(141)	(107)	(29)	31%
- Customer	T&D_C	(1,874)	(1,193)	(248)	(280)	(122)	(31)	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		(2,709)	(1,629)	(371)	(421)	(229)	(60)	
CAM Adjustments		4,206						T&D
- Demand	T&D_D	1,297	677	191	219	165	44	31%
- Customer	T&D_D	2,909	1,852	386	434	189	48	69%
- Commodity	TAD_C	-	-	-	-	-	-40	0%
Total		4,206	2,529	577	653	355	93	070
							_	
Depreciation Study								T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
EE Reg Asset Adjustment	_							OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	12%
- Customer	OM(F)_C	-	-	-	-	-	-	87%
- Commodity	OM(F)_E	-	-	-	-	-	-	1%
Total		-	-	-	-	-	-	
Total Proforma Adjustments		(83,109)						
- Demand	_	(5,655)	(2,952)	(833)	(955)	(722)	(193)	
- Customer		(77,454)	(46,056)	(9,608)	(18,297)	(2,893)	(599)	
- Commodity		-	-	-	-	-	-	
Total	-	(83,109)	(49,008)	(10,441)	(19,252)	(3,614)	(793)	
Total Utility Plant		(20,927,991)						
- Demand	_	(7,883,672)	(4,115,023)	(1,161,601)	(1,331,255)	(1,006,072)	(269,721)	
- Customer		(13,044,319)	(8,374,970)	(1,757,295)	(1,795,743)	(887,881)	(228,430)	
- Commodity		-	-	-	-	-	-	
Total		(20,927,991)	(12,489,993)	(2,918,896)	(3,126,997)	(1,893,953)	(498,151)	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

Liberty Utilities (NEMO)				Small	Medium	Large		
Allocation of Rate Base	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Net Plant in Service								
Total Gas Utility Plant								
- Demand		21,207,333	11,069,792	3,124,848	3,581,078	2,706,056	725,558	
- Customer		48,755,905	30,955,002	6,450,652	7,411,845	3,141,021	797,386	
- Commodity		-	-	-	-	-	-	
Total	_	69,963,238	42,024,794	9,575,500	10,992,923	5,847,077	1,522,944	
Total Accumulated Depreciation								
- Demand		(7,883,672)	(4,115,023)	(1,161,601)	(1,331,255)	(1,006,072)	(269,721)	
- Customer		(13,044,319)	(8,374,970)	(1,757,295)	(1,795,743)	(887,881)	(228,430)	
- Commodity		-	-	-	-	-	-	
Total	_	(20,927,991)	(12,489,993)	(2,918,896)	(3,126,997)	(1,893,953)	(498,151)	
Net Plant in Service								
- Demand		13,323,661	6,954,769	1,963,247	2,249,823	1,699,984	455,837	
- Customer		35,711,585	22,580,031	4,693,356	5,616,102	2,253,140	568,956	
- Commodity		-	-	-	-	-	-	
Total		49,035,246	29,534,801	6,656,604	7,865,925	3,953,124	1,024,793	
Additions to Utility Plant								
Storage Gas		1,525,253						СОМ
- Demand		-	-	-	-	-	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	P&A W	1,525,253	899,880	261,243	246,981	56,967	60,183	100%
Total		1,525,253	899,880	261,243	246,981	56,967	60,183	
Prepaid Expenses		98,002						OM(F)
- Demand	OM(F)_D	11,866	6,194	1,748	2,004	1,514	406	12%
- Customer	OM(F)_C	85,158	68,334	8,956	5,218	2,112	537	87%
- Commodity	OM(F)_E	979	452	131	179	174	42	1%
Total		98,002	74,979	10,836	7,401	3,800	986	
Cash Working Capital		223,368						CWC
- Demand	CWC	38,578	24,286	5,232	5,570	2,478	1,013	17%
- Customer	CWC	128,251	80,737	17,395	18,516	8,237	3,367	57%
- Commodity	CWC	56,539	35,592	7,668	8,163	3,631	1,484	25%
Total		223,368	140,615	30,295	32,249	14,345	5,864	

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large	-	
Allocation of Rate Base	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Regulatory Asset - Energy Efficiency		69,045						OM(F)
- Demand	OM(F)_D	8,360	4,364	1,232	1,412	1,067	286	12%
- Customer	OM(F)_C	59,996	48,143	6,310	3,677	1,488	379	87%
- Commodity	OM(F)_E	689	318	93	126	123	30	1%
Total		69,045	52,825	7,634	5,214	2,677	694	
Total Additions to Utility Plant								
- Demand		58,803	34,843	8,212	8,985	5,058	1,705	
- Customer		273,405	197,214	32,661	27,411	11,837	4,283	
- Commodity		1,583,460	936,243	269,136	255,448	60,895	61,739	
Total	_	1,915,669	1,168,299	310,009	291,844	77,790	67,727	
Reductions to Utility Plant								
Accumulated Deferred Income Taxes		(5,911,981)						T&D
- Demand	T&D_D	(1,822,577)	(951,348)	(268,552)	(307,761)	(232,561)	(62 <i>,</i> 355)	31%
- Customer	T&D_C	(4,089,404)	(2,603,102)	(541,979)	(610,158)	(266,339)	(67,826)	69%
- Commodity		-	-	-	-	-	-	0%
Total		(5,911,981)	(3,554,449)	(810,532)	(917,919)	(498,900)	(130,181)	
Rate Base Offset		(2,671,353)					[T&D
- Demand	T&D_D	(823,539)	(429,870)	(121,346)	(139,063)	(105,084)	(28,175)	31%
- Customer	T&D_C	(1,847,814)	(1,176,222)	(244,896)	(275,702)	(120,346)	(30,647)	69%
- Commodity		-	-	-	-	-	-	0%
Total		(2,671,353)	(1,606,093)	(366,242)	(414,765)	(225,430)	(58,823)	
Customer Deposits		(704,413)					[CUS
- Demand		-	-	-	-	-	-	0%
- Customer	CD	(704,413)	(609,625)	(81,905)	(12,884)	-	-	100%
- Commodity		-	-	-	-	-	-	0%
Total		(704,413)	(609,625)	(81,905)	(12,884)	-	-	

Cost of Service Study 12 Months Ending June 30, 2017

<u>Liberty Utilities (NEMO)</u> Allocation of Rate Base	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
Customer Advances		(284)						MAINSVC
- Demand	P&A	(89)	(46)	(13)	(15)	(11)	(3)	31%
- Customer		(195)	(127)	(26)	(24)	(14)		69%
- Customer - Commodity	MS_C	(195)	(127)	(26)	(24)	(14)	(4)	0%
Total		(284)	(173)	(39)	(39)	(26)	(7)	070
Total Deductions								
- Demand		(2,646,204)	(1,381,264)	(389,912)	(446,839)	(337,656)	(90,534)	
- Customer		(6,641,826)	(4,389,076)	(868,805)	(898,768)	(386,700)	(98,477)	
- Commodity		-	-	-	-	-	-	
Total		(9,288,030)	(5,770,340)	(1,258,717)	(1,345,607)	(724,355)	(189,010)	
Total Rate Base								
- Demand		10,736,260	5,608,348	1,581,548	1,811,969	1,367,387	367,008	
- Customer		29,343,165	18,388,169	3,857,212	4,744,745	1,878,277	474,762	
- Commodity		1,583,460	936,243	269,136	255,448	60,895	61,739	
Total		41,662,885	24,932,760	5,707,896	6,812,162	3,306,558	903,509	

Liberty Utilities (NEMO)				Small	Medium	Large	-	
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	- Interruptible	Classification
Anocation of Oath Expenses	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
		company					-114	- ractor
Production Expense								
Manufactured Gas Production Expense								
733 Gas Mixing Expenses		-						СОМ
- Demand		-	-	-	-	_	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	P(S)	-	-	-	-	-	-	100%
Total		-	-	-	-	-	-	
735 Miscellaneous Production Expenses	-	-						СОМ
- Demand		-	-	-	-	-	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	P(S)	-	-	-	-	-	-	100%
Total		-	-	-	-	-	-	
							_	
742 Maintenance of Production Equipment		-						СОМ
- Demand		-	-	-	-	-	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	P(S)	-	-	-	-	-	-	100%
Total		-	-	-	-	-	-	
Total Production Expenses	-	-						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-	-	
Total		-	-	-	-	-	-	
	•							
Natural Gas Storage Expenses								
820 Measuring & Regulating Station Equipment	-	-						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-	-	
Total		-	-	-	-	-	-	
O2C Davids								
826 Rents	-							
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-		
Total		-	-	-	-	-	-	

iberty Utilities (NEMO)				Small	Medium	Large	-	ol .c
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
841 Operation Labor and Expenses		_						
- Demand	-			_		_	_	
- Customer		_		_	_	_	_	
- Commodity		_	_	_	_	_	_	
Total	_	-	-	-	-	-		
Total Natural Gas Storage Expenses	_							
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-		
Гotal		-	-	-	-	-	-	
	-							
Transmission Expenses	1							
Operations Expenses								
351 Operating Supervision & Engineering	· <u>-</u>	-						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	<u> </u>	-	<u> </u>	-	-		
Total		-	-	-	-	-	-	
352 Communication System Expenses		-						
- Demand	·		-	_	-	_	_	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Total	_	-	-	-	-	-	-	
356 Mains Expense	. <u>-</u>	-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	=	-	-	-	0%
Total		-	-	-	-	-	-	
857 Measuring & Regulating Station Equipment	-	-					ļ	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%

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iberty Utilities (NEMO) Allocation of O&M Expenses	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
858 Transmission and Compression of G	as by Others	-						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity			-	-	-			
Total	_	-	-	-	-	-	-	
Total Transmission Operations Expenses	<u>. </u>							
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-		
Total		-	-	-	-	-		
Maintenance Expenses								
861 Maintenance Supervision & Enginee	ering							
- Demand		-	-	-	-	-	-	
- Customer- Commodity		-	-	-	-	-	-	
- Commodity Total	-	<u> </u>	-	<u> </u>	<u> </u>		-	
863 Maintenance of Mains								
- Demand		 _						
- Customer		-	-	-	-	-	-	
- Commodity		-	<u>-</u>	-	-	_	-	
Total	-	-	-	-	-	-	-	
864 Maintenance of Compressor Station	ı Equipment	-						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-		=	-	-	-	
Total	_	-	-	-	-	-	-	
865 Maintenance of Measuring & Regula	ating Equipment							DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	

<u>Liberty Utilities (NEMO)</u> Allocation of O&M Expenses	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
867 Maintenance of Other Equipment		-						
- Demand	<u>-</u>	-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	=	=	=	-	=	
Total		-	-	-	-	-	-	
Total Transmission Maintenance Expenses	_	<u>-</u>						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-	-	
Total		-	-	-	-	-	-	
Total Transmission O&M Expenses								
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	=	-	-	-	
Total		-	-	-	-	-	-	
Distribution Expenses Operations Expenses								
870 Supervision & Engineering	- 	72,991					Г	OPER
- Demand	Oper_D	19,844	10,358	2,924	3,351	2,532	679	27%
- Customer	Oper_C	51,512	33,220	6,831	7,226	3,365	869	71%
- Commodity	Oper_E	1,635	755	220	298	291	71	2%
Total		72,991	44,334	9,975	10,875	6,188	1,619	
871 Load Dispatching & Odorization	_						Г	COM
- Demand		-	-	-	-	-	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	AV	-	-	-	-	-	-	100%
Total		-	-	-	-	-	-	
871.1 Load Dispatching & Odorization	_	16,788					Г	COM
- Demand		-	-	-	-	-	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	AV	16,788	7,756	2,256	3,063	2,986	728	100%
Total		16,788	7,756	2,256	3,063	2,986	728	

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Liberty Utilities (NEMO)				Small	Medium	Large		
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
872 Compressor Station Labor & Expense	_							DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
374 Mains & Service Expenses		644,026						MAINSVC
- Demand	MS_D	201,731	105,300	29,725	34,064	25,741	6,902	31%
- Customer	MS_C	442,295	287,840	58,794	54,920	32,245	8,497	69%
- Commodity		-	-	-	-	-	-	0%
Гotal		644,026	393,140	88,518	88,985	57,985	15,398	
375 Meas. & Reg. Sta. Expenses - General		2,056						DEM
- Demand	P&A	2,056	1,073	303	347	262	70	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		2,056	1,073	303	347	262	70	
876 Meas. & Reg. Sta. Expenses - Industrial		-						CUS
- Demand	-	-	-	-	-	_	-	0%
- Customer	P(L)	-	-	-	-	-	-	100%
- Commodity	` '	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
877 Meas. & Reg. Sta. Expenses - City Gate		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
- Total		-	-	-	-	-	-	
378 Meter & House Reg. Expenses	_	86,714						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	M&R	86,714	53,316	11,362	19,289	2,317	430	100%
- Commodity		-	-	-	-	-	-	0%
Total		86,714	53,316	11,362	19,289	2,317	430	

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Liberty Utilities (NEMO) Allocation of O&M Expenses	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
	ractor	company	N3	343	MGS	203		ractor
879 Customer Installations Expenses	<u></u>						Ī	CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MRS	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
Total	•	-	-	-	-	-	-	
880 Other Expenses		-						OPER
- Demand	Oper_D	-	-	-	-	-	-	27%
- Customer	Oper_C	-	-	-	-	-	-	71%
- Commodity	Oper_E	-	-	-	-	_	_	2%
Total	SPS:_2	-	-	-	-	-	-	_,
881 Rents		-					Г	OPER
- Demand	Oper_D	_	-	-	-	_	_	27%
- Customer	Oper_C	-	-	-	-	_	_	71%
- Commodity	Oper_E	-	-	-	-	_	_	2%
Total	' =	-	-	-	-	-	-	
Total Operations Expenses		822,576						
- Demand		223,631	116,731	32,952	37,762	28,535	7,651	
- Customer		580,521	374,376	76,987	81,435	37,927	9,796	
- Commodity		18,423	8,511	2,475	3,362	3,277	798	
Total .	-	822,576	499,618	112,414	122,560	69,739	18,245	
Maintenance Expense								
885 Supervision & Engineering		<u> </u>					Г	DP
- Demand	DP_D	-	-	-	-	-	-	29%
- Customer	DP_C	-	-	-	-	-	-	71%
- Commodity	_	-	-	-	-	-	-	0%
Total	1	-	-	-	-	-	-	
886 Structures - Improvements		-					Г	DP
- Demand	DP_D	-	-	-	-	-	-	29%
- Customer	DP_C	-	-	-	-	-	-	71%
- Commodity		-	-	-	-	-	-	0%
Total		_	-	_	-	_		2,1

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<u>.iberty Utilities (NEMO)</u> Allocation of O&M Expenses	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
887 Mains	_	(774)						DP
- Demand	DP_D	(226)	(118)	(33)	(38)	(29)	(8)	29%
- Customer	DP_C	(548)	(349)	(73)	(82)	(36)	(9)	71%
- Commodity		-	-	-	-	-	-	0%
Total		(774)	(467)	(106)	(120)	(65)	(17)	
888 Compressor Station Eqiupment	_	<u>-</u> _						DP
- Demand	DP_D	-	-	-	-	-	-	29%
- Customer	DP_C	-	-	-	-	-	-	71%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
890 Meas. & Reg. Sta. Equip Industrial	_	<u> </u>						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MIL	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
891 Meas. & Reg. Sta. Equip City Gate	_							DP
- Demand	DP_D	-	-	-	-	-	-	29%
- Customer	DP_C	-	-	-	-	-	-	71%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
892 Services		8,829						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	SV	8,829	7,100	1,022	627	69	12	100%
- Commodity		=	-	-	-	-	-	0%

7,100

247

247

1,022

53

53

627

89

89

8,829

402

402

402

M&R

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69

11

11

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Total

Total

893 Meter & House Regulators

- Demand

- Customer

- Commodity

TAB NAME: Alloc O&M

CUS

0%

100% 0%

12

2

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large	-	
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
204.01. 5							-	20
894 Other Equipment								DP
- Demand	DP_D	-	-	-	-	-	-	29%
- Customer	DP_C	-	-	-	-	-	-	71%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
895 Other Equipment		<u>-</u>						DP
- Demand	DP_D	-	-	-	-	-	- [29%
- Customer	DP_C	-	-	-	-	-	-	71%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Total Maintenance Expense		8,457						
- Demand		(226)	(118)	(33)	(38)	(29)	(8)	
- Customer		8,683	6,998	1,002	634	44	5	
- Commodity		-	-	-	-	-	-	
Total	_	8,457	6,880	969	596	15	(3)	
Total Distribution O&M Expenses		831,032						
- Demand		223,405	116,613	32,918	37,724	28,507	7,643	
- Customer		589,204	381,374	77,989	82,069	37,971	9,800	
- Commodity		18,423	8,511	2,475	3,362	3,277	798	
Total		831,032	506,498	113,383	123,155	69,754	18,242	
Customer Account Expense 901 Supervision		_						CUS
- Demand							.	0%
- Customer	В	-	-	-	-	-		100%
- Customer - Commodity	В	-	-	-	-	-	-	0%
Total		-	-		-	-	-	078
							-	
902 Meter Reading Expenses	— _{———} -	70,943					Ļ	CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MQ	70,943	61,113	8,416	1,344	61	8	100%
- Commodity		-	-	-	-	-	-	0%
Total		70,943	61,113	8,416	1,344	61	8	

iberty Utilities (NEMO)				Small	Medium	Large		
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
03 Customer Records & Collection Expenses		637,940						CUS
- Demand		-	<u>-</u>	-	-	_	_	0%
- Customer	903Expense	637,940	553,948	71,759	11,451	694	87	100%
- Commodity	SOSEAPENSE	-	-	-	-	-	-	0%
otal		637,940	553,948	71,759	11,451	694	87	
04 Uncollectible Accounts		225,893						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	904Expense	225,893	221,536	1,246	1,939	961	211	100%
- Commodity	•	-	-	-	-	-	-	0%
otal		225,893	221,536	1,246	1,939	961	211	
05 Misc. Customer Accounts Expenses		-						CUS
- Demand		_	-	-	-	-	-	0%
- Customer	EXP_902-904_C	-	-	-	-	-	_	100%
- Commodity		-	-	-	-	-	-	0%
otal ,	1	-	-	-	-	-	-	
otal Customer Account Expenses		934,776						
- Demand	_	-	-	-	-	-	_	
- Customer		934,776	836,598	81,421	14,734	1,716	306	
- Commodity		-	-	-	-	-	-	
otal	_	934,776	836,598	81,421	14,734	1,716	306	
ustomer Service Expenses	T							
07 Supervision	_	-						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	В	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
otal .		-	-	-	-	-	-	
08 Customer Assistance Expenses		65,884						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	В	65,884	56,956	7,652	1,204	65	7	100%
- Commodity		-	-	-	-	-	-	0%
otal		65,884	56,956	7,652	1,204	65	7	

iberty Utilities (NEMO)				Small	Medium	Large		
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
09 Informational and Instructional Adver	ticing Evnences	11,332						CUS
- Demand	Listing Expenses	11,332	-	_	_	_	_	0%
- Customer	В	11,332	- 9,796	1,316	207	- 11	1	100%
- Customer - Commodity	В	-	<i>5,75</i> 0	-	-	-	_ 1	0%
otal		11,332	9,796	1,316	207	11	1	070
110 Misc Customer Service & Information	al Evnanças	_						CUS
	ai Expenses	-						
- Demand		-	-	-	-	-	-	0%
- Customer	В	-	-	-	-	-	-	100% 0%
- Commodity ⁻ otal		-	<u> </u>	<u> </u>	-	-	-	0%
otal Customer Service Expenses		77,216						
- Demand		-	-	-	-	-	-	
- Customer		77,216	66,752	8,968	1,411	76	8	
- Commodity	_	-	-	-	-	-		
otal		77,216	66,752	8,968	1,411	76	8	
ales Promotion Expenses								
11 Supervision	<u> </u>	-						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	В	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
12 Demonstrating & Selling Expenses		-						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	В	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
13 Advertising		2,156						CUS
- Demand		-,	<u>-</u>	-	-	_	_	0%
- Customer	В	2,156	1,864	250	39	2	0	100%
- Commodity		-	-	-	-	-	-	0%
Fotal		2,156	1,864	250	39	2	0	070

<u>.iberty Utilities (NEMO)</u> Allocation of O&M Expenses	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
915 Supervision		_					Г	CUS
- Demand			_	_	_	_	. 1	0%
- Customer	В	_	_	_		_	_	100%
- Commodity	5	_	_	_	_	_	_	0%
Total		-	-	-	-	-	-	0,0
916 Miscellaneous Sales Expense		_					Г	CUS
- Demand	_		_	_	_	_	.	0%
- Customer	В	_	_	_	_	_	_	100%
- Commodity		-	-	-	-	_	_	0%
Total		-	-	-	-	-	-	5 70
Fotal Sales Expense		2,156						
- Demand	_	-	-	-	-	_	_	
- Customer		2,156	1,864	250	39	2	0	
- Commodity		, -	-	_	-	-	-	
rotal .	_	2,156	1,864	250	39	2	0	
Administrative & General Expense Operations								
920 Administrative and general salaries		794,307					Г	OM(F)
- Demand	OM(F)_D	96,171	50,199	14,171	16,239	12,271	3,290	12%
- Customer	OM(F)_C	690,205	553,846	72,591	42,296	17,118	4,354	87%
- Commodity	OM(F)_E	7,931	3,664	1,066	1,447	1,410	344	1%
Total		794,307	607,709	87,827	59,982	30,800	7,988	
921 Office Supplies & Expense		312,135					Г	OM(F)
- Demand	OM(F)_D	37,792	19,727	5,569	6,382	4,822	1,293	12%
- Customer	OM(F)_C	271,227	217,643	28,526	16,621	6,727	1,711	87%
- Commodity	OM(F)_E	3,117	1,440	419	569	554	135	1%
Total		312,135	238,809	34,513	23,571	12,103	3,139	
922 Administrative expense Transferred	<u> </u>	(171,825)					ſ	OM(F)
- Demand	OM(F)_D	(20,804)	(10,859)	(3,065)	(3,513)	(2,655)	(712)	12%
- Customer	OM(F)_C	(149,306)	(119,808)	(15,703)	(9,149)	(3,703)	(942)	87%
- Commodity	OM(F)_E	(1,716)	(793)	(231)	(313)	(305)	(74)	1%
Total		(171,825)	(131,460)	(18,999)	(12,975)	(6,663)	(1,728)	<u></u>

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large	-	
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
							-	21.1(5)
923 Outside Services		904,169						OM(F)
- Demand	OM(F)_D	109,472	57,142	16,130	18,486	13,969	3,745	12%
- Customer	OM(F)_C	785,669	630,450	82,631	48,146	19,485	4,957	87%
- Commodity	OM(F)_E	9,028	4,171	1,213	1,647	1,606	391	1%
Total		904,169	691,762	99,975	68,279	35,060	9,093	
924 Property Insurance - Debits		72,135						OM(F)
- Demand	OM(F)_D	8,734	4,559	1,287	1,475	1,114	299	12%
- Customer	OM(F)_C	62,681	50,297	6,592	3,841	1,555	395	87%
- Commodity	OM(F)_E	720	333	97	131	128	31	1%
Total		72,135	55,189	7,976	5,447	2,797	725	
NAT Injuries and Damages								OM(F)
225 Injuries and Damages	O14(5) D	-						. ,
- Demand	OM(F)_D	-	-	-	-	-	-	12%
- Customer	OM(F)_C	-	-	-	-	-	-	87%
- Commodity	OM(F)_E	-	-	<u>-</u>	-	-	-	1%
Fotal		-	-	-	-	-	-	
226 Employee Welfare/Pensions	<u></u>	704,675						OM(F)
- Demand	OM(F)_D	85,319	44,535	12,571	14,407	10,887	2,919	12%
- Customer	OM(F)_C	612,321	491,349	64,400	37,523	15,186	3,863	87%
- Commodity	OM(F)_E	7,036	3,250	945	1,284	1,251	305	1%
Fotal	-	704,675	539,134	77,916	53,214	27,324	7,087	
927 Franchise Requirements		-						OM(F)
- Demand	OM(F) D	_	-	_	-	_		12%
- Customer	OM(F)_C	-	-	-	-	_	_	87%
- Commodity	OM(F)_E	_	_	_	_	-	_	1%
Total	(· / <u>-</u> -	-	-	-	-	-	-	
128 Regulatory Commission Expense		49,578						OM(F)
- Demand	OM(F)_D	6,003	3,133	884	1,014	766	205	12%
- Customer	OM(F)_C	43,080	34,569	4,531	2,640	1,068	272	87%
- Commodity	OM(F)_E	43,080	229	4,331	90	1,008	21	1%
Total	Olvi(i /_L	49,578	37,931	5,482	3,744	1,922	499	1/0

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Alloc O&M

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large		
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
129 Duplicate Charges		-						OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	12%
- Customer	OM(F)_C	-	-	-	-	-	-	87%
- Commodity	OM(F)_E	-	-	-	-	-	-	1%
otal		-	-	-	-	-	-	
30 Miscellaneous General		-						OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	12%
- Customer	OM(F)_C	-	-	-	-	-	-	87%
- Commodity	OM(F)_E	-	-	-	-	-	-	1%
otal		-	-	-	-	-	-	
30.1 General Advertising Expenses		<u>-</u> _						OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	12%
- Customer	OM(F)_C	-	-	-	-	-	-	87%
- Commodity	OM(F)_E	-	-	-	-	-	-	1%
otal		-	-	-	-	-	-	
30.2 Miscellaneous General		40,094						OM(F)
- Demand	OM(F)_D	4,854	2,534	715	820	619	166	12%
- Customer	OM(F)_C	34,840	27,957	3,664	2,135	864	220	87%
- Commodity	OM(F)_E	400	185	54	73	71	17	1%
otal		40,094	30,675	4,433	3,028	1,555	403	
31 Rents		49,556						OM(F)
- Demand	OM(F)_D	6,000	3,132	884	1,013	766	205	12%
- Customer	OM(F)_C	43,061	34,554	4,529	2,639	1,068	272	87%
- Commodity	OM(F)_E	495	229	66	90	88	21	1%
otal		49,556	37,915	5,479	3,742	1,922	498	
otal A&G Expense		2,754,824						
- Demand		333,541	174,101	49,146	56,322	42,560	11,411	
- Customer		2,393,778	1,920,856	251,760	146,691	59,368	15,102	
- Commodity	<u> </u>	27,506	12,707	3,696	5,019	4,892	1,192	
otal		2,754,824	2,107,664	304,603	208,032	106,820	27,705	
otal O&M Expense		4,600,004						
- Demand		556,946	290,714	82,065	94,046	71,066	19,055	
- Customer		3,997,129	3,207,444	420,390	244,944	99,133	25,218	
- Commodity		45,929	21,218	6,171	8,381	8,168	1,990	
Total		4,600,004	3,519,377	508,625	347,371	178,368	46,263	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Intangible Plant								
301.0 Organization	_	<u>-</u> _					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total	-	-	-	-	-	-	-	
302.0 Franchises & Consents		-					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
303.0 Misc. Intangible Plant		-					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Total Intangible Plant		-						
- Demand	_	-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Total	_	-	-	-	-	-	-	
Production Plant								
	_							
311.0 Liquified Petroleum Gas Equipment		-						DEM
- Demand	P(S)	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Total Production Plant	_	<u> </u>						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity			<u> </u>	-	-	-		
Total	_	-	-	-	-	-	-	

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Transmission Plant								
Transmission Flanc								
365.0 Land and Land Rights - TP		<u> </u>						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
365.1 Rights-Of-Way		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
365.2 Rights-of-way - TP		_						DEM
- Demand	P&A		-	_	_	_	_	100%
- Customer	-	-	-	-	-	_	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
266.0.65								DEM
366.0 Structures & Improvements	D0.4							DEM 100%
- Demand - Customer	P&A	-	-	-	-	-	-	100% 0%
- Customer - Commodity		-	-	-	-	-	-	0%
Total		-	_	-	-	-	-	070
							_	
366.1 Underground Conduit	— ,	848						DEM
- Demand	P&A	848	443	125	143	108	29	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		848	443	125	143	108	29	
367.0 Mains - Cathodic Protection		324						DEM
- Demand	P&A	324	169	48	55	41	11	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		324	169	48	55	41	11	

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
367.1 Mains - Steel		18,226					Г	DEM
			0.540	2.505	2.070	2 225	62.4	
- Demand	P&A	18,226	9,513	2,686	3,078	2,326	624	100%
CustomerCommodity	-	-	-	-	-	-	-	0% 0%
- Commodity Total	-	18,226	9,513	2,686	3,078	2,326	624	U%
Total		18,220	9,313	2,080	3,076	2,320	024	
367.2 Mains - Plastic		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
369.0 Meas. & Reg. Sta. Equipment		3,025					Г	DEM
- Demand	P&A	3,025	1,579	446	511	386	103	100%
- Customer	-	-	-,	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		3,025	1,579	446	511	386	103	
370.0 Communication Equipment							Г	DEM
- Demand	P&A						_	100%
- Customer	FQA	-	-	-	-	-	-	0%
- Commodity	- -	-	-			-	-	0%
Total		-	-	-	-	-	-	370
Total Transmission Plant		22,422						
- Demand		22,422	11,704	3,304	3,786	2,861	767	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Total		22,422	11,704	3,304	3,786	2,861	767	

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Distribution Expense							_	
374.0 Land & Land Rights		<u>-</u>						DP
- Demand	DP_D	-	-	-	-	-	-	29%
- Customer	DP_C	-	-	-	-	-	-	71%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
374.1 T&D Land		-					Ī	DP
- Demand	DP_D	-	-	-	-	-	-	29%
- Customer	DP_C	-	-	-	-	-	-	71%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
374.2 Land Rights		_					Г	DP
- Demand	DP_D	_	_	_	_	_	_	29%
- Customer	DP_C	_	_	_	_	_	_	71%
- Commodity		_	-	-	_	_	_	0%
Total		-	-	-	-	-	-	0,0
375.0 Structures & Improvements		1,767					Г	DP
- Demand	DP_D	516	269	76	87	66	18	29%
- Customer	DP_C	1,252	797	166	187	82	21	71%
- Commodity	DF_C	-	-	-	-	-		0%
Total		1,767	1,066	242	274	147	38	070
376.0 Mains - Cathodic Protection		15,038					Г	DISMAIN
- Demand	P&A	6,861	3,581	1,011	1,159	876	235	46%
- Demand - Customer	P&A P&A	8,176					280	46% 54%
	PAA	8,176	4,268	1,205	1,381	1,043	280	54% 0%
- Commodity Total	-	15,038		2,216	2,539		514	U70
			, -	, -	, -		_	
376.1 Mains - Steel	— ,	151,936					L	DISMAIN
- Demand	P&A	69,325	36,186	10,215	11,706	8,846	2,372	46%
- Customer	P&A	82,611	43,121	12,173	13,950	10,541	2,826	54%
- Commodity	-	-	-	-	-	-	-	0%
Total		151,936	79,308	22,387	25,656	19,387	5,198	

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large		
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
376.2 Mains - Plastic		306,151						DISMAIN
- Demand	P&A	139,690	72,915	20,583	23,588	17,824	4,779	46%
- Customer	P&A	166,461	86,889	24,528	28,109	21,240	5,695	54%
- Commodity	-	-	-	-	-	-	-	0%
Total	!	306,151	159,804	45,111	51,697	39,065	10,474	
377.0 Compressor Station Equipment - DP		-						DEM
- Demand	P&A	-	-	-	_	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
378.0 Meas. & Reg. Sta. Eq-General		36,964						DEM
- Demand	P&A	36,964	19,294	5,447	6,242	4,717	1,265	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		36,964	19,294	5,447	6,242	4,717	1,265	
379.0 Meas. & Reg City Gate		24,821						DEM
- Demand	P&A	24,821	12,956	3,657	4,191	3,167	849	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Гotal		24,821	12,956	3,657	4,191	3,167	849	
380.0 Services		700,168						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	SV	700,168	563,040	81,052	49,686	5,446	944	100%
- Commodity	-	-	-	-	-	-	-	0%
Total		700,168	563,040	81,052	49,686	5,446	944	

iberty Utilities (NEMO) Allocation of Depreciation and Amortization	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
381.0 Meters		68,151						CUS
		-	_	_	_		_	
- Demand						-		0%
- Customer- Commodity	MI	68,151 -	40,606	8,317	16,812 -	2,041	376	100% 0%
Fotal	-	68,151	40,606	8,317	16,812	2,041	376	076
882.0 Meter Installations		94,257						CUS
- Demand	_	-			_		-	0%
			- F6 160	- 11 502		- 2 222	-	
- Customer- Commodity	MI -	94,257 -	56,160 -	11,503	23,252	2,822	520	100% 0%
- commounty Total	-	94,257	56,160	11,503	23,252	2,822	520	0%
otai		94,257	36,160	11,505	23,232	2,022	320	
83.0 House Regulators		29,780						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	R	29,780	14,938	6,665	7,144	856	176	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		29,780	14,938	6,665	7,144	856	176	
84.0 House Regulators Installations		3,125						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	R	3,125	1,567	699	750	90	18	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		3,125	1,567	699	750	90	18	
85.0 Ind. Meas. & Reg. Sta. Equip		2,096						CUS
- Demand	-	-	-	-	-	_	-	0%
- Customer	MIL	2,096	-	-	_	1,770	326	100%
- Commodity	_	-	-	-	_	-	_	0%
otal		2,096	-	-	-	1,770	326	
87.0 Other Equipment - DP		_						DP
- Demand	DP_D		_	_	_	_		29%
- Customer	DP_C	-	_	_	- -	_	_	71%
- Commodity	D1_0	-	_	_	-	_	_	0%
otal		-	-	-	-	-	-	070
otal Distribution Plant		1,434,254						
- Demand		278,177	145,203	40,989	46,973	35,495	9,517	
- Customer		1,156,077	811,386	40,989 146,307	46,973 141,269	35,495 45,932	9,517 11,182	
- Customer - Commodity		1,130,077	811,386	146,307	141,269	43,332	-	
- Commounty		-		-				

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

Liberty Utilities (NEMO)				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
General Plant Expense								
389.0 Land & Land Rights		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total	•	-	-	-	-	-	-	
390.0 Structures & Improvements		78,883						T&D
- Demand	T&D_D	24,318	12,694	3,583	4,106	3,103	832	31%
- Customer	T&D_C	54,564	34,733	7,232	8,141	3,554	905	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		78,883	47,427	10,815	12,248	6,657	1,737	
390.1 Structures - Frame		1,075						T&D
- Demand	T&D_D	331	173	49	56	42	11	31%
- Customer	T&D_C	744	473	99	111	48	12	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		1,075	646	147	167	91	24	
390.2 General - Improvements								T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
390.3 Improvements		1,537						T&D
- Demand	T&D_D	474	247	70	80	60	16	31%
- Customer	T&D_C	1,063	677	141	159	69	18	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		1,537	924	211	239	130	34	
391.0 Office Furniture & Equipment		26,705						T&D
- Demand	T&D_D	8,233	4,297	1,213	1,390	1,051	282	31%
- Customer	T&D_C	18,472	11,759	2,448	2,756	1,203	306	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		26,705	16,056	3,661	4,146	2,254	588	

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large		
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
392.0 Transportation Equipment	_	2,071					Г	T&D
- Demand	T&D_D	639	333	94	108	81	22	31%
- Customer	T&D_C	1,433	912	190	214	93	24	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		2,071	1,245	284	322	175	46	
392.1 Transportation Equipment<12		57,781					Ī	T&D
- Demand	T&D_D	17,813	9,298	2,625	3,008	2,273	609	31%
- Customer	T&D_C	39,968	25,441	5,297	5,963	2,603	663	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		57,781	34,739	7,922	8,971	4,876	1,272	
393.0 Stores Equipment - GP		-					Ī	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
394.0 Tools, Shop, & Garage Equip.		11,919					Ī	T&D
- Demand	T&D_D	3,674	1,918	541	620	469	126	31%
- Customer	T&D_C	8,244	5,248	1,093	1,230	537	137	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		11,919	7,166	1,634	1,851	1,006	262	
395.0 Laboratory Equipment - GP		-					Ī	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Fotal	<u> </u>	-	-	-	-	-	-	
396.0 Power Operated Equipment - GP		1,681					Г	T&D
- Demand	T&D_D	518	270	76	88	66	18	31%
- Customer	T&D_C	1,163	740	154	173	76	19	69%
- Commodity		-,	-	-	-	-	-	0%
Total		1,681	1,011	230	261	142	37	

TAB NAME: Alloc Depre Exp

Liberty Utilities (NEMO)			m 11 11 1	Small	Medium	Large	-	ol
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
396.1 Ditchers		<u>-</u> _					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
396.2 Backhoes		2,315					ſ	T&D
- Demand	T&D_D	714	372	105	120	91	24	31%
- Customer	T&D_C	1,601	1,019	212	239	104	27	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		2,315	1,392	317	359	195	51	
396.3 Ditches - Group		-					1	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Гotal		-	-	-	-	-	-	
397 Communication Equipment		1,045					1	T&D
- Demand	T&D_D	322	168	47	54	41	11	31%
- Customer	T&D_C	723	460	96	108	47	12	69%
- Commodity	-	-	-	-	-	-	-	0%
Гotal		1,045	628	143	162	88	23	
397.2 Comm. Equip Fixed Radios		134					Г	T&D
- Demand	T&D_D	41	21	6	7	5	1	31%
- Customer	T&D_C	92	59	12	14	6	2	69%
- Commodity	-	-	-	-	-	-	-	0%
Fotal		134	80	18	21	11	3	
397.3 Communication Equip - Telemetering		-					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-						-	0%
Total		-	-	-	-	-	-	
397.5 Communication Equipment		-					Г	T&D
- Demand	T&D_D	=	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
rotal		-	-	-	-	-	-	

<u>.iberty Utilities (NEMO)</u>				Small	Medium	Large		
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
98.0 Miscellaneous Equipment	_	10,604					Г	T&D
- Demand	T&D_D	3,269	1,706	482	552	417	112	31%
- Customer	T&D_C	7,335	4,669	972	1,094	478	122	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		10,604	6,375	1,454	1,646	895	233	
99.0 OTH-Other Tangible Property		6,757					Г	T&D
- Demand	T&D_D	2,083	1,087	307	352	266	71	31%
- Customer	T&D_C	4,674	2,975	619	697	304	78	69%
- Commodity	_	- -	-	-	-	-	-	0%
otal		6,757	4,062	926	1,049	570	149	
399.1 OTH-Oth Tang Prop - Servers - H/W		1,477					Г	T&D
- Demand	T&D_D	455	238	67	77	58	16	31%
- Customer	T&D_C	1,022	651	135	152	67	17	69%
- Commodity		-	-	-	-	-	-	0%
otal		1,477	888	203	229	125	33	
399.3 Oth Tang Prop - Network H/W		18,230						T&D
- Demand	T&D_D	5,620	2,933	828	949	717	192	31%
- Customer	T&D_C	12,610	8,027	1,671	1,881	821	209	69%
- Commodity	-	-	-	-	-	-	-	0%
otal	-	18,230	10,960	2,499	2,830	1,538	401	
99.4 Oth Tang Prop - PC Hardward		142,941						T&D
- Demand	T&D_D	44,067	23,002	6,493	7,441	5,623	1,508	31%
- Customer	T&D_C	98,874	62,938	13,104	14,753	6,440	1,640	69%
- Commodity	-	-	-	-	-	-	-	0%
-otal	-	142,941	85,940	19,597	22,194	12,062	3,148	
399.5 Oth Tang Prop - PC Software		621,189					Г	T&D
- Demand	T&D_D	191,504	99,961	28,218	32,337	24,436	6,552	31%
- Customer	T&D_C	429,686	273,516	56,947	64,111	27,985	7,127	69%
- Commodity		-	-	-	-	-	-	0%
rotal		621,189	373,477	85,165	96,448	52,421	13,678	
Total General Plant		986,344						
- Demand	-	304,075	158,721	44,805	51,346	38,800	10,403	
- Customer		682,269	434,297	90,423	101,798	44,436	11,316	
- Commodity		-	-	-	-	-	-	
•	_	986,344	593,018	135,228	153,144	83,236	21,719	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

TAB NAME: Alloc Depre Exp

Liberty Utilities (NEMO)				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
AD Not Reflected in Subledger	<u> </u>							T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Proforma Adjustments								
AMR Addition		68,336						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	68,336	40,716	8,339	16,858	2,046	377	100%
- Commodity	-	-	-	-	-	-	-	0%
Total		68,336	40,716	8,339	16,858	2,046	377	
/ehicle Additions		-					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
PVC & Steel Mains Replacement		7,440						DISMAIN
- Demand	P&A	3,395	1,772	500	573	433	116	46%
- Customer	P&A	4,045	2,112	596	683	516	138	54%
- Commodity	-	-	-	-	-	-	-	0%
Fotal		7,440	3,884	1,096	1,256	949	255	
Kirksville Shop		5,620					Ī	T&D
- Demand	T&D_D	1,733	904	255	293	221	59	31%
- Customer	T&D_C	3,887	2,475	515	580	253	64	69%
- Commodity	_	-	-	-	-	-	-	0%
otal		5,620	3,379	771	873	474	124	
Rate Case Expense		125,656					Г	T&D
- Demand	T&D_D	38,738	20,220	5,708	6,541	4,943	1,325	31%
- Customer	T&D_C	86,918	55,327	11,519	12,969	5,661	1,442	69%
- Commodity	-	-	-	-	-	-,	-	0%
Fotal		125,656	75,548	17,227	19,510	10,604	2,767	-,-

TAB NAME: Alloc Depre Exp

Liberty Utilities (NEMO) Allocation of Depreciation and Amortization	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
							_	
Merit Increases		3,209						T&D
- Demand	T&D_D	989	516	146	167	126	34	31%
- Customer	T&D_C	2,220	1,413	294	331	145	37	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		3,209	1,930	440	498	271	71	
Vacant Positions		2,709						T&D
- Demand	T&D_D	835	436	123	141	107	29	31%
- Customer	T&D_C	1,874	1,193	248	280	122	31	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		2,709	1,629	371	421	229	60	
CAM Adjustments		(4,206)						T&D
- Demand	T&D_D	(1,297)	(677)	(191)	(219)	(165)	(44)	31%
- Customer	T&D_C	(2,909)	(1,852)	(386)	(434)	(189)	(48)	69%
- Commodity		-	-	-	-	-	-	0%
Total		(4,206)	(2,529)	(577)	(653)	(355)	(93)	
Depreciation Study		529,640						T&D
- Demand	T&D_D	163,280	85,229	24,059	27,572	20,835	5,586	31%
- Customer	T&D_C	366,360	233,205	48,555	54,663	23,861	6,076	69%
- Commodity		-	-	-	-	-	-	0%
Total		529,640	318,434	72,614	82,234	44,695	11,663	
EE Reg Asset Adjustment		14,479						OM(F)
- Demand	OM(F)_D	1,753	915	258	296	224	60	12%
- Customer	OM(F) C	12,581	10,096	1,323	771	312	79	87%
- Commodity	OM(F)_E	145	67	19	26	26	6	1%
Total	- · · · / <u>-</u> -	14,479	11,078	1,601	1,093	561	146	
Total Proforma Adjustments		752,883						
- Demand		209,426	109,316	30,858	35,364	26,723	7,165	
- Customer		543,312	344,685	71,005	86,700	32,726	8,197	
- Commodity		145	67	19	26	26	6	
Total	_	752,883	454,068	101,883	122,090	59,475	15,368	

Liberty Utilities (NEMO Region) **Cost of Service Study**

12 Months Ending June 30, 2017

Liberty Utilities (NEMO) Allocation of Depreciation and Amortization	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
Amortization - Regulatory Asset		3,350						OM(F)
- Demand	OM(F)_D	406	212	60	68	52	14	12%
- Customer	OM(F)_C	2,911	2,336	306	178	72	18	87%
- Commodity	OM(F)_E	33	15	4	6	6	1	1%
Total		3,350	2,563	370	253	130	34	
Total Depreciation and Amortization	<u></u>	3,199,253						
- Demand		814,507	425,156	120,016	137,538	103,931	27,866	
- Customer		2,384,569	1,592,704	308,041	329,945	123,166	30,713	
- Commodity		178	82	24	32	32	8	
Total		3,199,253	2,017,942	428,080	467,515	227,129	58,587	

<u>Liberty Utilities (NEMO)</u>				Small	Medium	Large		
Allocation of Taxes Other Than Income	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Social Security Taxes/Employee Benefit (FICA)	_	109,182					Г	OT
- Demand	OT_D	28,549	14,902	4,207	4,821	3,643	977	26%
- Customer	OT_C	80,360	54,486	10,101	10,224	4,424	1,126	74%
- Commodity	OT_E	273	126	37	50	48	12	0%
Total		109,182	69,514	14,344	15,094	8,115	2,115	
Federal Unemployment	_	958					Г	OT
- Demand	OT_D	251	131	37	42	32	9	26%
- Customer	OT_C	705	478	89	90	39	10	74%
- Commodity	OT_E	2	1	0	0	0	0	0%
Total		958	610	126	132	71	19	
State Unemployment	_	2,997					Г	OT
- Demand	OT_D	784	409	115	132	100	27	26%
- Customer	OT_C	2,206	1,496	277	281	121	31	74%
- Commodity	OT_E	7	3	1	1	1	0	0%
Total		2,997	1,908	394	414	223	58	
Allocated Taxes Other	_	18,811						OT
- Demand	OT_D	4,919	2,568	725	831	628	168	26%
- Customer	OT_C	13,845	9,387	1,740	1,761	762	194	74%
- Commodity	OT_E	47	22	6	9	8	2	0%
Total		18,811	11,977	2,471	2,601	1,398	364	
Ad Valorem	_	753,563					Г	TOTPLT
- Demand	Plant_Total_D	228,421	119,231	33,657	38,571	29,146	7,815	30%
- Customer	Plant_Total_C	525,142	333,411	69,479	79,832	33,831	8,589	70%
- Commodity		-	-	-	-	-	-	0%
Total		753,563	452,642	103,136	118,403	62,978	16,403	
Proforma Adjustments TOTI	_	(55,165)					Г	ОТ
- Demand	OT_D	(14,425)	(7,529)	(2,125)	(2,436)	(1,841)	(494)	26%
- Customer	OT_C	(40,602)	(27,529)	(5,103)	(5,166)	(2,235)	(569)	74%
- Commodity	OT_E	(138)	(64)	(19)	(25)	(24)	(6)	0%
Total		(55,165)	(35,122)	(7,247)	(7,626)	(4,100)	(1,069)	
Total Taxes Other Than Income		830,347						
- Demand		248,498	129,711	36,616	41,962	31,708	8,502	
- Customer		581,657	371,729	76,582	87,022	36,942	9,381	
- Commodity		192	89	26	35	34	8	
Total		830,347	501,529	113,224	129,018	68,685	17,891	

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

Cost of Service Study 12 Months Ending June 30, 2017

Liberty Utilities (NEMO) Allocation of Income Taxes	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN
Income Tax Calculation							
Operating Revenues		11,043,348	7,405,217	1,037,243	1,613,736	811,828	175,322
Operating Expenses							
O&M Expenses		4,600,004	3,519,377	508,625	347,371	178,368	46,263
Depreciation & Amortization		3,199,253	2,017,942	428,080	467,515	227,129	58,587
Taxes Other than Income		830,347	501,529	113,224	129,018	68,685	17,891
Interest on Customer Deposits	CD	31,699	27,433	3,686	580	-	-
Total Expenses excl. Income Taxes	_	8,661,302	6,066,280	1,053,615	944,485	474,181	122,741
Net Income before Taxes & Interest		2,382,045	1,338,937	(16,372)	669,252	337,647	52,582
Less:							
Interest Expense	RB _	920,750	551,013.97	126,144.48	150,548.78	73,074.93	19,967.55
Net Income Before Taxes		1,461,296	787,923	(142,516)	518,703	264,572	32,614
State Taxable Income		1,461,296	787,923	(142,516)	518,703	264,572	32,614
State Taxable Income		1,461,296	787,923	(142,516)	518,703	264,572	32,614
Missouri State Income Tax	5.21%	76,182	41,077	(7,430)	27,042	13,793	1,700
Federal Taxable Income		1,461,296	787,923	(142,516)	518,703	264,572	32,614
Federal Income Tax	33.18%	484,789	261,396	(47,280)	172,081	87,773	10,820
Total Income Tax		560,971	302,473	(54,710)	199,123	101,565	12,520
State Income Tax		76,182	41,077	(7,430)	27,042	13,793	1,700
Federal Income Tax		484,789	261,396	(47,280)	172,081	87,773	10,820
Calculated Income Tax	_	560,971	302,473	(54,710)	199,123	101,565	12,520
Actual Income Taxes		560,971	302,473	(54,710)	199,123	101,565	12,520

Cost of Service Study 12 Months Ending June 30, 2017

<u>Liberty Utilities (NEMO)</u> Summary of Allocators	Description	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN
External Allocators							
В	No. of Bills	100.00%	86.45%	11.61%	1.83%	0.10%	0.01%
CD	Customer Deposits	100.00%	86.54%	11.63%	1.83%	0.00%	0.00%
MQ	Meter Quantity	100.00%	86.14%	11.86%	1.89%	0.09%	0.01%
MI	Meters Investment	100.00%	59.58%	12.20%	24.67%	2.99%	0.55%
R	Regulators	100.00%	50.16%	22.38%	23.99%	2.87%	0.59%
SV	Services	100.00%	80.42%	11.58%	7.10%	0.78%	0.13%
M&R	Meters & Regulators	100.00%	61.48%	13.10%	22.24%	2.67%	0.50%
MRS	Meters, Regulators, Services	100.00%	74.89%	12.02%	11.52%	1.33%	0.24%
903Expense	Account 903 Allocator	100.00%	86.83%	11.25%	1.79%	0.11%	0.01%
904Expense	Account 904 Allocator	100.00%	98.07%	0.55%	0.86%	0.43%	0.09%
MIL	Meter Investment Large	100.00%	0.00%	0.00%	0.00%	84.45%	15.55%
AV	Annual Volume	100.00%	46.20%	13.44%	18.25%	17.78%	4.33%
P(S)	Peak Sales Factor (excl. Transportation)	100.00%	59.98%	18.01%	15.62%	3.00%	3.39%
P(L)	Peak Factor (Large)	100.00%	0.00%	0.00%	0.00%	46.99%	53.01%
P&A W	P&A Winter Sales	100.00%	59.00%	17.13%	16.19%	3.73%	3.95%
P&A	Peak and Average Allocator	100.00%	52.20%	14.73%	16.89%	12.76%	3.42%
CWC	Cash Working Capital Factor	100.00%	62.95%	13.56%	14.44%	6.42%	2.63%
Internal Allocators							
T&D_D	Transmission & Distribution Plant	100.00%	52.20%	14.73%	16.89%	12.76%	3.42%
T&D_C	L	100.00%	63.65%	13.25%	14.92%	6.51%	1.66%
DP_D	Distribution Plant (excl. 374-375, 387)	100.00%	52.20%	14.73%	16.89%	12.76%	3.42%
DP_C	, , , , ,	100.00%	63.65%	13.25%	14.92%	6.51%	1.66%
MS_D	Mains & Services	100.00%	52.20%	14.73%	16.89%	12.76%	3.42%
MS_C		100.00%	65.08%	13.29%	12.42%	7.29%	1.92%

FILE NAME: Liberty (NEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Allocators

<u>Liberty Utilities (NEMO)</u> Summary of Allocators	Description	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN
	Description	company	1.5	363	Mes	203	
RB	Rate Base	100.00%	59.84%	13.70%	16.35%	7.94%	2.17%
Plant_Total_D	Total Plant	100.00%	52.20%	14.73%	16.89%	12.76%	3.42%
Plant_Total_C		100.00%	63.49%	13.23%	15.20%	6.44%	1.64%
Oper_D	O&M Accounts 871-879	100.00%	52.20%	14.73%	16.89%	12.76%	3.42%
Oper_C		100.00%	64.49%	13.26%	14.03%	6.53%	1.69%
Oper_E		100.00%	46.20%	13.44%	18.25%	17.78%	4.33%
EXP_902-904_C	Account 902-904 Expenses	100.00%	89.50%	8.71%	1.58%	0.18%	0.03%
OM(F)_D	Functional O&M Expenses	100.00%	52.20%	14.73%	16.89%	12.76%	3.42%
OM(F)_C	runctional Oxivi Expenses	100.00%	80.24%	10.52%	6.13%	2.48%	0.63%
OM(F)_E		100.00%	46.20%	13.44%	18.25%	17.78%	4.33%
OT_D	Other Taxes (75% T&D, 25% OM)	100.00%	52.20%	14.73%	16.89%	12.76%	3.42%
OT_C		100.00%	67.80%	12.57%	12.72%	5.50%	1.40%
OT_E		100.00%	46.20%	13.44%	18.25%	17.78%	4.33%
Derivation of Ext. Allocator B_INPUT	rs	18,195	15,729	2,113	332	18	2
B_INFOT		100.00%	86.45%	11.61%	1.83%	0.10%	0.01%
CD_INPUT		18,175 \$	15,729 \$	2,113 \$	332		
		100.00%	86.54%	11.63%	1.83%	0.00%	0.00%
MQ_INPUT		17,416 \$	15,003 \$	2,066 \$	330 \$	15	\$ 2
		100.00%	86.14%	11.86%	1.89%	0.09%	0.01%
MI_INPUT		3,222,306 \$	1,919,913 \$	393,236 \$	794,897 \$	96,489	\$ 17,771
		100.00%	59.58%	12.20%	24.67%	2.99%	0.55%
R_INPUT		599,743 \$	300,836 \$	134,236 \$	143,884 \$	17,240	
		100.00%	50.16%	22.38%	23.99%	2.87%	0.59%

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TAB NAME: Allocators

<u>Liberty Utilities (NEMO)</u> Summary of Allocators		Total		Residential	Small General Srv		Medium General Srv		Large General Srv		- Interruptible
	Description	Company		RS	SGS		MGS		LGS		IN
SV_INPUT		14,995,849	\$	12,058,918	\$ 1,735,926	\$	1,064,142	\$	116,646	\$	20,217
_		100.00%	•	80.42%	11.58%	•	7.10%	•	0.78%	•	0.13%
M&R INPUT		6,176,454	\$	3,797,575	\$ 809,291	\$	1,373,917	\$	165,056	\$	30,615
_		100.00%		61.48%	13.10%		22.24%		2.67%		0.50%
MRS_INPUT		21,172,303		15,856,493	2,545,217		2,438,059		281,703		50,832
		100.00%		74.89%	12.02%		11.52%		1.33%		0.24%
903Expense_INPUT		637,940	\$	553,948	\$ 71,759	\$	11,451	\$	694	\$	87
		100.00%		86.83%	11.25%		1.79%		0.11%		0.01%
904Expense_INPUT		210,635	\$	206,573	\$ 1,162	\$	1,808	\$	896	\$	196
		100.00%		98.07%	0.55%		0.86%		0.43%		0.09%
MIL_INPUT		114,261						\$	96,489	\$	17,771
		100.00%		0.00%	0.00%		0.00%		84.45%		15.55%
AV_INPUT		24,336,983		11,243,129	3,270,045		4,440,882		4,328,322		1,054,605
		100.00%		46.20%	13.44%		18.25%		17.78%		4.33%
P(L)_INPUT		263,641							123,895		139,746
		100.00%	_	0.00%	0.00%	_	0.00%		46.99%		53.01%
P(S)_INPUT		4,123,190		2,473,140	742,501		643,908		123,895		139,746
		100.00%		59.98%	18.01%	_	15.62%		3.00%		3.39%

TAB NAME: Allocators

<u>Liberty Utilities (NEMO)</u> Summary of Allocators Description	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN
P&A W INPUT						
Peak Month Sales (excl. transportation)	4,123,190	2,473,140	742,501	643,908	123,895	139,746
Winter Volumes (excl. transportation)	17,378,041	10,082,074	2,823,546	2,914,084	775,930	782,407
	100.00%	59.00%	17.13%	16.19%	3.73%	3.95%
P&A_INPUT	100.00%	52.20%	14.73%	16.89%	12.76%	3.42%
	100.00%	52.20%	14.73%	16.89%	12.76%	3.42%
CWC INPUT						
Annual Sales Volume	100.00%	54.78%	15.85%	19.13%	5.10%	5.14%
OM(F)_Total	100.00%	76.51%	11.06%	7.55%	3.88%	1.01%
Other Taxes	100.00%	60.40%	13.64%	15.54%	8.27%	2.15%
T&D_Total	100.00%	60.12%	13.71%	15.53%	8.44%	2.20%
	100.00%	62.95%	13.56%	14.44%	6.42%	2.63%

Summary of Classifiers Classifier Description	Classifier Code	Total	- Demand	- Customer	- Commodity
Classifier Description	Classifier Code	IOtal	- Demand	- Customer	- Commounty
Classifiers					
Customer Factor	cus	100.00%	0.00%	100.00%	0.00%
Demand Factor	DEM	100.00%	100.00%	0.00%	0.00%
Commodity Factor	СОМ	100.00%	0.00%	0.00%	100.00%
Distribution Mains Factor	DISMAIN	100.00%	45.63%	54.37%	0.00%
T&D Factor	T&D	100.00%	30.83%	69.17%	0.00%
Distribution Plant Factor	DP	100.00%	29.18%	70.82%	0.00%
Mains and Services Factor	MAINSVC	100.00%	31.32%	68.68%	0.00%
Total Plant Factor	TOTPLT	100.00%	30.31%	69.69%	0.00%
Accounts 871-879 Factor (OPER)	OPER	100.00%	27.19%	70.57%	2.24%
Functional O&M Classifier	OM(F)	100.00%	12.11%	86.89%	1.00%
Cash Working Capital	CWC	100.00%	17.27%	57.42%	25.31%
Other Taxes Classifier	ОТ	100.00%	26.15%	73.60%	0.25%
Derivations					
376 Distribution Mains					
370 Distribution Mains	_			54.37%	0.00%

<u>Liberty Utilities (SEMO)</u>			Small	Medium	Large	-
COSS Summary	Total	Residential	General Srv	General Srv	General Srv	Interruptible
	Company	RS	SGS	MGS	LGS	IN
Current Delivery Service Rates						
Rate base	50,591,558	30,402,228	5,928,034	8,127,752	5,696,397	437,147
Net operating income	1,041,659	(179,353)	(168,593)	501,488	845,497	42,620
Rate of return	2.06%	-0.59%	-2.84%	6.17%	14.84%	9.75%
Relative rate of return	100%	-29%	-138%	300%	721%	474%
Revenues	\$ 12,885,046 \$	7,606,347 \$	945,237	\$ 1,935,198	\$ 2,269,512	\$ 128,752
Test Period Usage (CCF)	36,783,781	16,044,302	4,025,648	5,206,401	10,955,357	552,074
Revenue per CCF	\$ 0.3503 \$	0.4741 \$	0.2348	\$ 0.3717	\$ 0.2072	\$ 0.2332
Revenues at Equalized Rates of Return						
Rate of return	7.640%	7.640%	7.640%	7.640%	7.640%	7.640%
Return requirement	3,865,195	2,322,730	452,902	620,960	435,205	33,398
Revenue required	17,467,860	11,667,419	1,953,970	2,129,111	1,603,577	113,784
Revenue deficiency	4,582,814	4,061,072	1,008,733	193,913	(665,935)	(14,968)
Percent increase required	35.6%	53.4%	106.7%	10.0%	-29.3%	-11.6%
Test Period Usage (CCF)	36,783,781	16,044,302	4,025,648	5,206,401	10,955,357	552,074
Revenue Required per CCF	\$ 0.4749 \$	0.7272 \$	0.4854	\$ 0.4089	\$ 0.1464	\$ 0.2061
Revenue Deficiency per CCF	\$ 0.1246 \$	0.2531 \$	0.2506	\$ 0.0372	\$ (0.0608)	\$ (0.0271)
	Revenue Require	ements				
Rate Class	Class ROR	Overall ROR				

	Revenue Requir	ements
Rate Class	Class ROR	Overall ROR
Residential	-0.59%	2.06%
Small GS	-2.84%	2.06%
Medium GS	6.17%	2.06%
Large GS	14.84%	2.06%
Interruptible	9.75%	2.06%

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: COSS Summary

Cost of Service Study 12 Months Ending June 30, 2017

Liberty Utilities (SEMO) COSS Summary	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN
Current Rate of Return	2.06%	-0.59%	-2.84%	6.17%	14.84%	9.75%
Proposed Rate of Return	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%
EROR Revenues Current Revenues	\$ 17,467,861 12,885,046	\$ 11,667,419 7,606,347	\$ 1,953,970 945,237	\$ 2,129,111 1,935,198	\$ 1,603,577 2,269,512	\$ 113,784 128,752
Difference % Difference	\$ 4,582,815 35.57%	\$ 4,061,072 53.39%	\$ 1,008,733 106.72%	\$ 193,913 10.02%	\$ (665,935) -29.34%	\$ (14,968) -11.63%
Derivation of Delivery Revenues						
Current Total Revenues	\$ 12,885,046	7,606,347	945,237	1,935,198	2,269,512	128,752
Add: Economic Development Discount	(141,867)	(83,744)	(10,408)	(21,308)	(24,990)	(1,418)
Less: ISRS Reconciliation	2,617	1,909	127	260	305	17
Less: Special Contract	117,097	69,122	8,591	17,588	20,626	1,170
Less: Misc Other Revenues (Acct 488)	 208,195	 122,896	 15,274	 31,271	 36,673	 2,081
Current Delivery Revenues	\$ 12,699,004	\$ 7,496,163	\$ 931,653	\$ 1,907,388	\$ 2,236,898	\$ 126,902
Total Revenues at EROR	\$ 17,467,861	11,667,419	1,953,970	2,129,111	1,603,577	113,784
Add: Economic Development Discount	(141,867)	(83,744)	(10,408)	(21,308)	(24,990)	(1,418)
Less: ISRS Reconciliation	2,617	1,909	127	260	305	17
Less: Special Contract	117,097	69,122	8,591	17,588	20,626	1,170
Less: Misc Other Revenues (Acct 488)	 208,195	 122,896	 15,274	 31,271	 36,673	 2,081
Delivery Revenues at EROR	\$ 17,281,819	\$ 11,557,235	\$ 1,940,386	\$ 2,101,301	\$ 1,570,963	\$ 111,934
Metrics						
Delivery Revenues at EROR	17,281,819	11,557,235	1,940,386	2,101,301	1,570,963	111,934
Test Period Usage (CCF)	36,783,781	16,044,302	4,025,648	5,206,401	10,955,357	552,074
Test Period Customers	31,356	27,469	3,324	528	31	3
Revenue requirement per CCF		\$ 0.72	\$ 0.48	\$ 0.40	\$ 0.14	\$ 0.20
Revenue requirement per Customer		\$ 421	\$ 584	\$ 3,978	\$ 50,676	\$ 32,761

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: COSS Summary

<u>Liberty Utilities (SEMO)</u>			Small	Medium	Large	-
Development of Rate of Return	Total	Residential	General Srv	General Srv	General Srv	Interruptible
	Company	RS	SGS	MGS	LGS	IN
Rate Base						
Gas Plant in Service						
- Demand	26,317,787	13,314,486	3,382,084	3,696,374	5,620,721	304,122
- Customer	56,138,360	35,576,488	6,368,072	8,958,574	4,815,428	419,797
- Commodity	-	-	-	-	-	-
Total	82,456,146	48,890,975	9,750,156	12,654,948	10,436,149	723,919
less: Depreciation & Amortization						
- Demand	(9,911,853)	(5,014,526)	(1,273,766)	(1,392,135)	(2,116,886)	(114,539)
- Customer	(10,859,532)	(6,715,672)	(1,309,798)	(1,612,954)	(1,130,705)	(90,402)
- Commodity	-	-	-	-	-	-
Total	(20,771,385)	(11,730,198)	(2,583,565)	(3,005,089)	(3,247,591)	(204,941)
Net Utility Plant in Service						
- Demand	16,405,934	8,299,960	2,108,317	2,304,239	3,503,835	189,583
- Customer	45,278,828	28,860,816	5,058,274	7,345,620	3,684,723	329,395
- Commodity	· · · · · -	· · ·	· · ·	-	-	-
Total	61,684,762	37,160,776	7,166,591	9,649,859	7,188,558	518,978
Additions to Rate Base						
- Demand	71,324	42,410	8,808	9,674	9,668	764
- Customer	354,387	259,765	38,641	32,217	21,739	2,025
- Commodity	1,927,508	1,228,618	298,086	280,141	95,233	25,428
Total	2,353,220	1,530,794	345,535	322,032	126,641	28,217
Reductions to Rate Base						
- Demand	(4,166,033)	(2,107,646)	(535,374)	(585,126)	(889,745)	(48,142)
- Customer	(9,280,390)	(6,181,696)	(1,048,718)	(1,259,013)	(729,057)	(61,907)
- Commodity	-	-	-	-	-	-
Total	(13,446,423)	(8,289,342)	(1,584,092)	(1,844,139)	(1,618,802)	(110,048)
Rate Base						
- Demand	12,311,225	6,234,724	1,581,751	1,728,787	2,623,759	142,205
- Customer	36,352,825	22,938,886	4,048,197	6,118,824	2,977,405	269,513
- Commodity	1,927,508	1,228,618	298,086	280,141	95,233	25,428
Total	50,591,558	30,402,228	5,928,034	8,127,752	5,696,397	437,147

Cost of Service Study 12 Months Ending June 30, 2017

Liberty Utilities (SEMO)			Small	Medium	Large	-
Development of Rate of Return	Total	Residential	General Srv	General Srv	General Srv	Interruptible
	Company	RS	SGS	MGS	LGS	IN
Return Calculation						
Customer sales	12,699,004	7,496,163	931,653	1 007 200	2,236,898	126,902
Less: Economic Development Discount	(141,867)	(83,744)	(10,408)	1,907,388 (21,308)	(24,990)	•
Add: ISRS Reconciliation	2,617	1,909	127	260	(24,990)	(1,418 17
Add: Special Contract	117,097	69,122	8,591	17,588	20,626	1,170
Add: Misc Other Revenues (Acct 488)	208,195	122,896	15,274	31,271	36,673	2,081
Total	12,885,046	7,606,347	945,237	1,935,198	2,269,512	128,752
less: O&M Expense						
- Demand	687,139	347,632	88,304	96,510	146,753	7,940
- Customer	5,881,290	4,708,665	590,550	354,589	213,335	14,151
- Commodity	51,250	22,354	5,609	7,254	15,264	769
Total	6,619,679	5,078,651	684,463	458,353	375,352	22,861
Depreciation and Amortization Expense						
- Demand	1,249,388	632,081	160,558	175,479	266,833	14,438
- Customer	3,021,485	1,984,523	338,776	460,420	217,446	20,320
- Commodity	191	83	21	27	57	3
Total	4,271,065	2,616,687	499,355	635,926	484,336	34,761
Taxes other than income						
- Demand	288,661	146,037	37,096	40,543	61,650	3,336
- Customer	660,764	430,449	74,194	97,397	54,096	4,628
- Commodity	711	310	78	101	212	11
Taxes other than income	950,136	576,797	111,367	138,040	115,957	7,974
Interest on customer deposits	50,119	43,955	5,319	845	-	-
Income taxes	(47,612)	(530,389)	(186,675)	200,546	448,370	20,536
Total Operating Expenses	11,843,387	7,785,700	1,113,830	1,433,710	1,424,015	86,132
Net Operating Income	1,041,659	(179,353)	(168,593)	501,488	845,497	42,620
After Tax Rate of return	2.06%	-0.59%	-2.84%	6.17%	14.84%	9.75% 4.735
After Tax Rate of return Relative rate of return	2.06% 1.000	-0.59% (0.287)	-2.84% (1.381)	6.17% 2.997	14.84% 7.209	

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Liberty Utilities (SEMO)			Small	Medium	Large	
Summary of Rate of Return	Total	Residential	General Srv	General Srv	General Srv	Interruptible
,	Company	RS	SGS	MGS	LGS	IN
Rate Base						
Gas Plant in Service	82,456,146	48,890,975	9,750,156	12,654,948	10,436,149	723,919
less: Depreciation	(20,771,385)	(11,730,198)	(2,583,565)	(3,005,089)	(3,247,591)	(204,941)
Net Utility Plant in Service	61,684,762	37,160,776	7,166,591	9,649,859	7,188,558	518,978
Add:						
Storage Gas	1,859,482	1,185,471	289,880	271,067	88,344	24,721
Prepaid Expenses	135,706	104,114	14,032	9,396	7,695	469
Cash Working Capital	262,399	167,839	31,736	34,947	25,179	2,698
Regulatory Asset - Energy Efficiency	95,632	73,370	9,888	6,622	5,423	330
Total	2,353,220	1,530,794	345,535	322,032	126,641	28,217
Less:						
Accumulated Deferred Income Taxes	(8,392,884)	(4,975,685)	(997,599)	(1,243,067)	(1,101,608)	(74,926)
Rate Base Offset	(3,905,316)	(2,315,250)	(464,196)	(578,415)	(512,592)	(34,864)
Customer Deposits	(1,113,765)	(976,775)	(118,209)	(18,781)	-	-
Customer Advances	(34,457)	(21,632)	(4,088)	(3,876)	(4,602)	(259)
Total	(13,446,423)	(8,289,342)	(1,584,092)	(1,844,139)	(1,618,802)	(110,048)
Rate Base	50,591,558	30,402,228	5,928,034	8,127,752	5,696,397	437,147
Return Calculation						
Delivery Revenues	12,699,004	7,496,163	931,653	1,907,388	2,236,898	126,902
Less: Economic Development Discount	(141,867)	(83,744)	(10,408)	(21,308)	(24,990)	(1,418)
Add: ISRS Reconciliation	2,617	1,909	127	260	305	17
Add: Special Contract	117,097	69,122	8,591	17,588	20,626	1,170
Add: Misc Other Revenues (Acct 488)	208,195	122,896	15,274	31,271	36,673	2,081
Total Revenues	12,885,046	7,606,347	945,237	1,935,198	2,269,512	128,752
less:						
O&M Expense	6,619,679	5,078,651	684,463	458,353	375,352	22,861
Depreciation Expense	4,271,065	2,616,687	499,355	635,926	484,336	34,761
Taxes other than income	950,136	576,797	111,367	138,040	115,957	7,974
Interest on customer deposits	50,119	43,955	5,319	845	-	-
Income taxes	(47,612)	(530,389)	(186,675)	200,546	448,370	20,536
Total Operating Expenses	11,843,387	7,785,700	1,113,830	1,433,710	1,424,015	86,132
Net Operating Income	1,041,659	(179,353)	(168,593)	501,488	845,497	42,620
Rate of return	2.059%	-0.590%	-2.844%	6.170%	14.843%	9.750%
Relative rate of return	1.000	(0.287)	(1.381)	2.997	7.209	4.735

Liberty Utilities (SEMO) Summary of Rate of Return		Total		Residential		Small General Srv		Medium General Srv		Large General Srv		- Interruptible
		Company		RS		SGS		MGS		LGS		IN
Derivation of Required Revenues	•	2.005.405		2 222 720		452.002	_	620.060		425 205	_	22.200
Net Income after taxes Add: Income Taxes	\$	3,865,195 1,711,666	\$	2,322,730 1,028,600	\$	452,902 200,563	\$	620,960 274,987	\$	435,205 192,726	\$	33,398
			_		_		_		_		_	14,790
Net income before taxes & interest	\$	5,576,861	\$	3,351,330	\$	653,465	\$	895,947	\$	627,931	\$	48,188
Add: O&M		6,619,679		5,078,651		684,463		458,353		375,352		22,861
Add: Depreciation		4,271,065		2,616,687		499,355		635,926		484,336		34,761
Add: Taxes other than income		950,136		576,797		111,367		138,040		115,957		7,974
Add: Interest on customer deposits		50,119		43,955		5,319		845		-		-
Net Revenue Requirement		17,467,860		11,667,419		1,953,970		2,129,111		1,603,577		113,784
Add: Changes/ True-up Estimate												
Total Revenue Requirement	\$	17,467,860	\$	11,667,419	\$	1,953,970	\$	2,129,111	\$	1,603,577	\$	113,784
Demand-Related												
Rate Base	\$	12,311,225	\$	6,234,724	\$	1,581,751	\$	1,728,787	\$	2,623,759	\$	142,205
Net Income after taxes		940,578		476,333		120,846		132,079		200,455		10,864
Add: Income Taxes		416,526		210,940		53,515		58,490		88,770		4,811
Net income before taxes & interest	\$	1,357,104	\$	687,273	\$	174,361	\$	190,569	\$	289,225	\$	15,676
Add: O&M		687,139		347,632		88,304		96,510		146,753		7,940
Add: Depreciation		1,249,388		632,081		160,558		175,479		266,833		14,438
Add: Taxes other than income		288,661		146,037		37,096		40,543		61,650		3,336
Required Demand Revenues	\$	3,582,292	\$	1,813,022	\$	460,319	\$	503,101	\$	764,461	\$	41,389

Liberty Utilities (SEMO)				Small	Medium	Large	
Summary of Rate of Return		Total	Residential	General Srv	General Srv	General Srv	Interruptible
		Company	RS	SGS	MGS	LGS	IN
Fully Allocated Customer Costs							
Rate Base	\$	36,352,825	\$ 22,938,886	\$ 4,048,197	\$ 6,118,824	\$ 2,977,405	\$ 269,513
Net Income after taxes		2,777,356	1,752,531	309,282	467,478	227,474	20,591
Add: Income Taxes	-	1,229,927	776,092	136,963	207,018	100,735	9,118
Net income before taxes & interest	\$	4,007,283	\$ 2,528,623	\$ 446,245	\$ 674,497	\$ 328,208	\$ 29,709
Add: O&M		5,881,290	4,708,665	590,550	354,589	213,335	14,151
Add: Depreciation		3,021,485	1,984,523	338,776	460,420	217,446	20,320
Add: Taxes other than income		660,764	430,449	74,194	97,397	54,096	4,628
Add: Interest on deposits		50,119	43,955	5,319	845	-	-
Required Customer Revenues	\$	13,620,941	\$ 9,696,215	\$ 1,455,084	\$ 1,587,748	\$ 813,085	\$ 68,809
Number of Customers		31,356	 27,469	3,324	528	31	 3
Monthly cost per customer	\$	36.20	\$ 29.42	\$ 36.48	\$ 250.51	\$ 2,185.71	\$ 1,678.26
Required Total Revenues		17,203,233	11,509,237	1,915,403	2,090,848	1,577,546	110,198

TAB NAME: Summary Rate of Return

Liberty Utilities (SEMO)				Small	M	edium		Large	-
Summary of Rate of Return	Total		Residential	General Srv	Gene	ral Srv		General Srv	Interruptible
	Company		RS	SGS		MGS		LGS	IN
Basic Customer Costs									
Plant									
376.0 Mains - Cathodic Protection	664,778		336,319	85,430		93,369		141,977	7,682
376.1 Mains - Steel	4,109,959		2,079,278	528,168	5	77,250		877,769	47,494
376.2 Mains - Plastic	6,102,181		3,087,167	784,188	8.	57,061		1,303,250	70,515
380.0 Services	12,844,313		10,502,241	1,326,670	8	85,187		114,692	15,524
381.0 Meters	5,564,004		3,414,155	595,969	1,2	98,735		221,556	33,589
382.0 Meter Installations	7,028,930		4,313,055	752,879	1,6	40,674		279,888	42,433
383.0 House Regulators	1,443,579		747,033	255,047	3:	99,181		38,434	3,883
384.0 House Regulators Installations	577,549		298,874	102,039	1	59,705		15,377	1,554
385.0 Ind. Meas. & Reg. Sta. Equip	549,045		-	-		-		476,765	 72,280
Total	38,884,337		24,778,122	4,430,390	5,9	11,163		3,469,708	294,954
Accumulated Depreciation									
376.0 Mains - Cathodic Protection	(139,108)	(70,376)	(17,877)	(19,538)		(29,709)	(1,607
376.1 Mains - Steel	(1,235,716)	(625,163)	(158,801)	(1	73,558)		(263,913)	(14,280
376.2 Mains - Plastic	(1,347,308)	(681,620)	(173,142)	(1	89,232)		(287,746)	(15,569
380.0 Services	(2,400,361)	(1,962,672)	(247,930)	(1	65,425)		(21,434)	(2,901
381.0 Meters	1,318,434		809,010	141,219	3	07,745		52,499	7,959
382.0 Meter Installations	(1,771,209)	(1,086,840)	(189,717)	(4	13,431)		(70,529)	(10,693
383.0 House Regulators	(888,098)	(459,579)	(156,906)	(2	45,579)		(23,645)	(2,389
384.0 House Regulators Installations	(392,728)	(203,232)	(69,386)	(1	08,598)		(10,456)	(1,056
385.0 Ind. Meas. & Reg. Sta. Equip	(158,347)	-	-		-		(137,501)	(20,846
Total	(7,014,440)	(4,280,471)	(872,539)	(1,0	07,615)	•	(792,434)	(61,382
Net income before taxes & interest									
Net Plant	31,869,897		20,497,651	3,557,852	4,9	03,548		2,677,274	233,572
Net Income after taxes	2,434,860	\$	1,566,021	\$ 271,820	\$ 3	74,631	\$	204,544	\$ 17,845
Add: Income Taxes	1,078,256		693,498	 120,373	1	65,902		90,580	 7,902
Net income before taxes & interest	\$ 3,513,116	\$	2,259,518	\$ 392,193	\$ 5	40,533	\$	295,124	\$ 25,747

iberty Utilities (SEMO)			Small	Medium		Large	-
Summary of Rate of Return	Total	Residential	General Srv	General Srv		General Srv	Interruptibl
	Company	RS	SGS	MGS		LGS	
Basic Customer Costs (Continued)							
O&M Expenses							
874 Mains & Service Expenses	669,476	451,704	76,891	68,098	3	68,798	3,985
876 Meas. & Reg. Sta. Expenses - Industrial	-	-	-	-		-	-
878 Meter & House Reg. Expenses	193,372	122,209	21,903	41,688	3	6,600	97
879 Customer Installations Expenses	-	-	-	-		-	-
880 Other Expenses	-	-	-	-		-	-
902 Meter Reading Expenses	205,591	180,057	21,827	3,512	2	175	20
903 Customer Records & Collection Expenses	971,224	852,073	101,474	16,338	3	1,219	120
909 Informational and Instructional Advertising Expenses	14,273	12,504	1,513	240)	14	2
913 Advertising	937	821	99	16	5	1	(
916 Miscellaneous Sales Expense	<u> </u>	 -	 -			-	
Total	2,054,873	1,619,367	223,708	129,892	2	76,808	5,099
Depreciation Expense							
376.0 Mains - Cathodic Protection	664,778	5,158	1,310	1,432	2	2,177	118
376.1 Mains - Steel	4,109,959	31,836	8,087	8,838	3	13,439	72
376.2 Mains - Plastic	6,102,181	47,385	12,037	13,155	5	20,004	1,082
380.0 Services	12,844,313	521,541	65,882	43,958	3	5,696	77:
381.0 Meters	5,564,004	88,212	15,398	33,556	5	5,724	868
382.0 Meter Installations	7,028,930	128,644	22,456	48,936	5	8,348	1,26
383.0 House Regulators	1,443,579	33,990	11,605	18,163	3	1,749	17
384.0 House Regulators Installations	577,549	9,953	3,398	5,318	3	512	5
385.0 Ind. Meas. & Reg. Sta. Equip	549,045	-	-	-		15,786	2,39
Total	38,884,337	866,718	140,172	173,356	5	73,435	7,45
Basic customer-related costs	6,829,124	\$ 4,745,604	\$ 756,073	\$ 843,781	L \$	445,367	\$ 38,30
Number of customers	31,356	 27,469	 3,324	528	3	31	
Monthly basic cost per customer	\$ 18.15	\$ 14.40	\$ 18.95	\$ 133.13	\$	1,197.22	\$ 934.14

Liberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Intangible Plant								
301.0 Organization		<u>-</u>					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
302.0 Franchises & Consents		-					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity		-	-	-	-	-	-	0%
Fotal		-	-	-	-	-	-	
303.0 Misc. Intangible Plant		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity		-	-	-	-	-	-	0%
Fotal		-	-	-	-	-	-	
Total Intangible Plant		-						
- Demand	-	-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Fotal	_	-	-	-	-	-	-	
Production Plant								
	-						-	
311.0 Liquified Petroleum Gas Equipment		-						DEM
- Demand	P(S)	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
otal Production Plant		<u>-</u>						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-	-	
Total Total		-	-	-	-	-	-	

Liberty Utilities (SEMO)				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Transmission Plant								
365.0 Land and Land Rights - TP							-	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
365.1 Rights-Of-Way		106,661						DEM
- Demand	P&A	106,661	53,961	13,707	14,981	22,780	1,233	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		106,661	53,961	13,707	14,981	22,780	1,233	
365.2 Rights-of-way - TP		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
366.0 Structures & Improvements		2,473						DEM
- Demand	P&A	2,473	1,251	318	347	528	29	100%
- Customer		, =	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total	<u> </u>	2,473	1,251	318	347	528	29	
366.1 Underground Conduit		22,959					Г	DEM
- Demand	P&A	22,959	11,615	2,951	3,225	4,903	265	100%
- Customer	. 5	-	-	-	-	-	-	0%
- Commodity		-	-	-	-	_	-	0%
Total		22,959	11,615	2,951	3,225	4,903	265	
367.0 Mains - Cathodic Protection		63,589					Г	DEM
- Demand	P&A	63,589	32,170	8,172	8,931	13,581	735	100%
- Customer	i un	-	-	-	-	-	-	0%
- Commodity		-	-	-	-	_	-	0%
Total		63,589	32,170	8,172	8,931	13,581	735	-,-

<u>Liberty Utilities (SEMO)</u>				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
367.1 Mains - Steel		7,265,018					Г	DEM
- Demand	P&A	7,265,018	3,675,460	933,623	1,020,383	1,551,598	83,953	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		7,265,018	3,675,460	933,623	1,020,383	1,551,598	83,953	
367.2 Mains - Plastic		24,788					ı	DEM
- Demand	P&A	24,788	12,541	3,185	3,482	5,294	286	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		24,788	12,541	3,185	3,482	5,294	286	
369.0 Meas. & Reg. Sta. Equipment		440,915					Г	DEM
- Demand	P&A	440,915	223,064	56,662	61,927	94,167	5,095	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		440,915	223,064	56,662	61,927	94,167	5,095	
370.0 Communication Equipment		5,038					Г	DEM
- Demand	P&A	5,038	2,549	647	708	1,076	58	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		5,038	2,549	647	708	1,076	58	
Total Transmission Plant	<u></u>	7,931,441						
- Demand		7,931,441	4,012,612	1,019,265	1,113,983	1,693,927	91,654	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Total		7,931,441	4,012,612	1,019,265	1,113,983	1,693,927	91,654	

<u>Liberty Utilities (SEMO)</u>				Small	Medium	Large	-	
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Distribution Plant		52.004						22
374.0 Land & Land Rights		52,881						DP
- Demand	DP_D	12,459	6,303	1,601	1,750	2,661	144	24%
- Customer	DP_C	40,422	25,758	4,606	6,145	3,607	307	76%
- Commodity		-	-	-	-	-	-	0%
Total		52,881	32,061	6,207	7,895	6,268	451	
374.1 T&D Land		178,295						DP
- Demand	DP_D	42,007	21,252	5,398	5,900	8,972	485	24%
- Customer	DP_C	136,287	86,846	15,528	20,718	12,161	1,034	76%
- Commodity		-	-	-	-	-	-	0%
Total		178,295	108,098	20,927	26,618	21,133	1,519	
374.2 Land Rights		150,607						DP
- Demand	DP_D	35,484	17,952	4,560	4,984	7,578	410	24%
- Customer	DP C	115,123	73,360	13,117	17,501	10,273	873	76%
- Commodity	51_0	-	-	-	-	-		0%
Total		150,607	91,311	17,677	22,485	17,851	1,283	070
375.0 Structures & Improvements		42,841						DP
· · · · · · · · · · · · · · · · · · ·	DD D	10,094	F 10C	1,297	1 410	2.150	117	24%
- Demand	DP_D	32,748	5,106		1,418	2,156 2,922	117	
- Customer	DP_C	32,748	20,868	3,731	4,978 -	2,922	248	76%
- Commodity Total		42,841	25,974	5,028	6,396	5,078	365	0%
		•	,	,	,	•	_	
376.0 Mains - Cathodic Protection	<u> </u>	1,222,645						DISMAIN
- Demand	P&A	557,866	282,231	71,691	78,353	119,144	6,447	46%
- Customer	P&A	664,778	336,319	85,430	93,369	141,977	7,682	54%
- Commodity		-	-	-	-	-	-	0%
Total		1,222,645	618,551	157,121	171,722	261,122	14,129	
376.1 Mains - Steel		7,558,940						DISMAIN
- Demand	P&A	3,448,981	1,744,881	443,227	484,415	736,603	39,856	46%
- Customer	P&A	4,109,959	2,079,278	528,168	577,250	877,769	47,494	54%
- Commodity		-,103,333	-	-	-	-	-	0%
Total		7,558,940	3,824,159	971,395	1,061,665	1,614,372	87,349	

<u>.iberty Utilities (SEMO)</u>				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
376.2 Mains - Plastic		11,222,987					Г	DISMAIN
- Demand	P&A	5,120,807	2,590,678	658,072	719,225	1,093,657	59,175	46%
- Customer	P&A	6,102,181	3,087,167	784,188	857,061	1,303,250	70,515	54%
- Commodity		-	-	-	-	-	-	0%
Total		11,222,987	5,677,845	1,442,260	1,576,286	2,396,907	129,690	
377.0 Compressor Station Equipment - DP		-					Г	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Гotal		-	-	-	-	-	-	
378.0 Meas. & Reg. Sta. Eq-General		1,022,440					Г	DEM
- Demand	P&A	1,022,440	517,265	131,393	143,603	218,364	11,815	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Fotal		1,022,440	517,265	131,393	143,603	218,364	11,815	
379.0 Meas. & Reg City Gate		1,835,049					Г	DEM
- Demand	P&A	1,835,049	928,374	235,821	257,736	391,914	21,205	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		1,835,049	928,374	235,821	257,736	391,914	21,205	
880.0 Services		12,844,313					Г	CUS
- Demand		-	-	-	-	-	-	0%
- Customer	SV	12,844,313	10,502,241	1,326,670	885,187	114,692	15,524	100%
- Commodity			-	-	-	-	-	0%
Total		12,844,313	10,502,241	1,326,670	885,187	114.692	15.524	

iberty Utilities (SEMO) Allocation of Gross Plant	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
381.0 Meters		5,564,004						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MI	5,564,004	3,414,155	595,969	1,298,735	221,556	33,589	100%
- Commodity		-	-	-	-	-	-	0%
otal		5,564,004	3,414,155	595,969	1,298,735	221,556	33,589	
82.0 Meter Installations		7,028,930					Г	CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MI	7,028,930	4,313,055	752,879	1,640,674	279,888	42,433	100%
- Commodity		-	-	-	-	-	-	0%
otal		7,028,930	4,313,055	752,879	1,640,674	279,888	42,433	
83.0 House Regulators		1,443,579						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	R	1,443,579	747,033	255,047	399,181	38,434	3,883	100%
- Commodity		-	-	-	-	-	-	0%
otal		1,443,579	747,033	255,047	399,181	38,434	3,883	
84.0 House Regulators Installations		577,549						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	R	577,549	298,874	102,039	159,705	15,377	1,554	100%
- Commodity		-	-	-	-	-	-	0%
otal		577,549	298,874	102,039	159,705	15,377	1,554	
85.0 Ind. Meas. & Reg. Sta. Equip		549,045						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MIL	549,045	-	-	-	476,765	72,280	100%
- Commodity		-	-	-	-	-	-	0%
otal		549,045	-	-	-	476,765	72,280	
87.0 Other Equipment - DP		-						DP
- Demand	DP_D	-	-	-	-	-	-	24%
- Customer	DP_C	-	-	-	-	-	-	76%
- Commodity								0%
otal		-	-	-	-	-	-	
otal Distribution Plant		51,294,105						
- Demand		12,085,187	6,114,042	1,553,060	1,697,383	2,581,048	139,654	
- Customer		39,208,917	24,984,953	4,467,372	5,960,505	3,498,671	297,416	
- Commodity		-	-	-	-	-	-	
otal	-	51,294,105	31,098,996	6,020,433	7,657,888	6,079,718	437,070	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

TAB NAME: Alloc Plant

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<u>Liberty Utilities (SEMO)</u>				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
General Plant							_	
389.0 Land & Land Rights	<u> </u>	-						T&D
- Demand	T&D_D	-	-	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
390.0 Structures & Improvements		3,294,416						T&D
- Demand	T&D_D	1,113,423	563,294	143,085	156,382	237,795	12,866	34%
- Customer	T&D_C	2,180,993	1,389,786	248,497	331,553	194,613	16,544	66%
- Commodity		-	-	-	-	-	-	0%
Total		3,294,416	1,953,080	391,583	487,935	432,408	29,410	
390.1 Structures & Improvements - Structur	re Frame - GP	-						T&D
- Demand	T&D_D	-	-	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
390.2 General - Improvements		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
390.3 Improvements		29,002						T&D
- Demand	T&D_D	9,802	4,959	1,260	1,377	2,093	113	34%
- Customer	T&D_C	19,200	12,235	2,188	2,919	1,713	146	66%
- Commodity		<u>-</u>	-	-	-	-	-	0%
Total		29,002	17,194	3,447	4,295	3,807	259	
391.0 Office Furniture & Equipment		745,308						T&D
- Demand	T&D_D	251,894	127,436	32,371	35,379	53,797	2,911	34%
- Customer	T&D_C	493,414	314,417	56,218	75,008	44,028	3,743	66%
- Commodity	_	, -	-	-	-	, -	-	0%
Total		745,308	441,853	88,589	110,387	97,825	6,654	

Liberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
392.0 Transportation Equipment		58,773						T&D
- Demand	T&D_D	19,864	10,049	2,553	2,790	4,242	230	34%
- Customer	T&D_C	38,909	24,794	4,433	5,915	3,472	295	66%
- Commodity		-	-	-	-	-	-	0%
Total		58,773	34,843	6,986	8,705	7,714	525	
392.1 Transportation Equipment<12		2,089,403						T&D
- Demand	T&D_D	706,162	357,256	90,748	99,182	150,816	8,160	34%
- Customer	T&D_C	1,383,242	881,438	157,603	210,279	123,429	10,492	66%
- Commodity		-	-	-	-	-	-	0%
Гotal		2,089,403	1,238,694	248,352	309,461	274,245	18,653	
393.0 Stores Equipment - GP		606						T&D
- Demand	T&D_D	205	104	26	29	44	2	34%
- Customer	T&D_C	401	256	46	61	36	3	66%
- Commodity		-	-	-	-	-	-	0%
Гotal		606	359	72	90	79	5	
394.0 Tools, Shop, & Garage Equip.		1,036,867						T&D
- Demand	T&D_D	350,433	177,288	45,034	49,219	74,842	4,050	34%
- Customer	T&D_C	686,434	437,414	78,211	104,351	61,252	5,207	66%
- Commodity		-	-	-	-	-	-	0%
Total Total		1,036,867	614,702	123,245	153,570	136,094	9,256	
395.0 Laboratory Equipment - GP	_	569						T&D
- Demand	T&D_D	192	97	25	27	41	2	34%
- Customer	T&D_C	377	240	43	57	34	3	66%
- Commodity		-	-	-	-	-	-	0%
otal		569	337	68	84	75	5	
396.0 Power Operated Equipment - GP		411,797						T&D
- Demand	T&D_D	139,176	70,411	17,885	19,548	29,724	1,608	34%
- Customer	T&D_C	272,621	173,721	31,062	41,444	24,326	2,068	66%
- Commodity		=	-	=	=	=	-	0%
Total		411,797	244,132	48,947	60,991	54,050	3,676	

iberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
396.1 Ditchers		54,194					i	T&D
- Demand	T&D_D	18,316	9,266	2,354	2,573	3,912	212	34%
- Customer	T&D C	35,878	22,862	4,088	5,454	3,201	272	66%
- Commodity		-	,	-	-	-	-	0%
otal	<u> </u>	54,194	32,129	6,442	8,027	7,113	484	
96.2 Backhoes		41,746					ſ	T&D
- Demand	T&D_D	14,109	7,138	1,813	1,982	3,013	163	34%
- Customer	T&D_C	27,637	17,611	3,149	4,201	2,466	210	66%
- Commodity	TGD_C	-	-	5,145	-,201	-	-	0%
otal		41,746	24,749	4,962	6,183	5,479	373	
96.3 Ditches - Group		_					ſ	T&D
- Demand	T&D_D		_		_	_	_	34%
- Customer	T&D_C	-	_	-	_	_	-	66%
- Commodity	T&D_C	_	_	_	_	_		0%
otal		-	-	-	-	-	-	070
							ı	
97.0 Communication Equipment		11,222						T&D
- Demand	T&D_D	3,793	1,919	487	533	810	44	34%
- Customer	T&D_C	7,429	4,734	846	1,129	663	56	66%
- Commodity		-	-	-	-	-	-	0%
otal		11,222	6,653	1,334	1,662	1,473	100	
97.2 GEN-Comm Eq. Fixed Radios		10,517					[T&D
- Demand	T&D_D	3,554	1,798	457	499	759	41	34%
- Customer	T&D_C	6,963	4,437	793	1,058	621	53	66%
- Commodity		-	-	-	-	-	-	0%
otal		10,517	6,235	1,250	1,558	1,380	94	
97.3 GEN-Comm Eq. Telemetering	<u></u>	3,173					ſ	T&D
- Demand	T&D_D	1,073	543	138	151	229	12	34%
- Customer	T&D_C	2,101	1,339	239	319	187	16	66%
- Commodity		-	-	<u>-</u>	-	-	-	0%
otal	<u> </u>	3,173	1,881	377	470	417	28	
97.5 Communication Equipment		-					[T&D
- Demand	T&D_D	-	_	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity	-	_		_	_	_	_	0%

Total

iberty Utilities (SEMO)				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classificatio
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
98.0 Miscellaneous Equipment		707,885						T&D
- Demand	T&D_D	239,246	121,037	30,745	33,602	51,096	2,765	34%
- Customer	T&D_C	468,639	298,629	53,396	71,242	41,817	3,555	66%
- Commodity		-	-	-	-	-	-	0%
otal		707,885	419,667	84,141	104,845	92,913	6,319	
99.0 OTH-Other Tangible Property		88,118						T&D
- Demand	T&D_D	29,781	15,067	3,827	4,183	6,360	344	34%
- Customer	T&D_C	58,336	37,174	6,647	8,868	5,205	443	66%
- Commodity		-	-	-	-	-	-	0%
otal		88,118	52,240	10,474	13,051	11,566	787	
99.1 OTH-Oth Tang Prop - Servers - H/W		10,708						T&D
- Demand	T&D D	3,619	1,831	465	508	773	42	34%
- Customer	T&D_C	7,089	4,517	808	1,078	633	54	66%
- Commodity		-	-	-	-	-	-	0%
otal		10,708	6,348	1,273	1,586	1,405	96	
99.3 OTH-Oth Tang Prop - Network - H/W		123,130						T&D
- Demand	T&D_D	41,614	21,053	5,348	5,845	8,888	481	34%
- Customer	T&D_C	81,515	51,944	9,288	12,392	7,274	618	66%
- Commodity		-	-	-	-	-	-	0%
otal		123,130	72,997	14,635	18,237	16,161	1,099	
99.4 Oth Tang Prop - PC Hardward		1,076,682						T&D
- Demand	T&D_D	363,889	184,096	46,763	51,109	77,716	4,205	34%
- Customer	T&D C	712,793	454,210	81,214	108,358	63,604	5,407	66%
- Commodity	_	-	-	-	-	-	-	0%
otal	-	1,076,682	638,306	127,977	159,467	141,320	9,612	
99.5 OTH-Oth Tang Prop - PC Software		6,129,380						T&D
- Demand	T&D_D	2,071,564	1,048,029	266,216	290,954	442,426	23,938	34%
- Customer	T&D_C	4,057,816	2,585,747	462,338	616,866	362,085	30,780	66%
- Commodity	_	-	-	-	-	-	· -	0%
otal		6,129,380	3,633,776	728,554	907,820	804,511	54,719	
otal General Plant		15,923,497						
- Demand	•	5,381,710	2,722,672	691,600	755,870	1,149,378	62,190	
- Customer		10,541,787	6,717,504	1,201,107	1,602,553	940,659	79,964	
- Commodity		-,- ,	-	-	-,,	-	=	
otal	-	15,923,497	9,440,176	1,892,707	2,358,423	2,090,038	142,154	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Alloc Plant

iberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
AD Not Reflected in Subledger		-						T&D
- Demand	T&D_D	-	-	-	-	_	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
roforma Adjustments								
AMR Addition		5,292,000						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	5,292,000	3,247,249	566,834	1,235,245	210,725	31,947	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		5,292,000	3,247,249	566,834	1,235,245	210,725	31,947	
ehicle Additions		<u> </u>						T&D
- Demand	T&D_D	-	-	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
VC & Steel Mains Replacement		1,000,000						DISMAIN
- Demand	P&A	456,278	230,837	58,636	64,085	97,448	5,273	46%
- Customer	P&A	543,722	275,075	69,873	76,367	116,123	6,283	54%
- Commodity		-	-	-	-	-	-	0%
otal		1,000,000	505,912	128,509	140,452	213,571	11,556	
ate Case Expense								T&D
- Demand	T&D_D	-	-	-	-	-	-	46%
- Customer	T&D_C	-	-	-	-	-	-	54%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
irksville Shop		950,000						T&D
- Demand	T&D_D	433,464	219,295	55,704	60,881	92,576	5,009	46%
- Customer	T&D_C	516,536	329,150	58,853	78,523	46,091	3,918	54%
- Commodity		-	-	-	-	-	-	0%
Total Total		950,000	548,445	114,557	139,404	138,667	8,927	

Liberty Utilities (SEMO)				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Merit Increases		106,560						T&D
- Demand	T&D_D	48,621	24,598	6,248	6,829	10,384	562	46%
- Customer	T&D_C	57,939	36,920	6,601	8,808	5,170	439	54%
- Commodity		-	-	-	-	-	-	0%
Total		106,560	61,518	12,850	15,637	15,554	1,001	
Vacant Positions		75,018						T&D
- Demand	T&D_D	34,229	17,317	4,399	4,808	7,310	396	46%
- Customer	T&D C	40,789	25,992	4,647	6,201	3,640	309	54%
- Commodity		-	-	-	-	-	-	0%
Total		75,018	43,309	9,046	11,008	10,950	705	
CAM Adjustments		(116,474)						T&D
- Demand	T&D_D	(53,145)	(26,887)	(6,830)	(7,464)	(11,350)	(614)	46%
- Customer	T&D_C	(63,329)	(40,355)	(7,216)	(9,627)	(5,651)	(480)	54%
- Commodity	T&B_C	(03,323)	(40,333)	(7,210)	(5,027)	(5,051)	(480)	0%
Total		(116,474)	(67,242)	(14,045)	(17,092)	(17,001)	(1,095)	070
							-	
Depreciation Study		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	46%
- Customer	T&D_C	-	-	-	-	-	-	54%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
EE Reg Asset Adjustment		<u>-</u> _						OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	10%
- Customer	OM(F)_C	-	-	-	-	-	-	89%
- Commodity	OM(F)_E	-	-	-	-	-	-	1%
Total		-	-	-	-	-	-	
Total Adjustments		7,307,104						
- Demand	<u> </u>	919,448	465,160	118,158	129,138	196,368	10,625	
- Customer		6,387,655	3,874,031	699,593	1,395,516	376,098	42,417	
- Commodity		-	-	-	-	-	-	
Total		7,307,104	4,339,191	817,751	1,524,654	572,466	53,042	
Total Utility Plant		82,456,146						
- Demand		26,317,787	13,314,486	3,382,084	3,696,374	5,620,721	304,122	
- Customer		56,138,360	35,576,488	6,368,072	8,958,574	4,815,428	419,797	
- Commodity		· · · · -	-	-	-	· · ·	-	
Total		82,456,146	48,890,975	9,750,156	12,654,948	10,436,149	723,919	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

TAB NAME: Alloc Plant

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Liberty Utilities (SEMO)	Allegation	Total	Davidantial	Small	Medium	Large	-	Classification
Allocation of Accumulated Depreciation	Allocation Factor	Total Company	Residential RS	General Srv SGS	General Srv MGS	General Srv LGS	Interruptible IN	Classification Factor
	Factor	Company	no no	303	MIGS	103	IN	ractor
ntangible Plant								
301.0 Organization	_	(894)						T&D
- Demand	T&D_D	(302)	(153)	(39)	(42)	(65)	(3)	34%
- Customer	T&D_C	(592)	(377)	(67)	(90)	(53)	(4)	66%
- Commodity	-	-	=	-	-	=	-	0%
Fotal		(894)	(530)	(106)	(132)	(117)	(8)	
302.0 Franchises & Consents	_	(25,888)						T&D
- Demand	T&D_D	(8,749)	(4,426)	(1,124)	(1,229)	(1,869)	(101)	34%
- Customer	T&D_C	(17,139)	(10,921)	(1,953)	(2,605)	(1,529)	(130)	66%
- Commodity	-	=	-	-	-	-	-	0%
Total		(25,888)	(15,348)	(3,077)	(3,834)	(3,398)	(231)	
03.0 Misc. Intangible Plant	_	(13,990)						T&D
- Demand	T&D_D	(4,728)	(2,392)	(608)	(664)	(1,010)	(55)	34%
- Customer	T&D_C	(9,262)	(5,902)	(1,055)	(1,408)	(826)	(70)	66%
- Commodity	-	-	=	-	-	=	-	0%
Total		(13,990)	(8,294)	(1,663)	(2,072)	(1,836)	(125)	
Total Intangible Plant	_	(40,772)						
- Demand		(13,780)	(6,971)	(1,771)	(1,935)	(2,943)	(159)	
- Customer		(26,992)	(17,200)	(3,075)	(4,103)	(2,409)	(205)	
- Commodity		-	-	-	-	-	-	
Total		(40,772)	(24,172)	(4,846)	(6,039)	(5,352)	(364)	
Production Plant								
311.0 Liquified Petroleum Gas Equipment		-						DEM
- Demand	P(S)	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	_	-	-			-	-	0%
otal		-	-	-	-	Ē	-	
otal Production Plant	_	<u>-</u>						
- Demand	_	-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	_	_	_	_	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

TAB NAME: Alloc Depre

Total

<u>Liberty Utilities (SEMO)</u> Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
ransmission Plant								
365.0 Land and Land Rights - TP		127						DEM
- Demand	P&A	127	64	16	18	27	1	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Fotal		127	64	16	18	27	1	
365.1 Rights-Of-Way	_	(2,241)						DEM
- Demand	P&A	(2,241)	(1,134)	(288)	(315)	(479)	(26)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(2,241)	(1,134)	(288)	(315)	(479)	(26)	
365.2 Rights-of-way - TP	_	(127)						DEM
- Demand	P&A	(127)	(64)	(16)	(18)	(27)	(1)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(127)	(64)	(16)	(18)	(27)	(1)	
366.0 Structures & Improvements	_	(1,985)						DEM
- Demand	P&A	(1,985)	(1,004)	(255)	(279)	(424)	(23)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total Total		(1,985)	(1,004)	(255)	(279)	(424)	(23)	
866.1 Underground Conduit		(2,046)						DEM
- Demand	P&A	(2,046)	(1,035)	(263)	(287)	(437)	(24)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
otal		(2,046)	(1,035)	(263)	(287)	(437)	(24)	
367.0 Mains - Cathodic Protection		(22,872)						DEM
- Demand	P&A	(22,872)	(11,571)	(2,939)	(3,212)	(4,885)	(264)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-		-		-	0%
Total		(22,872)	(11,571)	(2,939)	(3,212)	(4,885)	(264)	

<u>Liberty Utilities (SEMO)</u>				Small	Medium	Large		
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
367.1 Mains - Steel		(4,588,015)						DEM
- Demand	P&A	(4,588,015)	(2,321,132)	(589,603)	(644,394)	(979,868)	(53,018)	100%
- Customer	-	-	=	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(4,588,015)	(2,321,132)	(589,603)	(644,394)	(979,868)	(53,018)	
367.2 Mains - Plastic		(375,615)						DEM
- Demand	P&A	(375,615)	(190,028)	(48,270)	(52,756)	(80,221)	(4,341)	100%
- Customer	-	-	-	-	-	- '	- 1	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(375,615)	(190,028)	(48,270)	(52,756)	(80,221)	(4,341)	
369.0 Meas. & Reg. Sta. Equipment		(265,623)						DEM
- Demand	P&A	(265,623)	(134,382)	(34,135)	(37,307)	(56,729)	(3,069)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(265,623)	(134,382)	(34,135)	(37,307)	(56,729)	(3,069)	
370.0 Communication Equipment		(1,874)					Г	DEM
- Demand	P&A	(1,874)	(948)	(241)	(263)	(400)	(22)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(1,874)	(948)	(241)	(263)	(400)	(22)	
Total Transmission Plant		(5,260,272)						
- Demand	-	(5,260,272)	(2,661,235)	(675,995)	(738,813)	(1,123,443)	(60,786)	
- Customer		-	-	-	-	-		
- Commodity		-	-	-	-	-	-	
Total	_	(5,260,272)	(2,661,235)	(675,995)	(738,813)	(1,123,443)	(60,786)	

Liberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Distribution Plant							_	22
374.0 Land & Land Rights		<u> </u>						DP
- Demand	DP_D	-	-	-	-	-	-	24%
- Customer	DP_C	-	-	-	-	-	-	76%
- Commodity	-	-	-	-	-	-	-	0%
Fotal		-	-	-	-	-	-	
374.1 T&D Land		-						DP
- Demand	DP_D	-	-	-	-	-	-	24%
- Customer	DP_C	-	-	-	-	-	-	76%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
374.2 Land Rights								DP
- Demand	DD D						-	24%
- Customer	DP_D DP_C	-	-	-	-	-		76%
	DP_C		-	-	-	-		0%
- Commodity Fotal	-	-	-	-	<u> </u>	-	-	U%
375.0 Structures & Improvements	_	(14,237)						DP
- Demand	DP_D	(3,354)	(1,697)	(431)	(471)	(716)	(39)	24%
- Customer	DP_C	(10,883)	(6,935)	(1,240)	(1,654)	(971)	(83)	76%
- Commodity	-	-	-	-	-	-	-	0%
Fotal .		(14,237)	(8,632)	(1,671)	(2,126)	(1,688)	(121)	
376.0 Mains - Cathodic Protection		(255,843)						DISMAIN
- Demand	P&A	(116,736)	(59,058)	(15,002)	(16,396)	(24,931)	(1,349)	46%
- Customer	P&A	(139,108)	(70,376)	(17,877)	(19,538)	(29,709)	(1,607)	54%
- Commodity	-	(155,100)	(70,570)	(17,577)	(15,550)	(23,703)	(1,507)	0%
Total		(255,843)	(129,434)	(32,878)	(35,934)	(54,641)	(2,956)	0 /0
OZC 1 Maine Sheel		(2.272.000)						DISMAIN
376.1 Mains - Steel		(2,272,699)	(504.600)	(422.253)	(4.45.646)	(224.475)	(44.055)	
- Demand	P&A	(1,036,984)	(524,623)	(133,262)	(145,646)	(221,470)	(11,983)	46%
- Customer	P&A	(1,235,716)	(625,163)	(158,801)	(173,558)	(263,913)	(14,280)	54%
- Commodity	-	-	<u> </u>	 	<u> </u>		-	0%
Total		(2,272,699)	(1,149,786)	(292,063)	(319,204)	(485,383)	(26,263)	

Liberty Utilities (SEMO)				Small	Medium	Large		
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
376.2 Mains - Plastic		(2,477,938)						DISMAIN
- Demand	P&A	(1,130,629)	(571,999)	(145,297)	(158,799)	(241,470)	(13,065)	46%
- Customer	P&A	(1,347,308)	(681,620)	(173,142)	(189,232)	(287,746)	(15,569)	54%
- Commodity	-	-	-	-	-	-	- 1	0%
Total		(2,477,938)	(1,253,619)	(318,438)	(348,030)	(529,216)	(28,634)	
377.0 Compressor Station Equipment - DP		(2,914)						DEM
- Demand	P&A	(2,914)	(1,474)	(374)	(409)	(622)	(34)	100%
- Customer	-	-	-	-	-	-	- 1	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(2,914)	(1,474)	(374)	(409)	(622)	(34)	
378.0 Meas. & Reg. Sta. Eq-General		(121,447)						DEM
- Demand	P&A	(121,447)	(61,441)	(15,607)	(17,057)	(25,937)	(1,403)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	=	=	=	-	-	-	0%
Гotal		(121,447)	(61,441)	(15,607)	(17,057)	(25,937)	(1,403)	
379.0 Meas. & Reg City Gate		(391,869)						DEM
- Demand	P&A	(391,869)	(198,251)	(50,359)	(55,039)	(83,692)	(4,528)	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Гotal		(391,869)	(198,251)	(50,359)	(55,039)	(83,692)	(4,528)	
380.0 Services	_	(2,400,361)						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	SV	(2,400,361)	(1,962,672)	(247,930)	(165,425)	(21,434)	(2,901)	100%
- Commodity	_		<u>-</u>	-	-	<u>-</u>	-	0%
Total		(2,400,361)	(1,962,672)	(247,930)	(165,425)	(21,434)	(2,901)	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

iberty Utilities (SEMO)				Small	Medium	Large		
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
81.0 Meters		1,318,434						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	1,318,434	809,010	141,219	307,745	52,499	7,959	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		1,318,434	809,010	141,219	307,745	52,499	7,959	
82.0 Meter Installations	_	(1,771,209)						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	(1,771,209)	(1,086,840)	(189,717)	(413,431)	(70,529)	(10,693)	100%
- Commodity	-	-	-	-	-	-	-	0%
otal	·	(1,771,209)	(1,086,840)	(189,717)	(413,431)	(70,529)	(10,693)	
83.0 House Regulators		(888,098)						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	R	(888,098)	(459,579)	(156,906)	(245,579)	(23,645)	(2,389)	100%
- Commodity	-	-	-	-	-	-	-	0%
otal	·	(888,098)	(459,579)	(156,906)	(245,579)	(23,645)	(2,389)	
84.0 House Regulators Installations	_	(392,728)						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	R	(392,728)	(203,232)	(69,386)	(108,598)	(10,456)	(1,056)	100%
- Commodity	-	=	-	-	-	-	-	0%
otal		(392,728)	(203,232)	(69,386)	(108,598)	(10,456)	(1,056)	
85.0 Ind. Meas. & Reg. Sta. Equip		(158,347)						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MIL	(158,347)	-	-	-	(137,501)	(20,846)	100%
- Commodity	-	-	-	-	-	-	-	0%
otal	·	(158,347)	-	-	-	(137,501)	(20,846)	
87.0 Other Equipment - DP		(32)						DP
- Demand	DP_D	(8)	(4)	(1)	(1)	(2)	(0)	24%
- Customer	DP_C	(24)	(16)	(3)	(4)	(2)	(0)	76%
- Commodity	_	-	-	-	- ' '	-	- 1	0%
otal		(32)	(19)	(4)	(5)	(4)	(0)	
otal Distribution Plant		(9,829,288)						
- Demand	-	(2,803,940)	(1,418,547)	(360,333)	(393,818)	(598,841)	(32,402)	
- Customer		(7,025,348)	(4,287,422)	(873,781)	(1,009,273)	(793,407)	(61,465)	
- Commodity		-	-	-	-	-	-	
, Fotal	_	(9,829,288)	(5,705,969)	(1,234,114)	(1,403,091)	(1,392,248)	(93,867)	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

Liberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
General Plant							_	
389.0 Land & Land Rights								T&D
- Demand	T&D_D	-	-	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
390.0 Structures & Improvements		(900,308)						T&D
- Demand	T&D_D	(304,280)	(153,939)	(39,103)	(42,737)	(64,985)	(3,516)	34%
- Customer	T&D_C	(596,028)	(379,805)	(67,910)	(90,608)	(53,184)	(4,521)	66%
- Commodity	-	-	-	-	-	-	-	0%
Total		(900,308)	(533,743)	(107,013)	(133,344)	(118,170)	(8,037)	
390.1 Structures & Improvements - Structure F	rame - GP	(335)						T&D
- Demand	T&D_D	(113)	(57)	(15)	(16)	(24)	(1)	34%
- Customer	T&D_C	(222)	(141)	(25)	(34)	(20)	(2)	66%
- Commodity	- Tab_c	-	-	-	-	-	-	0%
Total		(335)	(199)	(40)	(50)	(44)	(3)	0,0
390.2 General - Improvements		_						T&D
- Demand	T&D_D		_	_	_	_	_	34%
- Customer	T&D_C	_	_	_	_		_	66%
- Commodity	- T&D_C	-	-	- -	_	-	_	0%
Total		-	-	-	-	-	-	070
390.3 Improvements		(19,581)						T&D
- Demand	T&D D	(6,618)	(3,348)	(850)	(929)	(1,413)	(76)	34%
- Customer	T&D_D	(12,963)	(8,260)	(850)	(929) (1,971)	(1,413)	(98)	66%
- Commodity	1&D_C -	(12,903)	(8,200)	(1,477)	(1,9/1)	(1,137)	(36)	0%
- Commodity Fotal	-	(19,581)	(11,608)	(2,327)	(2,900)	(2,570)	(175)	U/0
204 0 Office Functions & Functions								T0.D
391.0 Office Furniture & Equipment	-	(144,033)					,	T&D
- Demand	T&D_D	(48,679)	(24,627)	(6,256)	(6,837)	(10,396)	(563)	34%
- Customer	T&D_C	(95,354)	(60,762)	(10,864)	(14,496)	(8,509)	(723)	66%
- Commodity	-	-	<u> </u>	<u> </u>	-		- 1	0%
Total		(144,033)	(85,389)	(17,120)	(21,333)	(18,905)	(1,286)	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>Liberty Utilities (SEMO)</u>				Small	Medium	Large	-	
Allocation of Accumulated Depreciation	Allocation Factor	Total Company	Residential RS	General Srv SGS	General Srv MGS	General Srv LGS	Interruptible IN	Classification Factor
	Factor	Company	N3	303	IVIGS	LGS	IIV	Factor
202.0 Turning station Fundament		(74.240)					_	T&D
392.0 Transportation Equipment		(71,349)	((2.222)	(0.00=)	(= .==)	(2-2)	
- Demand	T&D_D	(24,114)	(12,200)	(3,099)	(3,387)	(5,150)	(279)	34%
- Customer	T&D_C	(47,235)	(30,099)	(5,382)	(7,181)	(4,215)	(358)	66%
- Commodity	-	- (74.240)	- (42.200)	- (0.404)	- (40.567)	- (0.255)	- (627)	0%
-otal		(71,349)	(42,299)	(8,481)	(10,567)	(9,365)	(637)	
92.1 Transportation Equipment<12		(451,591)						T&D
- Demand	T&D_D	(152,625)	(77,215)	(19,614)	(21,436)	(32,596)	(1,764)	34%
- Customer	T&D_C	(298,965)	(190,509)	(34,063)	(45,448)	(26,677)	(2,268)	66%
- Commodity	-	-	-	-	-	-	-	0%
Total Total		(451,591)	(267,724)	(53,677)	(66,885)	(59,274)	(4,031)	
393.0 Stores Equipment - GP		(583)						T&D
- Demand	T&D D	(197)	(100)	(25)	(28)	(42)	(2)	34%
- Customer	T&D_C	(386)	(246)	(44)	(59)	(34)	(3)	66%
- Commodity		-	-	-	-	-	- ` ′	0%
Total ((583)	(345)	(69)	(86)	(76)	(5)	
394.0 Tools, Shop, & Garage Equip.		(175,980)						T&D
- Demand	T&D D	(59,476)	(30,090)	(7,643)	(8,354)	(12,702)	(687)	34%
- Customer	T&D_C	(116,504)	(74,239)	(13,274)	(17,711)	(10,396)	(884)	66%
- Commodity		-	-	(10)27.1)	-	-	-	0%
otal	-	(175,980)	(104,329)	(20,917)	(26,064)	(23,098)	(1,571)	0,0
895.0 Laboratory Equipment - GP		(465)						T&D
- Demand	T&D_D	(157)	(80)	(20)	(22)	(34)	(2)	34%
- Customer	T&D_D	(308)	(196)	(35)	(47)	(27)	(2)	66%
- Commodity	T&D_C	(308)	(190)	(33)	(47)	(27)	(2)	0%
otal		(465)	(276)	(55)	(69)	(61)	(4)	070
396.0 Power Operated Equipment - GP		(117,124)					_	T&D
<u> </u>	T0 D D		(20.026)	/E 007\	/F FCO\	(0.454)	(457)	
- Demand	T&D_D	(39,585)	(20,026)	(5,087)	(5,560)	(8,454)	(457)	34%
- Customer	T&D_C	(77,539)	(49,410)	(8,835)	(11,787)	(6,919)	(588)	66%
- Commodity	-	- (447.424)	- (50.435)	- (42.022)	- (47.247)	- (45. 272)	- (4.045)	0%
Total		(117,124)	(69,436)	(13,922)	(17,347)	(15,373)	(1,046)	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

iberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
396.1 Ditchers	_	(54,608)						T&D
- Demand	T&D_D	(18,456)	(9,337)	(2,372)	(2,592)	(3,942)	(213)	34%
- Customer	T&D_C	(36,152)	(23,037)	(4,119)	(5,496)	(3,226)	(274)	66%
- Commodity	-	-	-	-	-	-	-	0%
Total		(54,608)	(32,374)	(6,491)	(8,088)	(7,168)	(488)	
396.2 Backhoes	_	(27,033)						T&D
- Demand	T&D_D	(9,136)	(4,622)	(1,174)	(1,283)	(1,951)	(106)	34%
- Customer	T&D_C	(17,896)	(11,404)	(2,039)	(2,721)	(1,597)	(136)	66%
- Commodity	-	-	-	-	-	-	-	0%
Total Total		(27,033)	(16,026)	(3,213)	(4,004)	(3,548)	(241)	
396.3 Ditches - Group	_	(136)						T&D
- Demand	T&D_D	(46)	(23)	(6)	(6)	(10)	(1)	34%
- Customer	T&D_C	(90)	(57)	(10)	(14)	(8)	(1)	66%
- Commodity	-	-	-	-	-	-	-	0%
otal		(136)	(81)	(16)	(20)	(18)	(1)	
397.0 Communication Equipment		(2,114)						T&D
- Demand	T&D_D	(714)	(361)	(92)	(100)	(153)	(8)	34%
- Customer	T&D_C	(1,399)	(892)	(159)	(213)	(125)	(11)	66%
- Commodity	-	-	-	-	-	-	-	0%
Total		(2,114)	(1,253)	(251)	(313)	(277)	(19)	
397.2 GEN-Comm Eq. Fixed Radios		(4,696)						T&D
- Demand	T&D_D	(1,587)	(803)	(204)	(223)	(339)	(18)	34%
- Customer	T&D_C	(3,109)	(1,981)	(354)	(473)	(277)	(24)	66%
- Commodity		-	-	-	-	-	- 1	0%
Fotal .		(4,696)	(2,784)	(558)	(696)	(616)	(42)	
397.3 GEN-Comm Eq. Telemetering		(797)						T&D
- Demand	T&D_D	(269)	(136)	(35)	(38)	(58)	(3)	34%
- Customer	T&D_C	(527)	(336)	(60)	(80)	(47)	(4)	66%
- Commodity		-	-	-	-	-	- '	0%
- Total		(797)	(472)	(95)	(118)	(105)	(7)	
397.5 Communication Equipment		(5,645)						T&D
- Demand	T&D_D	(1,908)	(965)	(245)	(268)	(407)	(22)	34%
- Customer	T&D_C	(3,737)	(2,382)	(426)	(568)	(333)	(28)	66%
- Commodity		-	-	-	-	-	-	0%
Total		(5,645)	(3,347)	(671)	(836)	(741)	(50)	-,-

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

iberty Utilities (SEMO)				Small	Medium	Large	-	01 16
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
		(407.046)					_	70.0
98.0 Miscellaneous Equipment		(137,946)		4	4	4	()	T&D
- Demand	T&D_D	(46,622)	(23,587)	(5,991)	(6,548)	(9,957)	(539)	34%
- Customer	T&D_C	(91,324)	(58,194)	(10,405)	(13,883)	(8,149)	(693)	66%
- Commodity	-	- (4.27.0.45)	- (04.704)	- (4.6.207)	- (20,424)	- (40.400)	- (4.224)	0%
otal		(137,946)	(81,781)	(16,397)	(20,431)	(18,106)	(1,231)	
99.0 OTH-Other Tangible Property		(46,733)						T&D
- Demand	T&D_D	(15,795)	(7,991)	(2,030)	(2,218)	(3,373)	(183)	34%
- Customer	T&D_C	(30,939)	(19,715)	(3,525)	(4,703)	(2,761)	(235)	66%
- Commodity	-	-	-	-	-	-	-	0%
otal		(46,733)	(27,706)	(5,555)	(6,922)	(6,134)	(417)	
99.1 OTH-Oth Tang Prop - Servers - H/W		(6,994)						T&D
- Demand	T&D D	(2,364)	(1,196)	(304)	(332)	(505)	(27)	34%
- Customer	T&D_C	(4,630)	(2,950)	(528)	(704)	(413)	(35)	66%
- Commodity		-	-	-	-	-	- 1	0%
otal ,		(6,994)	(4,146)	(831)	(1,036)	(918)	(62)	
99.3 OTH-Oth Tang Prop - Network - H/W		(85,116)						T&D
- Demand	T&D_D	(28,767)	(14,554)	(3,697)	(4,040)	(6,144)	(332)	34%
- Customer	T&D C	(56,349)	(35,907)	(6,420)	(8,566)	(5,028)	(427)	66%
- Commodity		-	-	-	-	-	`- '	0%
otal		(85,116)	(50,461)	(10,117)	(12,606)	(11,172)	(760)	
99.4 Oth Tang Prop - PC Hardward		(507,743)						T&D
- Demand	T&D_D	(171,603)	(86,816)	(22,053)	(24,102)	(36,650)	(1,983)	34%
- Customer	T&D_B	(336,140)	(214,197)	(38,299)	(51,100)	(29,994)	(2,550)	66%
- Commodity		-	-	-	(32)200)	-	(2,555)	0%
otal	<u> </u>	(507,743)	(301,013)	(60,352)	(75,202)	(66,644)	(4,533)	
99.5 OTH-Oth Tang Prop - PC Software		(2,430,042)						T&D
- Demand	T&D_D	(821,288)	(415,500)	(105,543)	(115,351)	(175,403)	(9,491)	34%
- Customer	T&D_D	(1,608,753)	(1,025,140)	(183,298)	(244,561)	(143,551)	(12,203)	66%
- Customer - Commodity	TAD_C	(1,008,755)	(1,025,140)	(103,296)	(244,561)	(145,551)	(12,203)	0%
otal		(2,430,042)	(1,440,640)	(288,841)	(359,912)	(318,955)	(21,694)	070
otal Canaral Blant		(E 100 050)						
otal General Plant	_	(5,190,950)	(007 572)	(225.457)	(2.45, 400)	(274.600)	(20.272)	
- Demand		(1,754,400)	(887,572)	(225,457)	(246,408)	(374,689)	(20,273)	
- Customer		(3,436,549)	(2,189,860)	(391,552)	(522,421)	(306,648)	(26,068)	
- Commodity	_	- (5.400.050)	(2.077.422)	- (647,000)	- (760,020)	- (504 220)	- (46.244)	
Total		(5,190,950)	(3,077,432)	(617,009)	(768,829)	(681,338)	(46,341)	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>.iberty Utilities (SEMO)</u> Allocation of Accumulated Depreciation	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
ND Not Reflected in Subledger		(41,748)						T&D
- Demand	T&D_D	(14,110)	(7,138)	(1,813)	(1,982)	(3,013)	(163)	34%
- Customer	T&D_C	(27,638)	(17,612)	(3,149)	(4,202)	(2,466)	(210)	66%
- Commodity	-	-	-	-	-	-	-	0%
otal		(41,748)	(24,750)	(4,962)	(6,183)	(5,480)	(373)	
roforma Adjustments								
MR Addition	 	(265,129)						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	(265,129)	(162,687)	(28,398)	(61,886)	(10,557)	(1,601)	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		(265,129)	(162,687)	(28,398)	(61,886)	(10,557)	(1,601)	
ehicle Additions	_							T&D
- Demand	T&D_D	-	-	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity	-	-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
VC & Steel Mains Replacement	_	(122,300)						DISMAIN
- Demand	P&A	(55,803)	(28,231)	(7,171)	(7,838)	(11,918)	(645)	46%
- Customer	P&A	(66,497)	(33,642)	(8,546)	(9,340)	(14,202)	(768)	54%
- Commodity	-	-	-	-	-	-	-	0%
otal		(122,300)	(61,873)	(15,717)	(17,177)	(26,120)	(1,413)	
ate Case Expense	_							T&D
- Demand	T&D_D	-	-	-	-	-	-	46%
- Customer	T&D_C	-	-	-	-	-	-	54%
- Commodity	-	-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
irksville Shop		(17,670)						T&D
- Demand	T&D_D	(8,062)	(4,079)	(1,036)	(1,132)	(1,722)	(93)	46%
- Customer	T&D_C	(9,608)	(6,122)	(1,095)	(1,461)	(857)	(73)	54%
- Commodity	-	=	-	-	-	-	-	0%
Гotal		(17,670)	(10,201)	(2,131)	(2,593)	(2,579)	(166)	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

iberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Merit Increases	_	(5,328)						T&D
- Demand	T&D_D	(2,431)	(1,230)	(312)	(341)	(519)	(28)	46%
- Customer	T&D_C	(2,897)	(1,846)	(330)	(440)	(258)	(22)	54%
- Commodity	-	<u> </u>			-	=	- 1	0%
Total		(5,328)	(3,076)	(642)	(782)	(778)	(50)	
Vacant Positions		(3,751)						T&D
- Demand	T&D_D	(1,711)	(866)	(220)	(240)	(366)	(20)	46%
- Customer	T&D_C	(2,039)	(1,300)	(232)	(310)	(182)	(15)	54%
- Commodity		-	-	-	-	-	-	0%
Total		(3,751)	(2,165)	(452)	(550)	(547)	(35)	0,0
CAM Adjustments		5,824						T&D
- Demand	T&D_D	2,657	1,344	341	373	568	31	46%
- Customer	T&D_D	3,166	2,018	361	481	283	24	40% 54%
- Customer - Commodity	1αυ_С	-	2,018	361	481	-	24	54% 0%
Total	-	5,824	3,362	702	- 855	850	55	0/0
							<u>-</u>	
Depreciation Study								T&D
- Demand	T&D_D	-	-	-	-	-	-	46%
- Customer	T&D_C	-	-	-	-	-	-	54%
- Commodity	-	=	-	-	=	=	-	0%
Total		-	-	-	-	-	-	
EE Reg Asset Adjustment	_	<u> </u>						OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	10%
- Customer	OM(F)_C	-	-	-	-	-	-	89%
- Commodity	OM(F)_E	-	-	-	-	-	-	1%
Total		-	-	-	-	-	-	
Total Adjustments		(408,354)						
- Demand	_	(65,351)	(33,062)	(8,398)	(9,179)	(13,957)	(755)	
- Customer		(343,004)	(203,579)	(38,240)	(72,955)	(25,774)	(2,455)	
- Commodity		-	-	-	-	-	-	
Total	-	(408,354)	(236,641)	(46,638)	(82,134)	(39,731)	(3,210)	
Fotal Utility Plant		(20,771,385)						
- Demand	<u> </u>	(9,911,853)	(5,014,526)	(1,273,766)	(1,392,135)	(2,116,886)	(114,539)	
- Customer		(10,859,532)	(6,715,672)	(1,273,700)	(1,612,954)	(1,130,705)	(90,402)	
- Commodity		(10,655,552)	(0,713,072)	(1,309,798)	(1,012,954)	(1,130,703)	(50,402)	
Total		(20,771,385)	(11,730,198)	(2,583,565)	(3,005,089)	(3,247,591)	(204,941)	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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Liberty Utilities (SEMO)				Small	Medium	Large		
Allocation of Rate Base	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Net Plant in Service								
Total Gas Utility Plant								
- Demand		26,317,787	13,314,486	3,382,084	3,696,374	5,620,721	304,122	
- Customer		56,138,360	35,576,488	6,368,072	8,958,574	4,815,428	419,797	
- Commodity	=	-	-	-	-	-	-	
Total		82,456,146	48,890,975	9,750,156	12,654,948	10,436,149	723,919	
Fotal Accumulated Depreciation								
- Demand		(9,911,853)	(5,014,526)	(1,273,766)	(1,392,135)	(2,116,886)	(114,539)	
- Customer		(10,859,532)	(6,715,672)	(1,309,798)	(1,612,954)	(1,130,705)	(90,402)	
- Commodity	_	<u> </u>	=	<u> </u>	-	-	-	
Total	_	(20,771,385)	(11,730,198)	(2,583,565)	(3,005,089)	(3,247,591)	(204,941)	
Net Plant in Service								
- Demand		16,405,934	8,299,960	2,108,317	2,304,239	3,503,835	189,583	
- Customer		45,278,828	28,860,816	5,058,274	7,345,620	3,684,723	329,395	
- Commodity		-	-	-	-	-	-	
Total	-	61,684,762	37,160,776	7,166,591	9,649,859	7,188,558	518,978	
Additions to Utility Plant								
Storage Gas		1,859,482						СОМ
- Demand		-	-	_	-	-	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	P&A W	1,859,482	1,185,471	289,880	271,067	88,344	24,721	100%
Total		1,859,482	1,185,471	289,880	271,067	88,344	24,721	
Prepaid Expenses		135,706						OM(F)
- Demand	OM(F)_D	14,087	7,127	1,810	1,978	3,008	163	10%
- Customer	OM(F)_C	120,569	96,529	12,106	7,269	4,373	290	89%
- Commodity	OM(F) E	1,051	458	115	149	313	16	1%
Total	-···(· /	135,706	104,114	14,032	9,396	7,695	469	_,
Cash Working Capital		262,399						CWC
- Demand	CWC	47,311	30,262	5,722	6,301	4,540	486	18%
- Customer	CWC	148,853	95,211	18,003	19,825	14,284	1,530	57%
- Customer - Commodity	CWC	66,235	42,366	8,011	8,821	6,356	681	25%
Total	CVVC	262,399	167,839	31,736	34,947	25,179	2,698	23/0

Liberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of Rate Base	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Regulatory Asset - Energy Efficiency		95,632						OM(F)
- Demand	OM(F)_D	9,927	5,022	1,276	1,394	2,120	115	10%
- Customer	OM(F)_C	84,965	68,025	8,531	5,123	3,082	204	89%
- Commodity	OM(F)_E	740	323	81	105	221	11	1%
Total	- 1/_	95,632	73,370	9,888	6,622	5,423	330	·
Fotal Additions to Utility Plant								
- Demand	<u> </u>	71,324	42,410	8,808	9,674	9,668	764	
- Customer		354,387	259,765	38,641	32,217	21,739	2,025	
- Commodity		1,927,508	1,228,618	298,086	280,141	95,233	25,428	
Total	_	2,353,220	1,530,794	345,535	322,032	126,641	28,217	
Reductions to Utility Plant								
Accumulated Deferred Income Taxes		(8,392,884)						T&D
- Demand	T&D_D	(2,836,567)	(1,435,054)	(364,526)	(398,400)	(605,809)	(32,779)	34%
- Customer	T&D_C	(5,556,317)	(3,540,631)	(633,074)	(844,666)	(495,799)	(42,147)	66%
- Commodity		-	-	-	-	-	-	0%
otal		(8,392,884)	(4,975,685)	(997,599)	(1,243,067)	(1,101,608)	(74,926)	
Rate Base Offset	<u> </u>	(3,905,316)						T&D
- Demand	T&D_D	(1,319,891)	(667,749)	(169,618)	(185,381)	(281,891)	(15,252)	34%
- Customer	T&D_C	(2,585,425)	(1,647,501)	(294,577)	(393,034)	(230,701)	(19,612)	66%
- Commodity		-	-	-	-	-	-	0%
otal		(3,905,316)	(2,315,250)	(464,196)	(578,415)	(512,592)	(34,864)	
Customer Deposits	<u> </u>	(1,113,765)						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	CD	(1,113,765)	(976,775)	(118,209)	(18,781)	-	-	100%
- Commodity		-	-	-	-	-	-	0%
Fotal		(1,113,765)	(976,775)	(118,209)	(18,781)	-	-	

Cost of Service Study 12 Months Ending June 30, 2017

Liberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of Rate Base	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Customer Advances		(34,457)						MAINSVC
- Demand	P&A	(9,575)	(4,844)	(1,230)	(1,345)	(2,045)	(111)	28%
- Customer	MS_C	(24,883)	(16,789)	(2,858)	(2,531)	(2,557)	(148)	72%
- Commodity		-	-	-	-	-	-	0%
Total		(34,457)	(21,632)	(4,088)	(3,876)	(4,602)	(259)	
Total Deductions								
- Demand		(4,166,033)	(2,107,646)	(535,374)	(585,126)	(889,745)	(48,142)	
- Customer		(9,280,390)	(6,181,696)	(1,048,718)	(1,259,013)	(729,057)	(61,907)	
- Commodity	_	-	-	-	-	-		
Total		(13,446,423)	(8,289,342)	(1,584,092)	(1,844,139)	(1,618,802)	(110,048)	
Total Rate Base								
- Demand		12,311,225	6,234,724	1,581,751	1,728,787	2,623,759	142,205	
- Customer		36,352,825	22,938,886	4,048,197	6,118,824	2,977,405	269,513	
- Commodity		1,927,508	1,228,618	298,086	280,141	95,233	25,428	
Total		50,591,558	30,402,228	5,928,034	8,127,752	5,696,397	437,147	

Production Expense	Small Mediur		
Manufactured Gas Production Expense 733 Gas Mixing Expenses - - -	al Srv General Sr		
Manufactured Gas Production Expense	SGS MG	iS LGS IN	Factor
- Demand			
- Demand - Customer - Commodity P(S)			
- Customer - Commodity			COM
Commodity	-	-	0%
Total	-	-	0%
Total Production Expenses -	-		100%
- Demand - Customer - Commodity Total P(S) - Commodity Total P(S) - Commodity Total - Demand - Customer - Commodity P(S) - Commodity - Commodity - Commodity - Costomer - Commodity - Commodity Total - Costomer - Commodity - Commodity Total - Demand - Customer - Commodity - Commodity - Commodity Total - Commodity - Commodit			
- Demand - Customer - Commodity Total P(S)			СОМ
- Customer - Commodity P(S)	_		0%
Total			0%
Total			100%
- Demand - Customer - Commodity P(S)			
- Demand - Customer - Commodity P(S)			COM
- Customer - Commodity Total Total Production Expenses - Demand - Customer - Commodity Total - Commodity Total - Customer - Commodity Total - Customer - Commodity Total - Customer - Commodity - Customer - Commodity Total - Customer - Commodity Total - Customer - Commodity - Customer - Customer - Commodity - Customer - Commodity - Customer - Custom		_	0%
- Commodity P(S)			0%
Total Production Expenses		_	100%
- Demand - Customer - Commodity			10070
- Demand - Customer - Commodity			
- Customer - Commodity			
- Commodity	-	-	
Natural Gas Storage Expenses 820 Measuring & Regulating Station Equipment -	-	-	
Natural Gas Storage Expenses 820 Measuring & Regulating Station Equipment - - Demand - - Customer - - Commodity - Total - 826 Rents -			_
Season S			
Season S			
- Demand			
- Customer - Commodity	_		
- Commodity	_		
Total			
			_
- Demand		_	
- Customer	_		
- Commodity	_		
Total			_

Liberty Utilities (SEMO)	A11			Small	Medium	Large	-	01 :0: 11
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
341 Operation Labor and Expenses		_						
- Demand	_					_	_	
- Customer		_		_	_	_	_	
- Commodity		_					_	
Total								
otal .								
otal Natural Gas Storage Expenses	_	<u> </u>						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		=	=	=	=	=	<u>-</u>	
Гotal	_	-	-	-	-	-	-	
	Ī							
Transmission Expenses Operations Expenses								
351 Operating Supervision & Engineering								
	=							
- Demand - Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
- Commodity Total			<u> </u>	-	<u> </u>		-	
Total								
352 Communication System Expenses	_							
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Гotal	_	-	-	-	-	-	-	
OF C. Marine Francisco							-	DEM
356 Mains Expense	-	-					-	
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity Total		-	-	-	-	-		0%
Total		-	-	-	-	-	-	
857 Measuring & Regulating Station Equipment		-					Г	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
rotal		-	_	_	_	_	-	

Liberty Utilities (SEMO) Allocation of O&M Expenses	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
858 Transmission and Compression of Gas by (Others	-						
- Demand	_	-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Total	_	-	-	-	-	-	-	
Total Transmission Operations Expenses								
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-		
Total		-	-	-	-	-	-	
Maintenance Expenses	_							
861 Maintenance Supervision & Engineering	<u> </u>							
- Demand		-	-	-	-	-	-	
- Customer- Commodity		-	-	-	-	-	-	
Total	_	-	-	-	-	<u>-</u>	<u> </u>	
863 Maintenance of Mains		-						
- Demand	_	-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Total	-	-	=	-	-	-	-	
864 Maintenance of Compressor Station Equip	<u>om</u> ent							
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-		
Total		-	-	-	-	-	-	
865 Maintenance of Measuring & Regulating E		<u> </u>						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%

<u>liberty Utilities (SEMO)</u>				Small	Medium	Large		
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
67 Maintenance of Other Equipment		-						
- Demand	-	-	-	-	-	-	_	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
otal	_	-	-	-	-	-	-	
otal Transmission Maintenance Expenses		-						
- Demand	_	-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Γotal		-	-	-	-	-	-	
otal Transmission O&M Expenses	_							
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	<u> </u>	-	-	-	-	-		
Fotal		-	-	-	-	-	-	
Distribution Expenses								
Operations Expenses 870 Supervision & Engineering	-	100,483					г	OPER
	On D		44 547	2.026	2.407	4.062	262	
- Demand - Customer	Oper_D	22,766 75,997	11,517 50,548	2,926 8,701	3,197 9,670	4,862 6,641	263 437	23% 76%
- Customer - Commodity	Oper_C Oper E	1,721	751	188	244	513	26	2%
Total	Oper_L	100,483	62,816	11,815	13,111	12,015	726	270
371 Load Dispatching & Odorization		_					Г	COM
- Demand		-	-	-	-	-	_	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	AV	-	-	-	-	-	-	100%
otal		-	-	-	-	-	-	
71.1 Load Dispatching & Odorization	_	19,541					Г	СОМ
- Demand		-	-	-	-	-	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	AV	19,541	8,523	2,139	2,766	5,820	293	100%
Гotal		19,541	8,523	2,139	2,766	5,820	293	·

Liberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
							_	
872 Compressor Station Labor & Expense		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
874 Mains & Service Expenses		927,083					Г	MAINSVC
- Demand	MS_D	257,607	130,326	33,105	36,181	55,017	2,977	28%
- Customer	MS_C	669,476	451,704	76,891	68,098	68,798	3,985	72%
- Commodity		-	-	-	-	-	-	0%
Total		927,083	582,030	109,996	104,279	123,815	6,962	
875 Meas. & Reg. Sta. Expenses - General		868					Г	DEM
- Demand	P&A	868	439	111	122	185	10	100%
- Customer	1 0.71	-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	_	0%
Total		868	439	111	122	185	10	
876 Meas. & Reg. Sta. Expenses - Industrial		_					г	CUS
- Demand							_	0%
- Customer	P(L)					-	_	100%
- Commodity	1 (2)	_	_	_	_	_	_	0%
Total		-	-	-	-	-	-	070
OZZANA O POS CAS ESSENCIAL CITA COM							Г	DEM
877 Meas. & Reg. Sta. Expenses - City Gate	D0.4							
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity Total		<u> </u>	-	<u>-</u> -	-	-	-	0%
878 Meter & House Reg. Expenses	. <u> </u>	193,372						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	M&R	193,372	122,209	21,903	41,688	6,600	972	100%
- Commodity		-	-	-	-	-	-	0%
Total		193,372	122,209	21,903	41,688	6,600	972	

TAB NAME: Alloc O&M

Liberty Utilities (SEMO) Allocation of O&M Expenses	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
879 Customer Installations Expenses		_						CUS
- Demand								0%
- Customer	MRS	-	-	-	-	-		100%
- Commodity	IVINS		_	_		-]	0%
Total		-	-	-	-	-	-	070
							_	
880 Other Expenses		-						OPER
- Demand	Oper_D	-	-	-	-	-	-	23%
- Customer	Oper_C	-	-	-	-	-	-	76%
- Commodity	Oper_E	-	-	-	-	-	-	2%
Total		-	-	-	-	-	-	
881 Rents		571					Г	OPER
- Demand	Oper_D	129	65	17	18	28	1	23%
- Customer	Oper_C	432	287	49	55	38	2	76%
- Commodity	Oper_E	10	4	1	1	3	0	2%
Total		571	357	67	74	68	4	
Total Operations Expenses		1,241,917						
- Demand		281,369	142,348	36,159	39,519	60,092	3,251	
- Customer		939,276	624,748	107,545	119,510	82,077	5,397	
- Commodity		21,272	9,278	2,328	3,011	6,335	319	
Total	_	1,241,917	776,374	146,032	162,039	148,505	8,968	
Maintanana Funana								
Maintenance Expense 885 Supervision & Engineering	<u> </u>	-					Г	DP
- Demand	DP_D	-	-	-	-	_	-	24%
- Customer	DP_C	-	-	-	-	-	_	76%
- Commodity		-	-	-	-	_	-	0%
Total		-	-	-	-	-	-	
886 Structures - Improvements							п	DP
·	DD D	<u> </u>					ŀ	
- Demand	DP_D	-	-	-	-	-	-	24%
- Customer	DP_C	-	-	-	-	-	-	76%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	

Second Factor Company RS S65 MGS LGS IN Factor	Liberty Utilities (SEMO) Allocation of O&M Expenses	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
DP_D									Factor
DP_D									
Customer DP_C 12,441 7,928 1,418 1,891 1,110 94 75%									
Commodity									
Total		DP_C	12,441	7,928	1,418	•	1,110	94	
Sea									0%
Demand	Total		16,276	9,868	1,910	2,430	1,929	139	
Customer Commodity Commo	888 Compressor Station Eqiupment	_						Ī	DP
- Customer - Commodity	- Demand	DP_D	-	-	-	-	-	-	24%
Seg Sea	- Customer		-	-	-	-	-	-	76%
Sego Meas. & Reg. Sta. Equip Industrial Sego Meas. & Reg. Sta. Equip Industrial Sego Meas. & Reg. Sta. Equip Industrial Sego Meas. & Reg. Sta. Equip Commodity Sego Meas. & Reg. Sta. Equip City Gate Sego Meas. & Reg.	- Commodity		-	-	-	-	-	-	0%
- Demand - Customer - MIL 0% 0%	Total		-	-	-	-	-	-	
- Customer - Commodity - Customer	890 Meas. & Reg. Sta. Equip Industrial		-					Г	CUS
- Customer - Commodity - Customer	- Demand	_	-	-	-	-	-	-	0%
Commodity		MIL	-	-	-	-	-	-	100%
Note			-	-	-	-	-	-	
Demand			-	-	-	-	-	-	
Demand	891 Meas. & Reg. Sta. Equip City Gate		-					Ī	DP
- Customer		DP D		-	-	-	_	_	24%
- Commodity 0% Total		_	_	-	-	-	_	-	
Total			-	-	-	-	-	-	
- Demand 0% - Customer			-	-	-	-	-	-	
- Demand 0% - Customer - SV 18,308 14,970 1,891 1,262 163 22 100% - Commodity	892 Services		18.308					Г	CUS
- Customer SV 18,308 14,970 1,891 1,262 163 22 100% - Commodity Total 18,308 14,970 1,891 1,262 163 22 893 Meter & House Regulators - Demand				_	_	_	_	_	
- Commodity Total 0% Total 18,308 14,970 1,891 1,262 163 22 CUS - Demand - Customer - M&R 0% M&R 0% - Commodity 0% - Commodity 0% 0% 0% 0% 0% 0% 0% 0% 0%		SV							
Total 18,308 14,970 1,891 1,262 163 22 893 Meter & House Regulators - - - - - - - - - 0% - Demand - Customer - Customer - Commodity M&R - - - - - - - - 0% - 100% - 0% - 0% 0% - 0% - 0% 0% - 0% - 0% 0% - 0% - 0% 0% 0% 0% - 0% <td></td> <td>.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		.							
- Demand 0% - Customer M&R 100% - Commodity 0%	•		18,308				163	22	0,0
- Demand 0% - Customer M&R 100% - Commodity 0%	893 Meter & House Regulators		_					Г	CUS
- Customer M&R 100% - Commodity 0%				_	_	_	_	_	
- Commodity 0%		M&R	-	-	-	-	-		
		WICH	-	-	-	-			
LOTAL E E E	Total		-		-				070

iberty Utilities (SEMO)	Alleranter	*	Basidanai d	Small	Medium	Large	-	Claratic and
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
94 Other Equipment		-					Г	DP
- Demand	DP_D	=	-	-	-	-	-	24%
- Customer	DP_C	-	-	-	-	-	-	76%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
95 Other Equipment		-					Г	DP
- Demand	DP_D	-	-	-	-	-	- 1	24%
- Customer	DP_C	-	-	-	-	-	-	76%
- Commodity	_	-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
otal Maintenance Expense		34,584						
- Demand	 -	3,835	1,940	493	539	819	44	
- Customer		30,749	22,898	3,309	3,153	1,274	116	
- Commodity		-	-	-	-	-	-	
otal	_	34,584	24,838	3,801	3,692	2,093	161	
otal Distribution O&M Expenses		1,276,501						
- Demand		285,204	144,288	36,651	40,057	60,911	3,296	
- Customer		970,026	647,645	110,854	122,663	83,350	5,513	
- Commodity		21,272	9,278	2,328	3,011	6,335	319	
otal	_	1,276,501	801,212	149,833	165,731	150,597	9,128	
ustomer Account Expense								
01 Supervision		-						CUS
- Demand		-	-	-	-	-	- 1	0%
- Customer	В	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
02 Meter Reading Expenses		205,591					Г	CUS
- Demand		-	-	-	-	_	- 1	0%
- Customer	MQ	205,591	180,057	21,827	3,512	175	20	100%
- Commodity		-	-	-	-	-	- 1	0%
otal		205,591	180,057	21,827	3,512	175	20	

berty Utilities (SEMO)				Small	Medium	Large		al 161
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
03 Customer Records & Collection Expenses		971,224						CUS
	_						-	
- Demand	0035	-	-	-	-	-	-	0%
- Customer	903Expense	971,224	852,073 -	101,474 -	16,338	1,219	120	100% 0%
- Commodity otal		971,224	852,073	101,474	16,338	1,219	120	0%
otai		971,224	852,073	101,474	10,338	1,219	120	
04 Uncollectible Accounts		205,469						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	904Expense	205,469	196,830	1,547	3,167	3,714	211	100%
- Commodity		-	-	-	-	-	-	0%
otal		205,469	196,830	1,547	3,167	3,714	211	
0514: 0							-	CLIC
05 Misc. Customer Accounts Expenses		-						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	EXP_902-904_C	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
otal Customer Account Expenses		1,382,284						
- Demand		-	-	-	-	-	-	
- Customer		1,382,284	1,228,960	124,848	23,017	5,108	351	
- Commodity		-	-	-	-	-		
otal		1,382,284	1,228,960	124,848	23,017	5,108	351	
	ī							
ustomer Service Expenses 07 Supervision	l	_						CUS
- Demand			_	_	_	_	_	0%
- Customer	В	_	_	_	_	_	_	100%
- Commodity		_	-	-	-	-	_	0%
otal		-	-	-	-	-	-	0/0
							-	
08 Customer Assistance Expenses		73,566						CUS
- Demand		-	-	-	-	-		0%
- Customer	В	73,566	64,447	7,799	1,239	73	8	100%
- Commodity		-	_	_	-	_	- 1	0%

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TAB NAME: Alloc O&M

<u>liberty Utilities (SEMO)</u> Allocation of O&M Expenses	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
909 Informational and Instructional Ad	lyorticing Evnoncoc	14,273						CUS
		14,273			_		-	0%
- Demand - Customer	В	14 272	-	- 1.512		- 14	-	100%
- Customer - Commodity	В	14,273	12,504 -	1,513 -	240	14	2	0%
Fotal		14,273	12,504	1,513	240	14	2	076
U.G.		2.,2.3	12,50	2,020	2.0		_	
10 Misc Customer Service & Informat	tional Expenses							CUS
- Demand		-	-	-	-	-	-	0%
- Customer	В	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
otal	<u> </u>	-	-	-	-	-	-	
otal Customer Service Expenses		87,839						
- Demand		-	-	-	-	-	_	
- Customer		87,839	76,951	9,313	1,480	87	10	
- Commodity		-	-	-	-	-	-	
otal	_	87,839	76,951	9,313	1,480	87	10	
Sales Promotion Expenses								
211 Supervision	-	-						CUS
- Demand		_	-	-	-	-	-	0%
- Customer	В	-	-	-	-	-	_	100%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
12 Demonstrating & Selling Expenses		_						CUS
- Demand							_	0%
- Customer	В	-	-	-	-	-		100%
- Commodity	В	-				_		0%
otal								076
								
13 Advertising		937						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	В	937	821	99	16	1	0	100%
- Commodity		-	-	-	-	-	-	0%
otal	<u> </u>	937	821	99	16	1	0	

<u>Liberty Utilities (SEMO)</u> Allocation of O&M Expenses	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
915 Supervision								CUS
- Demand								0%
- Customer	В	_	_	_	_	_		100%
- Commodity	, and the second	-	_	-	-	_	-	0%
Total		-	-	-	-	-	-	
916 Miscellaneous Sales Expense		_						CUS
- Demand			_	_	_	_	_	0%
- Customer	В			_		-	-	100%
- Commodity	, , ,	_	_	_	-	_	_	0%
Total		-	-	-	-	-	-	0,0
Tatal Calca Surveya		027						
Total Sales Expense	_	937						
- Demand		937	- 821	- 99	- 16	- 1	-	
- Customer- Commodity		937	821	99	-	1	0	
Total	_	937	821	99	16	1	0	
_								
Administrative & General Expense								
Operations 920 Administrative and general salaries	_	1,117,011						OM(F)
- Demand	OM(F) D	115,949	58,660	14,900	16,285	24,763	1,340	10%
- Customer	OM(F)_C	992,415	794,545	99,650	59,834	35,998	2,388	89%
- Commodity	OM(F)_E	8,648	3,772	946	1,224	2,576	130	1%
Total	, , ,	1,117,011	856,977	115,497	77,343	63,337	3,858	
921 Office Supplies & Expense		449,220						OM(F)
- Demand	OM(F)_D	46,630	23,591	5,992	6,549	9,959	539	10%
- Customer	OM(F)_C	399,112	319,536	40,075	24,063	14,477	960	89%
- Commodity	OM(F)_E	3,478	1,517	381	492	1,036	52	1%
Total	\(\frac{1}{2}\)	449,220	344,644	46,449	31,104	25,472	1,551	
922 Administrative expense Transferred		(237,583)						OM(F)
- Demand	OM(F)_D	(24,662)	(12,477)	(3,169)	(3,464)	(5,267)	(285)	10%
- Customer	OM(F)_C	(211,082)	(168,996)	(21,195)	(12,726)	(7,657)	(508)	89%
- Commodity	OM(F)_E	(1,839)	(802)	(201)	(260)	(548)	(28)	1%
Total	(/	(237,583)	(182,275)	(24,566)	(16,450)	(13,472)	(820)	

Liberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
							-	21.1(5)
923 Outside Services		1,229,069						OM(F)
- Demand	OM(F)_D	127,580	64,544	16,395	17,919	27,248	1,474	10%
- Customer	OM(F)_C	1,091,973	874,253	109,647	65,836	39,610	2,627	89%
- Commodity	OM(F)_E	9,515	4,150	1,041	1,347	2,834	143	1%
Total		1,229,069	942,948	127,083	85,102	69,691	4,245	
224 Property Insurance - Debits		99,330						OM(F)
- Demand	OM(F)_D	10,311	5,216	1,325	1,448	2,202	119	10%
- Customer	OM(F)_C	88,250	70,655	8,861	5,321	3,201	212	89%
- Commodity	OM(F)_E	769	335	84	109	229	12	1%
Fotal .		99,330	76,207	10,271	6,878	5,632	343	
925 Injuries and Damages		_						OM(F)
- Demand	OM(F)_D		_	_	_	_	_	10%
- Customer	OM(F)_C	_				_		89%
- Commodity	OM(F)_E	_	_	_	_	_	_	1%
Total	OWI(I)_L	-	-	-	-	-	-	170
							-	
926 Employee Welfare/Pensions		970,938						OM(F)
- Demand	OM(F)_D	100,786	50,989	12,952	14,156	21,525	1,165	10%
- Customer	OM(F)_C	862,635	690,641	86,619	52,009	31,291	2,076	89%
- Commodity	OM(F)_E	7,517	3,279	823	1,064	2,239	113	1%
Fotal		970,938	744,908	100,393	67,229	55,055	3,353	
927 Franchise Requirements		-						OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	10%
- Customer	OM(F)_C	-	-	-	-	-	-	89%
- Commodity	OM(F)_E	-	-	-	-	-	-	1%
otal		-	-	-	-	-	-	
128 Regulatory Commission Expense		68,287						OM(F)
- Demand	OM(F)_D	7,088	3,586	911	996	1,514	82	10%
- Customer	OM(F)_C	60,670	48,573	6,092	3,658	2,201	146	89%
- Commodity	OM(F)_E	529	231	58	75	157	8	1%
Fotal	····(· /	68,287	52,390	7,061	4,728	3,872	236	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Alloc O&M

<u>.iberty Utilities (SEMO)</u>				Small	Medium	Large		
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
929 Duplicate Charges		-						OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	10%
- Customer	OM(F)_C	-	-	-	-	-	-	89%
- Commodity	OM(F)_E	-	-	-	-	-	-	1%
otal		-	-	-	-	-	-	
30 Miscellaneous General		-						OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	10%
- Customer	OM(F)_C	-	-	-	-	-	-	89%
- Commodity	OM(F)_E	-	-	-	-	-	-	1%
otal		-	-	-	-	-	-	
30.1 General Advertising Expenses		-						OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	10%
- Customer	OM(F)_C	-	-	-	-	-	-	89%
- Commodity	OM(F)_E	-	-	-	-	-	-	1%
otal		-	-	-	-	-	-	
30.2 Miscellaneous General		55,242						OM(F)
- Demand	OM(F)_D	5,734	2,901	737	805	1,225	66	10%
- Customer	OM(F)_C	49,080	39,295	4,928	2,959	1,780	118	89%
- Commodity	OM(F)_E	428	187	47	61	127	6	1%
otal		55,242	42,382	5,712	3,825	3,132	191	
31 Rents		120,603						OM(F)
- Demand	OM(F)_D	12,519	6,333	1,609	1,758	2,674	145	10%
- Customer	OM(F)_C	107,150	85,786	10,759	6,460	3,887	258	89%
- Commodity	OM(F)_E	934	407	102	132	278	14	1%
otal		120,603	92,527	12,470	8,351	6,838	416	
otal A&G Expense		3,872,117						
- Demand	·	401,935	203,344	51,652	56,452	85,842	4,645	
- Customer		3,440,204	2,754,288	345,436	207,413	124,788	8,278	
- Commodity		29,978	13,076	3,281	4,243	8,928	450	
otal	_	3,872,117	2,970,708	400,370	268,109	219,558	13,372	
otal O&M Expense	<u></u>	6,619,679						
- Demand	-	687,139	347,632	88,304	96,510	146,753	7,940	
- Customer		5,881,290	4,708,665	590,550	354,589	213,335	14,151	
- Commodity		51,250	22,354	5,609	7,254	15,264	769	
Total		6,619,679	5,078,651	684,463	458,353	375,352	22,861	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

Liberty Utilities (SEMO)	Allegation	Total	Davidantial	Small	Medium	Large	-	Classification
Allocation of Depreciation and Amortization	Allocation Factor	Total Company	Residential RS	General Srv SGS	General Srv MGS	General Srv LGS	Interruptible IN	Classification Factor
Intangible Plant								
301.0 Organization	_	-					Γ	T&D
- Demand	T&D_D		-	_	_	_	_	34%
- Customer	T&D_C	-	-	-	-	_	-	66%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-		-	
302.0 Franchises & Consents		_					Г	T&D
- Demand	T&D_D		_	_		_	_	34%
- Customer	T&D_C	-	_	_	-	_	_	66%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
303.0 Misc. Intangible Plant		_					Г	T&D
- Demand	T&D_D		_	_		_	_	34%
- Customer	T&D_C	_	_	_	_	_	_	66%
- Commodity	-	-	-	-	-	_	_	0%
Total		-	-	-	-	-	-	
T. 11.								
Total Intangible Plant	-							
- Demand - Customer		-	-	-	-	-	-	
- Customer - Commodity		-	-	-	-	-	-	
Total		-	_	-	-	-		
Production Plant								
244 O Livelford Between Con Freedoment								DEM
311.0 Liquified Petroleum Gas Equipment	- (0)							DEM
- Demand - Customer	P(S)	-	-	-	-	-	-	100%
- Customer - Commodity		-	-	-	-	-	-	0% 0%
Total	-	-	-	-	-	-	-	0/0
Total Production Plant		-						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-		
Total		-	-	-	-	-	-	

Liberty Utilities (SEMO) Allocation of Depreciation and Amortization	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
Transmission Plant								
365.0 Land and Land Rights - TP	_						Г	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
865.1 Rights-Of-Way		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
65.2 Rights-of-way - TP		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	_	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
366.0 Structures & Improvements		80						DEM
- Demand	P&A	80	41	10	11	17	1	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
otal		80	41	10	11	17	1	
66.1 Underground Conduit		744						DEM
- Demand	P&A	744	376	96	104	159	9	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
otal		744	376	96	104	159	9	
67.0 Mains - Cathodic Protection		973					Г	DEM
- Demand	P&A	973	492	125	137	208	11	100%
- Customer		-	-	-	-	-	-	0%
- Commodity	_	-	-	-	-	-	-	0%
otal		973	492	125	137	208	11	

Liberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
267.1 Mains Stool		111 147					Г	DEM
367.1 Mains - Steel		111,147	56.004	44.202	45.644	22 722	4 204	
- Demand	P&A	111,147	56,231	14,283	15,611	23,738	1,284	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-		- 44202	- 45.644	- 22.720	- 1 204	0%
Total		111,147	56,231	14,283	15,611	23,738	1,284	
367.2 Mains - Plastic		379						DEM
- Demand	P&A	379	192	49	53	81	4	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		379	192	49	53	81	4	
369.0 Meas. & Reg. Sta. Equipment		15,873					Г	DEM
- Demand	P&A	15,873	8,030	2,040	2,229	3,390	183	100%
- Customer	-		-	-,	-,	-	-	0%
- Commodity	_	-	-	-	-	-	-	0%
Total		15,873	8,030	2,040	2,229	3,390	183	
370.0 Communication Equipment		220					Г	DEM
- Demand	P&A	220	111	28	31	47	3	100%
- Customer		-	-	-	-	-	-	0%
- Commodity	_	-	-	-	-	_	_	0%
Total		220	111	28	31	47	3	
Total Transmission Plant		129,416						
- Demand	_	129,416	65,473	16,631	18,177	27,640	1,495	
- Customer		129,410	-	10,031	-	27,040	-	
- Commodity		-	-	-	-	-	-	
- Commodity Total		129,416	65,473	16,631	18,177	27,640		
TOTAL		123,410	03,473	10,031	10,1//	27,040	1,495	

Pactor Pactor Pactor Pactor Pactor Pactor Pactor	<u>Liberty Utilities (SEMO)</u>				Small	Medium	Large	-	
Demand	Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
OP OP OP OP OP OP OP OP	Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
OP OP OP OP OP OP OP OP									
Demand	Distribution Expense							_	
- Customer Commodity	374.0 Land & Land Rights		<u>-</u>						DP
Commodity	- Demand	DP_D	-	-	-	-	-	-	24%
Total	- Customer	DP_C	-	-	-	-	-	-	76%
Demand	- Commodity	-	-	-	-	-	-	-	0%
Demand	Total		-	-	-	-	-	-	
- Customer DP_C	374.1 T&D Land		-						DP
- Customer DP_C	- Demand	DP D	=	-	-	-	-	-	24%
Commodity			-	-	-	-	-	-	
A A A A A A A A A A	- Commodity		-	-	-	-	-	-	0%
Demand	Total		-	-	-	-	-	-	
Demand	374.2 Land Rights		_						DP
- Customer - Commodity		DP D		_	_	_	_	_	
Commodity			_	_	_	_	_		
Total			_	_	_	_	_		
- Demand	Total			-		-	-	-	0,0
- Demand	375.0 Structures & Improvements		855						DP
- Customer Commodity		DP D		102	26	28	43	2	
- Commodity									
Total 855 518 100 128 101 7 376.0 Mains - Cathodic Protection 18,750 - Demand P&A 8,555 4,328 1,099 1,202 1,827 99 46% - Customer P&A 10,195 5,158 1,310 1,432 2,177 118 54% - Commodity 0% Total 18,750 9,486 2,410 2,633 4,004 217 376.1 Mains - Steel 115,734 - Demand P&A 52,807 26,716 6,786 7,417 11,278 610 46% - Customer P&A 62,927 31,836 8,087 8,838 13,439 727 54% - Commodity 0%									
- Demand P&A 8,555 4,328 1,099 1,202 1,827 99 46% Customer P&A 10,195 5,158 1,310 1,432 2,177 118 54% Commodity	Total			518	100	128	101	7	0 70
- Demand P&A 8,555 4,328 1,099 1,202 1,827 99 46% Customer P&A 10,195 5,158 1,310 1,432 2,177 118 54% Commodity	376 0 Mains - Cathodic Protection		18.750						DISMAIN
- Customer - Commodity		Ρ&Δ		4 328	1 099	1 202	1 827	99	
- Commodity Total 0% 18,750 9,486 2,410 2,633 4,004 217 - 376.1 Mains - Steel - DEMAND - Demand - Customer - Customer - Commodity 0% - Commodity 0%									
Total 18,750 9,486 2,410 2,633 4,004 217 376.1 Mains - Steel 115,734			•			•			
- Demand P&A 52,807 26,716 6,786 7,417 11,278 610 46% - Customer P&A 62,927 31,836 8,087 8,838 13,439 727 54% - Commodity 0%	Total							217	0,0
- Demand P&A 52,807 26,716 6,786 7,417 11,278 610 46% - Customer P&A 62,927 31,836 8,087 8,838 13,439 727 54% - Commodity 0%	376.1 Mains - Steel		115.734						DISMAIN
- Customer P&A 62,927 31,836 8,087 8,838 13,439 727 54% - Commodity 0%	•	Ρ&Δ		26 716	6 786	7 <u>4</u> 17	11 278	610	
- Commodity 0%			-				•		
					•	•			
	Total		115,734	58,551	14,873	16,255	24,718	1,337	3,0

TAB NAME: Alloc Depre Exp

Liberty Utilities (SEMO)				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
376.2 Mains - Plastic		172,262					Г	DISMAIN
- Demand	P&A	78,600	39,764	10,101	11,039	16,787	908	46%
- Customer	P&A	93,663	47,385	12,037	13,155	20,004	1,082	54%
- Commodity	-	-	-	-	-	-	-	0%
Total		172,262	87,150	22,137	24,195	36,790	1,991	070
377.0 Compressor Station Equipment - DP		-					Г	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
378.0 Meas. & Reg. Sta. Eq-General		23,724					Ī	DEM
- Demand	P&A	23,724	12,002	3,049	3,332	5,067	274	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
- Total		23,724	12,002	3,049	3,332	5,067	274	
379.0 Meas. & Reg City Gate		48,861					Г	DEM
- Demand	P&A	48,861	24,719	6,279	6,863	10,435	565	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	=	-	-	0%
Total		48,861	24,719	6,279	6,863	10,435	565	
380.0 Services	_	637,849					Г	CUS
- Demand	-	-	-	-	-	-	- [0%
- Customer	SV	637,849	521,541	65,882	43,958	5,696	771	100%
- Commodity	-	-	-	-	-	-	-	0%
Total	·	637,849	521,541	65,882	43,958	5,696	771	·

.iberty Utilities (SEMO) Allocation of Depreciation and	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
381.0 Meters		143,758					Г	CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	143,758	88,212	15,398	33,556	5,724	868	100%
- Commodity	-	-	-	-	-	-	-	0%
Fotal		143,758	88,212	15,398	33,556	5,724	868	
382.0 Meter Installations		209,649					Г	CUS
- Demand	-	-	-	-	-	_	-	0%
- Customer	MI	209,649	128,644	22,456	48,936	8,348	1,266	100%
- Commodity	-	-	-	-	-	-	-	0%
Fotal	<u> </u>	209,649	128,644	22,456	48,936	8,348	1,266	
83.0 House Regulators		65,683					Г	CUS
- Demand	-	-	-	-	-	_	-	0%
- Customer	R	65,683	33,990	11,605	18,163	1,749	177	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		65,683	33,990	11,605	18,163	1,749	177	
84.0 House Regulators Installations		19,232					Г	CUS
- Demand	-	-	-	-	-	_	_	0%
- Customer	R	19,232	9,953	3,398	5,318	512	52	100%
- Commodity	-		-	-	-	-	-	0%
otal	<u> </u>	19,232	9,953	3,398	5,318	512	52	
85.0 Ind. Meas. & Reg. Sta. Equip		18,179					Г	CUS
- Demand	-	=	-	-	-	-	-	0%
- Customer	MIL	18,179	-	-	-	15,786	2,393	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		18,179	-	-	-	15,786	2,393	
87.0 Other Equipment - DP		-						DP
- Demand	DP_D	_	-	-	-	_	-	24%
- Customer	DP_C	-	-	-	-	-	-	76%
- Commodity	-	-	-	-	-	-	-	0%
otal ,	<u> </u>	-	-	-	-	-	-	
otal Distribution Plant		1,474,537						
- Demand	_	212,749	107,632	27,340	29,881	45,437	2,458	
- Customer		1,261,788	867,134	140,247	173,455	73,493	7,458	
- Commodity		-	-	-	-	-	-	
otal	_	1,474,537	974,767	167,587	203,336	118,930	9,917	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Alloc Depre Exp

<u>Liberty Utilities (SEMO)</u> Allocation of Depreciation and	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
General Plant Expense							-	T0.D
389.0 Land & Land Rights		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity	-	=	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
390.0 Structures & Improvements		104,487						T&D
- Demand	T&D_D	35,314	17,866	4,538	4,960	7,542	408	34%
- Customer	T&D_C	69,173	44,079	7,881	10,516	6,172	525	66%
- Commodity	-	-	-	-	-	-	-	0%
Total		104,487	61,944	12,420	15,475	13,714	933	
390.1 Structures & Improvements - Structu	re Frame - GP	_						T&D
- Demand	T&D_D		_	_	_	_	_	34%
- Customer	T&D_C	_	_			_		66%
- Commodity	- T&D_C	_	_	_	_	_	_	0%
Total		_	_	_	_	_	_	0,0
. Otta								
390.2 General - Improvements	<u> </u>	<u> </u>						T&D
- Demand	T&D_D	-	-	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity	-	-	-	-	-	-	-	0%
Гotal		-	-	-	-	-	-	
390.3 Improvements		1,468						T&D
- Demand	T&D_D	496	251	64	70	106	6	34%
- Customer	T&D_C	972	619	111	148	87	7	66%
- Commodity	-	-	-	-	-	-	- 1	0%
Total		1,468	871	175	217	193	13	
391.0 Office Furniture & Equipment		36,308						T&D
	TOD		6 200	1 577	1 724	2 621	142	34%
- Demand - Customer	T&D_D T&D_C	12,271 24,037	6,208 15,317	1,577 2,739	1,724 3,654	2,621 2,145	182	34% 66%
			· ·	· ·	•	· ·		
- Commodity	=	-	-	-	-	-	-	0%

21,525

36,308

4,766

324

TAB NAME: Alloc Depre Exp

5,378

4,316

Total

<u>Liberty Utilities (SEMO)</u>				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
392.0 Transportation Equipment		2,298					Г	T&D
- Demand	T&D_D	777	393	100	109	166	9	34%
- Customer	T&D_C	1,521	969	173	231	136	12	66%
- Commodity	-	-	-	-	-	-	-	0%
Total		2,298	1,362	273	340	302	21	
392.1 Transportation Equipment<12		104,018					Г	T&D
- Demand	T&D_D	35,155	17,786	4,518	4,938	7,508	406	34%
- Customer	T&D_C	68,863	43,881	7,846	10,468	6,145	522	66%
- Commodity	-	-	-	-	-	-	-	0%
Total		104,018	61,667	12,364	15,406	13,653	929	
393.0 Stores Equipment - GP		14					Г	T&D
- Demand	T&D_D	5	2	1	1	1	О	34%
- Customer	T&D_C	9	6	1	1	1	0	66%
- Commodity	-	-	-	-	-	-	-	0%
Total		14	8	2	2	2	0	
394.0 Tools, Shop, & Garage Equip.		26,010					Ī	T&D
- Demand	T&D_D	8,791	4,447	1,130	1,235	1,877	102	34%
- Customer	T&D_C	17,219	10,973	1,962	2,618	1,537	131	66%
- Commodity	-	-	-	-	-	-	-	0%
Total	-	26,010	15,420	3,092	3,852	3,414	232	
395.0 Laboratory Equipment - GP		41					Г	T&D
- Demand	T&D_D	14	7	2	2	3	О	34%
- Customer	T&D_C	27	17	3	4	2	0	66%
- Commodity	-	-	-	-	-	-	-	0%
Total		41	25	5	6	5	0	
396.0 Power Operated Equipment - GP		3,227					Г	T&D
- Demand	T&D_D	1,091	552	140	153	233	13	34%
- Customer	T&D_C	2,136	1,361	243	325	191	16	66%
- Commodity	=	-	-	-	-	-	-	0%
Total		3,227	1,913	384	478	424	29	

Liberty Utilities (SEMO Region) Cost of Service Study

12 Months	Ending 1	lune 30	. 2017
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iberty Utilities (SEMO)				Small	Medium	Large		
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
96.1 Ditchers		429						T&D
- Demand	T&D_D	145	73	19	20	31	2	34%
- Customer	T&D_C	284	181	32	43	25	2	66%
- Commodity		-	-	-	-	-	-	0%
otal		429	254	51	64	56	4	
96.2 Backhoes		214						T&D
- Demand	T&D_D	72	37	9	10	15	1	34%
- Customer	T&D_C	142	90	16	22	13	1	66%
- Commodity		-	-	-	-	-	-	0%
otal	<u> </u>	214	127	25	32	28	2	
96.3 Ditches - Group		_						T&D
- Demand	T&D_D	-	-	-	-	_	_	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity		-	-	-	-	-	-	0%
otal	<u> </u>	-	-	_	-	-	-	
97.0 Communication Equipment		534						T&D
- Demand	T&D_D	180	91	23	25	39	2	34%
- Customer	T&D_C	353	225	40	54	32	3	66%
- Commodity		-	-	-	-	-	-	0%
otal		534	316	63	79	70	5	
97.2 GEN-Comm Eq. Fixed Radios		493						T&D
- Demand	T&D_D	167	84	21	23	36	2	34%
- Customer	T&D_C	327	208	37	50	29	2	66%
- Commodity		-	-	-	-	-	-	0%
otal		493	292	59	73	65	4	
97.3 GEN-Comm Eq. Telemetering		144						T&D
- Demand	T&D_D	49	25	6	7	10	1	34%
- Customer	T&D_C	96	61	11	15	9	1	66%
- Commodity		-	-	-	-	-	-	0%
otal		144	86	17	21	19	1	
97.5 Communication Equipment		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity	_	-	-	-	-	-	-	0%
, Fotal		-	-	-	-	-	-	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

iberty Utilities (SEMO)				Small	Medium	Large		
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
98.0 Miscellaneous Equipment		24,695						T&D
- Demand	T&D_D	8,346	4,222	1,073	1,172	1,783	96	34%
- Customer	T&D_C	16,349	10,418	1,863	2,485	1,459	124	66%
- Commodity	-	-	-	-	-	-	-	0%
otal		24,695	14,640	2,935	3,658	3,241	220	
99.0 OTH-Other Tangible Property		9,305					Г	T&D
- Demand	T&D_D	3,145	1,591	404	442	672	36	34%
- Customer	T&D_C	6,160	3,926	702	937	550	47	66%
- Commodity		-	-	-	-	-	′	0%
otal		9,305	5,517	1,106	1,378	1,221	83	
99.1 OTH-Oth Tang Prop - Servers - H/W		2,035					П	T&D
- Demand	T&D D	688	348	88	97	147	8	34%
- Customer	_		348 858	88 153	205	120	10	66%
	T&D_C	1,347	030	155	205	120	10	
- Commodity	-			242	301	267	- 10	0%
otal		2,035	1,206	242	301	267	18	
99.3 OTH-Oth Tang Prop - Network - H/W		23,397						T&D
- Demand	T&D_D	7,908	4,001	1,016	1,111	1,689	91	34%
- Customer	T&D_C	15,490	9,870	1,765	2,355	1,382	117	66%
- Commodity	-	-	-	-	-	-	-	0%
otal		23,397	13,871	2,781	3,465	3,071	209	
99.4 Oth Tang Prop - PC Hardward		204,508					Г	T&D
- Demand	T&D_D	69,118	34,968	8,882	9,708	14,762	799	34%
- Customer	T&D C	135,390	86,274	15,426	20,582	12,081	1,027	66%
- Commodity		-	-	-	-	· -	-	0%
otal	<u> </u>	204,508	121,242	24,308	30,290	26,843	1,826	
99.5 OTH-Oth Tang Prop - PC Software		855,939					Г	T&D
- Demand	T&D_D	289,284	146,352	37,176	40,630	61,783	3,343	34%
- Customer	T&D_C	566,655	361,087	64,563	86,142	50,563	4,298	66%
- Commodity	T&D_C	300,033	-	-	-	-	4,236	0%
otal	-	855,939	507,440	101,739	126,773	112,346	7,641	0/0
Ottai		655,555	307,440	101,739	120,773	112,340	7,041	
otal General Plant	_	1,399,566						
- Demand		473,015	239,304	60,787	66,436	101,022	5,466	
- Customer		926,551	590,422	105,569	140,853	82,678	7,028	
- Commodity	_	-	-	-	-	-		
Total		1,399,566	829,727	166,356	207,289	183,700	12,494	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>Liberty Utilities (SEMO)</u>				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
AD Not Reflected in Subledger		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	34%
- Customer	T&D_C	-	-	-	-	-	-	66%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Proforma Adjustments								
AMR Addition		265,129						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	265,129	162,687	28,398	61,886	10,557	1,601	100%
- Commodity	-	-	-	-	-	-	-	0%
Total		265,129	162,687	28,398	61,886	10,557	1,601	
Vehicle Additions		122,300						T&D
- Demand	T&D_D	41,334	20,911	5,312	5,805	8,828	478	34%
- Customer	T&D_C	80,966	51,594	9,225	12,308	7,225	614	66%
- Commodity	-	-	-	-	-	-	-	0%
Total		122,300	72,505	14,537	18,114	16,052	1,092	
PVC & Steel Mains Replacement		17,670						DISMAIN
- Demand	P&A	8,062	4,079	1,036	1,132	1,722	93	46%
- Customer	P&A	9,608	4,861	1,235	1,349	2,052	111	54%
- Commodity	-	-	-	-	-	-	-	0%
Total		17,670	8,939	2,271	2,482	3,774	204	
Rate Case Expense		174,042						T&D
- Demand	T&D_D	79,412	40,175	10,205	11,153	16,960	918	46%
- Customer	T&D_C	94,631	60,301	10,782	14,386	8,444	718	54%
- Commodity	-	-	-	-	-	-	-	0%
Total		174,042	100,476	20,987	25,539	25,404	1,635	
Kirksville Shop		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	46%
- Customer	T&D_C	-	-	-	-	-	-	54%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	

<u> Liberty Utilities (SEMO)</u>				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Merit Increases		5,328						T&D
- Demand	T&D_D	2,431	1,230	312	341	519	28	46%
- Customer	T&D_C	2,897	1,846	330	440	258	22	54%
- Commodity		-	-	-	-	-		0%
Total		5,328	3,076	642	782	778	50	
/acant Positions		3,751						T&D
- Demand	T&D_D	1,711	866	220	240	366	20	46%
- Customer	T&D_C	2,039	1,300	232	310	182	15	54%
- Commodity		-	-	-	-	-	-	0%
Total		3,751	2,165	452	550	547	35	
CAM Adjustments		(5,824)						T&D
- Demand	T&D_D	(2,657)	(1,344)	(341)	(373)	(568)	(31)	46%
- Customer	T&D_C	(3,166)	(2,018)	(361)	(481)	(283)	(24)	54%
- Commodity		-	-	-	-	-	-	0%
Total		(5,824)	(3,362)	(702)	(855)	(850)	(55)	
Depreciation Study		660,455						T&D
- Demand	T&D_D	301,351	152,457	38,726	42,325	64,360	3,482	46%
- Customer	T&D_C	359,104	228,830	40,915	54,591	32,043	2,724	54%
- Commodity		-	-	, =	, -	-	-	0%
Fotal	<u> </u>	660,455	381,287	79,642	96,916	96,403	6,206	
EE Reg Asset Adjustment		20,055						OM(F)
- Demand	OM(F)_D	2,082	1,053	268	292	445	24	10%
- Customer	OM(F) C	17,818	14,265	1,789	1,074	646	43	89%
- Commodity	OM(F) E	155	68	17	22	46	2	1%
rotal		20,055	15,386	2,074	1,389	1,137	69	
Fotal Adjustments		1,262,906						
- Demand		433,726	219,427	55,738	60,918	92,631	5,012	
- Customer		829,024	523,666	92,546	145,863	61,126	5,824	
- Commodity		155	68	17	22	46	2	
, Total		1,262,906	743,161	148,301	206,803	153,803	10,838	

TAB NAME: Alloc Depre Exp

Liberty Utilities (SEMO) Allocation of Depreciation and Amortization	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
Amortization - Regulatory Asset		4,640						OM(F)
- Demand	OM(F)_D	482	244	62	68	103	6	10%
- Customer	OM(F)_C	4,122	3,300	414	249	150	10	89%
- Commodity	OM(F)_E	36	16	4	5	11	1	1%
Total		4,640	3,560	480	321	263	16	
Total Depreciation and Amortization	<u></u>	4,271,065						
- Demand		1,249,388	632,081	160,558	175,479	266,833	14,438	
- Customer		3,021,485	1,984,523	338,776	460,420	217,446	20,320	
- Commodity		191	83	21	27	57	3	
Total		4,271,065	2,616,687	499,355	635,926	484,336	34,761	

Liberty Utilities (SEMO Region) **Cost of Service Study**

12 Months	Fnding	lune	30	2017
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<u>Liberty Utilities (SEMO)</u>				Small	Medium	Large		
Allocation of Taxes Other Than Income	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Social Security Taxes/Employee Benefit (FICA)		150,375						OT
- Demand	OT_D	42,019	21,258	5,400	5,902	8,974	486	28%
- Customer	OT_C	108,065	73,276	11,947	13,950	8,212	680	72%
- Commodity	OT_E	291	127	32	41	87	4	0%
Total		150,375	94,661	17,379	19,893	17,273	1,170	
Federal Unemployment		1,326					Г	OT
- Demand	OT_D	371	188	48	52	79	4	28%
- Customer	OT_C	953	646	105	123	72	6	72%
- Commodity	OT_E	3	1	0	0	1	0	0%
Total		1,326	835	153	175	152	10	
State Unemployment		4,147					Г	OT
- Demand	OT_D	1,159	586	149	163	247	13	28%
- Customer	OT_C	2,980	2,021	329	385	226	19	72%
- Commodity	OT_E	8	4	1	1	2	0	0%
Total		4,147	2,611	479	549	476	32	
Allocated Taxes Other		29,700					Ī	OT
- Demand	OT_D	8,299	4,199	1,066	1,166	1,772	96	28%
- Customer	OT_C	21,343	14,472	2,360	2,755	1,622	134	72%
- Commodity	OT_E	57	25	6	8	17	1	0%
Total		29,700	18,696	3,432	3,929	3,411	231	
Ad Valorem	_	582,857					Г	TOTPLT
- Demand	Plant_Total_D	186,032	94,116	23,907	26,129	39,731	2,150	32%
- Customer	Plant_Total_C	396,825	251,479	45,014	63,325	34,039	2,967	68%
- Commodity		-	-	-	-	-	-	0%
Total		582,857	345,595	68,921	89,454	73,770	5,117	
Proforma Adjustments TOTI	_	181,731					Г	ОТ
- Demand	OT_D	50,781	25,691	6,526	7,132	10,845	587	28%
- Customer	OT_C	130,598	88,555	14,438	16,859	9,924	822	72%
- Commodity	OT_E	352	153	38	50	105	5	0%
Total		181,731	114,399	21,003	24,041	20,875	1,414	
Total Taxes Other Than Income		950,136						
- Demand		288,661	146,037	37,096	40,543	61,650	3,336	
- Customer		660,764	430,449	74,194	97,397	54,096	4,628	
- Commodity		711	310	78	101	212	11	
Total	_	950,136	576,797	111,367	138,040	115,957	7,974	

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>Liberty Utilities (SEMO)</u> Allocation of Income Taxes	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN
Income Tax Calculation Operating Revenues		12,885,046	7,606,347	945,237	1,935,198	2,269,512	128,752
Operating Expenses							
O&M Expenses		6,619,679	5,078,651	684,463	458,353	375,352	22,861
Depreciation & Amortization		4,271,065	2,616,687	499,355	635,926	484,336	34,761
Taxes Other than Income		950,136	576,797	111,367	138,040	115,957	7,974
Interest on Customer Deposits	CD	50,119	43,955	5,319	845		
Total Expenses excl. Income Taxes		11,890,999	8,316,089	1,300,505	1,233,164	975,645	65,596
Net Income before Taxes & Interest		994,047	(709,742)	(355,268)	702,034	1,293,867	63,156
Less:							
Interest Expense	RB	1,118,073	671,889	131,010	179,623	125,890	9,661
Net Income Before Taxes		(124,026)	(1,381,631)	(486,277)	522,411	1,167,976	53,495
State Taxable Income		(124,026)	(1,381,631)	(486,277)	522,411	1,167,976	53,495
State Taxable Income		(124,026)	(1,381,631)	(486,277)	522,411	1,167,976	53,495
Missouri State Income Tax	5.21%	(6,466)	(72,029)	(25,351)	27,235	60,890	2,789
Federal Taxable Income		(124,026)	(1,381,631)	(486,277)	522,411	1,167,976	53,495
Federal Income Tax	33.18%	(41,146)	(458,360)	(161,324)	173,311	387,480	17,747
Total Income Tax		(47,612)	(530,389)	(186,675)	200,546	448,370	20,536
State Income Tax		(6,466)	(72,029)	(25,351)	27,235	60,890	2,789
Federal Income Tax		(41,146)	(458,360)	(161,324)	173,311	387,480	17,747
Calculated Income Tax		(47,612)	(530,389)	(186,675)	200,546	448,370	20,536
Actual Income Taxes		(47,612)	(530,389)	(186,675)	200,546	448,370	20,536

Liberty Utilities (SEIVIO Region)
Cost of Service Study
12 Months Ending June 30, 2017

<u>Liberty Utilities (SEMO)</u> Summary of Allocators	Description	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN
External Allocators							
В	No. of Bills	100.00%	87.60%	10.60%	1.68%	0.10%	0.01%
CD	Customer Deposits	100.00%	87.70%	10.61%	1.69%	0.00%	0.00%
MQ	Meter Quantity	100.00%	87.58%	10.62%	1.71%	0.09%	0.01%
MI	Meters Investment	100.00%	61.36%	10.71%	23.34%	3.98%	0.60%
R	Regulators	100.00%	51.75%	17.67%	27.65%	2.66%	0.27%
SV	Services	100.00%	81.77%	10.33%	6.89%	0.89%	0.12%
M&R	Meters & Regulators	100.00%	63.20%	11.33%	21.56%	3.41%	0.50%
MRS	Meters, Regulators, Services	100.00%	76.41%	10.62%	11.12%	1.62%	0.23%
903Expense	Account 903 Allocator	100.00%	87.73%	10.45%	1.68%	0.13%	0.01%
904Expense	Account 904 Allocator	100.00%	95.80%	0.75%	1.54%	1.81%	0.10%
MIL	Meter Investment Large	100.00%	0.00%	0.00%	0.00%	86.84%	13.16%
AV	Annual Volume	100.00%	43.62%	10.94%	14.15%	29.78%	1.50%
P(S)	Peak Sales Factor (excl. Transportation)	100.00%	64.72%	16.47%	14.12%	3.58%	1.12%
P(L)	Peak Factor (Large)	100.00%	0.00%	0.00%	0.00%	76.18%	23.82%
P&A W	P&A Winter Sales	100.00%	63.75%	15.59%	14.58%	4.75%	1.33%
P&A	Peak and Average Allocator	100.00%	50.59%	12.85%	14.05%	21.36%	1.16%
CWC	Cash Working Capital Factor	100.00%	63.96%	12.09%	13.32%	9.60%	1.03%
Internal Allocators							
T&D_D	Transmission & Distribution Plant	100.00%	50.59%	12.85%	14.05%	21.36%	1.16%
T&D_C		100.00%	63.72%	11.39%	15.20%	8.92%	0.76%
DP_D	Distribution Plant (excl. 374-375, 387)	100.00%	50.59%	12.85%	14.05%	21.36%	1.16%
DP_C		100.00%	63.72%	11.39%	15.20%	8.92%	0.76%
MS_D	Mains & Services	100.00%	50.59%	12.85%	14.05%	21.36%	1.16%
MS_C		100.00%	67.47%	11.49%	10.17%	10.28%	0.60%

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Allocators

Liberty Utilities (SEIVIO Region)
Cost of Service Study
12 Months Ending June 30, 2017

<u>Liberty Utilities (SEMO)</u> Summary of Allocators	Description	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN
RB	Rate Base	100.00%	60.09%	11.72%	16.07%	11.26%	0.86%
Plant_Total_D Plant_Total_C	Total Plant	100.00% 100.00%	50.59% 63.37%	12.85% 11.34%	14.05% 15.96%	21.36% 8.58%	1.16% 0.75%
Oper_D Oper_C Oper_E	O&M Accounts 871-879	100.00% 100.00% 100.00%	50.59% 66.51% 43.62%	12.85% 11.45% 10.94%	14.05% 12.72% 14.15%	21.36% 8.74% 29.78%	1.16% 0.57% 1.50%
EXP_902-904_C	Account 902-904 Expenses	100.00%	88.91%	9.03%	1.67%	0.37%	0.03%
OM(F)_D OM(F)_C OM(F)_E	Functional O&M Expenses	100.00% 100.00% 100.00%	50.59% 80.06% 43.62%	12.85% 10.04% 10.94%	14.05% 6.03% 14.15%	21.36% 3.63% 29.78%	1.16% 0.24% 1.50%
OT_D OT_C OT_E	Other Taxes (75% T&D, 25% OM)	100.00% 100.00% 100.00%	50.59% 67.81% 43.62%	12.85% 11.06% 10.94%	14.05% 12.91% 14.15%	21.36% 7.60% 29.78%	1.16% 0.63% 1.50%
Derivation of Ext. Allocato B_INPUT	rs	31,356 100.00%	27,469 87.60%	3,324 10.60%	528 1.68%	31 0.10%	3 0.01%
CD_INPUT		31,321 \$ 100.00%	27,469 \$ 87.70%	3,324 \$	528 1.69%	0.00%	0.00%
MQ_INPUT		30,556 \$ 100.00%	26,761 \$ 87.58%		522 \$ 1.71%		
MI_INPUT		5,542,241 \$	3,400,801 \$ 61.36%	593,638 \$ 10.71%	1,293,655 \$ 23.34%	220,689 \$ 3.98%	33,458 0.60%
R_INPUT		1,028,575 \$ 100.00%	532,274 \$ 51.75%	181,725 \$ 17.67%	284,424 \$ 27.65%	27,385 \$ 2.66%	2,767 0.27%

FILE NAME: Liberty (SEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Allocators

Cost of Service Study 12 Months Ending June 30, 2017

<u>Liberty Utilities (SEMO)</u> Summary of Allocators		Total	Residential	Small General Srv		Medium General Srv	Large General Srv	ı	- Interruptible
	Description	Company	RS	SGS		MGS	LGS		IN
SV_INPUT		26,294,828 \$	21,500,147	\$ 2,715,953	\$	1,812,151	\$ 234,796	\$	31,780
		100.00%	81.77%	10.33%	1	6.89%	0.89%		0.12%
M&R_INPUT		10,654,958 \$	6,733,805	\$ 1,206,866	\$	2,297,037	\$ 363,680	\$	53,570
		100.00%	63.20%	11.33%	1	21.56%	3.41%		0.50%
MRS_INPUT		36,949,786	28,233,952	3,922,820		4,109,188	598,476		85,350
		100.00%	76.41%	10.62%	1	11.12%	1.62%		0.23%
903Expense_INPUT		971,224 \$	852,073	\$ 101,474	\$	16,338	\$ 1,219	\$	120
		100.00%	87.73%	10.45%	1	1.68%	0.13%		0.01%
904Expense_INPUT		326,641 \$	312,906	\$ 2,459	\$	5,035	\$ 5,905	\$	335
		100.00%	95.80%	0.75%	1	1.54%	1.81%		0.10%
MIL_INPUT		254,147					\$ 220,689	\$	33,458
		100.00%	0.00%	0.00%	1	0.00%	86.84%		13.16%
AV_INPUT		36,783,781	16,044,302	4,025,648		5,206,401	10,955,357		552,074
		100.00%	43.62%	10.94%	1	14.15%	29.78%		1.50%
P(L)_INPUT		255,381					194,557		60,824
		100.00%	0.00%	0.00%	1	0.00%	76.18%		23.82%
P(S)_INPUT		5,441,629	3,521,941	896,166		768,142	194,557		60,824
		100.00%	64.72%	16.47%)	14.12%	3.58%		1.12%

Cost of Service Study 12 Months Ending June 30, 2017

<u>Liberty Utilities (SEMO)</u>			Small	Medium	Large	-
Summary of Allocators	Total	Residential	General Srv	General Srv	General Srv	Interruptible
Description	Company	RS	SGS	MGS	LGS	IN
P&A W_INPUT						
Peak Month Sales (excl. transportation)	5,441,629	3,521,941	896,166	768,142	194,557	60,824
Winter Volumes (excl. transportation)	22,648,220	14,219,314	3,331,512	3,406,075	1,342,285	349,034
	100.00%	63.75%	15.59%	14.58%	4.75%	1.33%
P&A_INPUT	100.00%	50.59%	12.85%	14.05%	21.36%	1.16%
	100.00%	50.59%	12.85%	14.05%	21.36%	1.16%
CWC_INPUT						
Annual Sales Volume	100.00%	59.14%	14.43%	17.01%	7.38%	2.04%
OM(F)_Total	100.00%	76.72%	10.34%	6.92%	5.67%	0.35%
Other Taxes	100.00%	60.71%	11.72%	14.53%	12.20%	0.84%
T&D_Total	100.00%	59.28%	11.89%	14.81%	13.13%	0.89%
	100.00%	63.96%	12.09%	13.32%	9.60%	1.03%

Classifier Description	Classifier Code	Total	- Demand	- Customer	- Commodity
Classifiers					
Customer Factor	CUS	100.00%	0.00%	100.00%	0.00%
Demand Factor	DEM	100.00%	100.00%	0.00%	0.00%
Commodity Factor	СОМ	100.00%	0.00%	0.00%	100.00%
Distribution Mains Factor	DISMAIN	100.00%	45.63%	54.37%	0.00%
T&D Plant Factor	T&D	100.00%	33.80%	66.20%	0.00%
Distribution Plant Factor	DP	100.00%	23.56%	76.44%	0.00%
Mains and Services Factor	MAINSVC	100.00%	27.79%	72.21%	0.00%
Total Plant Factor	TOTPLT	100.00%	31.92%	68.08%	0.00%
Accounts 871-879 Factor (OPER)	OPER	100.00%	22.66%	75.63%	1.71%
Functional O&M Classifier	OM(F)	100.00%	10.38%	88.85%	0.77%
Cash Working Capital	CWC	100.00%	18.03%	56.73%	25.24%
Other Taxes Classifier	ОТ	100.00%	27.94%	71.86%	0.19%
	_				
Derivations					
376 Distribution Mains	_				
Distribution Mains Factor	DISMAIN	100.00%	45.63%	54.37%	0.00%

TAB NAME: Classifiers

Liberty Utilities (WEMO)					Small	Medium	Large	
COSS Summary	Total	R	Residential		General Srv	General Srv	General Srv	Interruptib
	Company		RS		SGS	MGS	LGS	
Current Delivery Service Rates								
Rate base	 6,912,209		4,304,022		1,091,002	656,484	860,701	
Net operating income	112,546		25,860		(22,724)	51,829	57,580	
Rate of return	1.63%		0.60%		-2.08%	7.89%	6.69%	
Relative rate of return	100%		37%		-128%	485%	411%	
Revenues	\$ 1,919,548	\$	1,276,439	\$	210,880	\$ 183,399	\$ 248,829	
Test Period Usage (CCF)	4,713,793		2,270,699		726,456	494,665	1,221,973	
Revenue per CCF	\$ 0.4072	\$	0.5621	\$	0.2903	\$ 0.3708	\$ 0.2036	
Revenues at Equalized Rates of Return								
Rate of return	 7.640%		7.640%		7.640%	7.640%	7.640%	
Return requirement	528,093		328,827		83,353	50,155	65,758	
Revenue required	2,594,011		1,768,178		383,049	180,682	262,102	
Revenue deficiency	674,463		491,739		172,169	(2,717)	13,273	
Percent increase required	35.1%		38.5%		81.6%	-1.5%	5.3%	
Test Period Usage (CCF)	4,713,793		2,270,699		726,456	494,665	1,221,973	
Revenue Required per CCF	\$ 0.5503	\$	0.7787	\$	0.5273	\$ 0.3653	\$ 0.2145	
Revenue Deficiency per CCF	\$ 0.1431	\$	0.2166	\$	0.2370	\$ (0.0055)	\$ 0.0109	
	Revenue Rec	quirements	<u> </u>]				
Rate Class	Class ROR	0	verall ROR					
Residential	0.60%		1.63%					
Small GS	-2.08%		1.63%					
Medium GS	7.89%		1.63%					
Large GS	6.69%		1.63%					
Interruptible	0.00%		1.63%					

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: COSS Summary

Liberty Utilities (WEMO)			Small	Medium	Large	-
COSS Summary	Total	Residential	General Srv	General Srv	General Srv	Interruptible
	Company	RS	SGS	MGS	LGS	IN
Current Rate of Return	1.63%	0.60%	-2.08%	7.89%	6.69%	
Proposed Rate of Return	7.64%	7.64%	7.64%	7.64%	7.64%	
EROR Revenues	\$ 2,594,011	\$ 1,768,178	\$ 383,049	\$ 180,682	\$ 262,102	
Current Revenues	 1,919,548	 1,276,439	 210,880	 183,399	 248,829	
Difference	\$ 674,463	\$ 491,739	\$ 172,169	\$ (2,717)	\$ 13,273	
% Difference	35.14%	38.52%	81.64%	-1.48%	5.33%	
Derivation of Delivery Revenues						
Current Total Revenues	\$ 1,919,548	1,276,439	210,880	183,399	248,829	
Less: ISRS Reconciliation	180	148	10	9	12	
Less: Misc Other Revenues (Acct 488)	 33,883	 22,531	 3,723	 3,237	 4,392	
Current Delivery Revenues	\$ 1,885,485	\$ 1,253,760	\$ 207,147	\$ 180,153	\$ 244,425	
Total Revenues at EROR	\$ 2,594,011	1,768,178	383,049	180,682	262,102	
Less: ISRS Reconciliation	180	148	10	9	12	
Less: Misc Other Revenues (Acct 488)	 33,883	 22,531	 3,723	 3,237	 4,392	
Delivery Revenues at EROR	\$ 2,559,948	\$ 1,745,499	\$ 379,316	\$ 177,436	\$ 257,697	
Metrics						
Delivery Revenues at EROR	 2,559,948	1,745,499	379,316	177,436	257,697	
Test Period Usage (CCF)	4,713,793	2,270,699	726,456	494,665	1,221,973	
Test Period Customers	3,843	3,277	528	35	4	
Revenue requirement per CCF		\$ 0.77	\$ 0.52	\$ 0.36	\$ 0.21	
Revenue requirement per Customer		\$ 533	\$ 719	\$ 5,118	\$ 70,281	

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

PAGE 2 OF 69 TAB NAME: COSS Summary

Cost of Service Study 12 Months Ending June 30, 2017

<u>Liberty Utilities (WEMO)</u>			Small	Medium	Large	-
Development of Rate of Return	Total	Residential	General Srv	General Srv	General Srv	Interruptible
	Company	RS	SGS	MGS	LGS	IN
Rate Base						
Gas Plant in Service						
- Demand	3,697,678	1,835,604	602,129	341,950	917,995	-
- Customer	8,994,223	6,031,858	1,402,736	759,133	800,496	-
- Commodity	-	-	-	-	-	-
Total	12,691,901	7,867,461	2,004,866	1,101,083	1,718,491	-
less: Depreciation & Amortization						
- Demand	(1,879,155)	(932,851)	(306,001)	(173,778)	(466,524)	-
- Customer	(2,564,621)	(1,753,757)	(402,357)	(172,114)	(236,393)	-
- Commodity	-	-	-	-	-	-
Total	(4,443,776)	(2,686,608)	(708,358)	(345,892)	(702,917)	-
Net Utility Plant in Service						
- Demand	1,818,523	902,752	296,128	168,171	451,471	-
- Customer	6,429,602	4,278,101	1,000,380	587,019	564,103	-
- Commodity	-	-	-	-	-	-
Total	8,248,125	5,180,853	1,296,508	755,190	1,015,574	-
Additions to Rate Base						
- Demand	13,262	7,770	2,068	1,116	2,307	-
- Customer	58,781	41,759	8,273	3,343	5,407	-
- Commodity	315,161	171,953	52,632	30,698	59,878	-
Total	387,204	221,482	62,974	35,156	67,592	-
Reductions to Rate Base						
- Demand	(482,870)	(239,707)	(78,631)	(44,654)	(119,879)	-
- Customer	(1,240,249)	(858,606)	(189,849)	(89,209)	(102,586)	-
- Commodity	-	-	-	-	-	-
Total	(1,723,120)	(1,098,313)	(268,479)	(133,863)	(222,465)	-
Rate Base						
- Demand	1,348,914	670,816	219,566	124,633	333,900	-
- Customer	5,248,134	3,461,253	818,804	501,153	466,923	-
- Commodity	315,161	171,953	52,632	30,698	59,878	-
Total	6,912,209	4,304,022	1,091,002	656,484	860,701	-

TAB NAME: Rate of Return

Cost of Service Study 12 Months Ending June 30, 2017

		Small	Medium	Large	-
Total	Residential	General Srv	General Srv	General Srv	Interruptible
Company	RS	SGS	MGS	LGS	IN
4 005 405	4 252 760	207.4.47	100.153	244 425	
			•	•	-
					-
33,063	22,331	3,723	3,237	4,332	
1,919,548	1,276,439	210,880	183,399	248,829	-
					-
•	•	•		· ·	-
					-
986,834	748,450	130,904	39,631	67,849	-
157,404	78,138	25,632	14,556	39,077	-
499,286	348,143	76,720	38,534	35,889	-
4	2	1	0	1	-
656,693	426,283	102,352	53,091	74,967	-
52,381	26,003	8,530	4,844	13,004	-
129,432	87,264	20,075	10,689	11,403	-
6	3	1	1	1	-
181,818	113,270	28,606	15,534	24,408	-
6,712	5,729	922	61	-	-
(25,056)	(43,153)	(29,182)	23,254	24,025	-
1,807,001	1,250,579	233,603	131,570	191,249	-
112,546	25,860	(22,724)	51,829	57,580	-
1.63%	0.60%	-2.08%	7.89%	6.69%	
	1,885,485	Company RS 1,885,485 1,253,760 180 148 33,883 22,531 1,919,548 1,276,439 125,452 62,277 860,286 685,645 1,096 528 986,834 748,450 157,404 78,138 499,286 348,143 4 2 656,693 426,283 52,381 26,003 129,432 87,264 6 3 181,818 113,270 6,712 5,729 (25,056) (43,153) 1,807,001 1,250,579 112,546 25,860	Total Company Residential RS General Srv SGS 1,885,485 1,253,760 207,147 180 148 10 33,883 22,531 3,723 1,919,548 1,276,439 210,880 125,452 62,277 20,429 860,286 685,645 110,307 1,096 528 169 986,834 748,450 130,904 157,404 78,138 25,632 499,286 348,143 76,720 4 2 1 656,693 426,283 102,352 52,381 26,003 8,530 129,432 87,264 20,075 6 3 1 181,818 113,270 28,606 6,712 5,729 922 (25,056) (43,153) (29,182) 1,807,001 1,250,579 233,603 112,546 25,860 (22,724)	Total Company Residential RS General Srv SGS General Srv MGS 1,885,485 1,253,760 207,147 180,153 180 148 10 9 33,883 22,531 3,723 3,237 1,919,548 1,276,439 210,880 183,399 125,452 62,277 20,429 11,601 860,286 685,645 110,307 27,915 1,096 528 169 115 986,834 748,450 130,904 39,631 157,404 78,138 25,632 14,556 499,286 348,143 76,720 38,534 4 2 1 0 656,693 426,283 102,352 53,091 52,381 26,003 8,530 4,844 129,432 87,264 20,075 10,689 6 3 1 1 181,818 113,270 28,606 15,534 6,712 5,729 922 61 <td>Total Company Residential Residential Company General Srv SGS General Srv MGS General Srv LGS 1,885,485 1,253,760 207,147 180,153 244,425 180 148 10 9 12 33,883 22,531 3,723 3,237 4,392 1,919,548 1,276,439 210,880 183,399 248,829 125,452 62,277 20,429 11,601 31,145 860,286 685,645 110,307 27,915 36,419 1,096 528 169 115 284 986,834 748,450 130,904 39,631 67,849 157,404 78,138 25,632 14,556 39,077 499,286 348,143 76,720 38,534 35,889 4 2 1 0 1 656,693 426,283 102,352 53,091 74,967 52,381 26,003 8,530 4,844 13,004 129,432 87,664</td>	Total Company Residential Residential Company General Srv SGS General Srv MGS General Srv LGS 1,885,485 1,253,760 207,147 180,153 244,425 180 148 10 9 12 33,883 22,531 3,723 3,237 4,392 1,919,548 1,276,439 210,880 183,399 248,829 125,452 62,277 20,429 11,601 31,145 860,286 685,645 110,307 27,915 36,419 1,096 528 169 115 284 986,834 748,450 130,904 39,631 67,849 157,404 78,138 25,632 14,556 39,077 499,286 348,143 76,720 38,534 35,889 4 2 1 0 1 656,693 426,283 102,352 53,091 74,967 52,381 26,003 8,530 4,844 13,004 129,432 87,664

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Rate of Return

Liberty Utilities (WEMO)			Small	Medium	Large	
Summary of Rate of Return	Total	Residential	General Srv	General Srv	General Srv	Interruptib
	Company	RS	SGS	MGS	LGS	
Rate Base						
Gas Plant in Service	12,691,901	7,867,461	2,004,866	1,101,083	1,718,491	
less: Depreciation	(4,443,776)	(2,686,608)	(708,358)	(345,892)	(702,917)	
Net Utility Plant in Service	8,248,125	5,180,853	1,296,508	755,190	1,015,574	
Add:						
Storage Gas	302,077	163,750	50,633	29,647	58,047	
Prepaid Expenses	19,369	14,690	2,569	778	1,332	
Cash Working Capital	52,116	32,696	7,961	4,184	7,275	
Regulatory Asset - Energy Efficiency	13,641	10,346	1,810	548	938	
Total	387,204	221,482	62,974	35,156	67,592	
Less:						
Accumulated Deferred Income Taxes	(1,087,294)	(670,764)	(171,308)	(91,543)	(153,679)	
Rate Base Offset	(486,664)	(300,229)	(76,676)	(40,974)	(68,786)	
Customer Deposits	(149,162)	(127,320)	(20,495)	(1,347)	-	
Customer Advances	(1:3)102/	-	-	-	_	
Total	(1,723,120)	(1,098,313)	(268,479)	(133,863)	(222,465)	
Rate Base	6,912,209	4,304,022	1,091,002	656,484	860,701	
Return Calculation						
Delivery Revenues	1,885,485	1,253,760	207,147	180,153	244,425	
Add: ISRS Reconciliation	180	148	10	9	12	
Add: Misc Other Revenues (Acct 488)	33,883	22,531	3,723	3,237	4,392	
Total Revenues	1,919,548	1,276,439	210,880	183,399	248,829	
less:						
O&M Expense	986,834	748,450	130,904	39,631	67,849	
Depreciation Expense	656,693	426,283	102,352	53,091	74,967	
Taxes other than income	181,818	113,270	28,606	15,534	24,408	
nterest on customer deposits	6,712	5,729	922	61	-	
ncome taxes	(25,056)	(43,153)	(29,182)	23,254	24,025	
Total Operating Expenses	1,807,001	1,250,579	233,603	131,570	191,249	
Net Operating Income	112,546	25,860	(22,724)	51,829	57,580	
Rate of return	1.628%	0.601%	-2.083%	7.895%	6.690%	
Relative rate of return	1.000	0.369	(1.279)	4.849	4.109	

<u>Liberty Utilities (WEMO)</u> Summary of Rate of Return	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible
	Company	RS	SGS	MGS	LGS	· IN
Derivation of Required Revenues						
Net Income after taxes	\$ 528,093	\$ 328,827	\$ 83,353	\$ 50,155	\$ 65,758	
Add: Income Taxes	233,861	145,618	36,912	22,211	29,120	
Net income before taxes & interest	\$ 761,954	\$ 474,445	\$ 120,264	\$ 72,366	\$ 94,878	
Add: O&M	986,834	748,450	130,904	39,631	67,849	
Add: Depreciation	656,693	426,283	102,352	53,091	74,967	
Add: Taxes other than income	181,818	113,270	28,606	15,534	24,408	
Add: Interest on customer deposits	 6,712	 5,729	 922	 61	 -	
Net Revenue Requirement	2,594,011	1,768,178	383,049	180,682	262,102	
Add: Changes/ True-up Estimate						
Total Revenue Requirement	\$ 2,594,011	\$ 1,768,178	\$ 383,049	\$ 180,682	\$ 262,102	
Demand-Related						
Rate Base	\$ 1,348,914	\$ 670,816	\$ 219,566	\$ 124,633	\$ 333,900	
Net Income after taxes	103,057	51,250	16,775	9,522	25,510	
Add: Income Taxes	 45,638	 22,696	 7,429	 4,217	 11,297	
Net income before taxes & interest	\$ 148,695	\$ 73,946	\$ 24,203	\$ 13,739	\$ 36,807	
Add: O&M	125,452	62,277	20,429	11,601	31,145	
Add: Depreciation	157,404	78,138	25,632	14,556	39,077	
Add: Taxes other than income	52,381	26,003	8,530	4,844	13,004	
Required Demand Revenues	\$ 483,931	\$ 240,364	\$ 78,793	\$ 44,740	\$ 120,033	

Liberty Utilities (WEMO)			Small	Medium	Large	-
Summary of Rate of Return	Total	Residential	General Srv	General Srv	General Srv	Interruptible
	Company	RS	SGS	MGS	LGS	IN
Fully Allocated Customer Costs						
Rate Base	\$ 5,248,134	\$ 3,461,253	\$ 818,804	\$ 501,153	\$ 466,923	
Net Income after taxes	400,957	264,440	62,557	38,288	35,673	
Add: Income Taxes	 177,560	 117,105	27,703	 16,956	15,797	
Net income before taxes & interest	\$ 578,518	\$ 381,544	\$ 90,259	\$ 55,244	\$ 51,470	
Add: O&M	860,286	685,645	110,307	27,915	36,419	
Add: Depreciation	499,286	348,143	76,720	38,534	35,889	
Add: Taxes other than income	129,432	87,264	20,075	10,689	11,403	
Add: Interest on deposits	 6,712	5,729	922	61	-	
Required Customer Revenues	\$ 2,074,233	\$ 1,508,326	\$ 298,284	\$ 132,442	\$ 135,181	
Number of Customers	 3,843	 3,277	 528	 35	4	
Monthly cost per customer	\$ 44.97	\$ 38.35	\$ 47.11	\$ 318.37	\$ 3,072.30	
Required Total Revenues	2,558,164	1,748,690	377,077	177,182	255,215	

iberty Utilities (WEMO)			Small	Medium	Large	
Summary of Rate of Return	Total	Residential	General Srv	General Srv	General Srv	Interruptib
	Company	RS	SGS	MGS	LGS	
Basic Customer Costs						
Plant						
376.0 Mains - Cathodic Protection	90,209	44,782	14,690	8,342	22,395	
376.1 Mains - Steel	784,394	389,390	127,731	72,538	194,736	
376.2 Mains - Plastic	1,091,875	542,029	177,801	100,973	271,072	
380.0 Services	2,807,686	2,298,554	391,055	103,491	14,586	
381.0 Meters	709,571	479,584	117,571	95,845	16,570	
382.0 Meter Installations	967,125	653,660	160,247	130,634	22,585	
383.0 House Regulators	123,891	65,592	36,510	19,834	1,955	
384.0 House Regulators Installations	60,450	32,004	17,815	9,678	954	
385.0 Ind. Meas. & Reg. Sta. Equip	87,200	-	-	-	87,200	
Total	6,722,402	4,505,595	1,043,419	541,335	632,053	
Accumulated Depreciation						
376.0 Mains - Cathodic Protection	(50,999)	(25,317)	(8,305)	(4,716)	(12,661)	
376.1 Mains - Steel	(200,598)	(99,581)	(32,665)	(18,551)	(49,801)	
376.2 Mains - Plastic	(373,335)	(185,331)	(60,794)	(34,525)	(92,685)	
380.0 Services	(1,251,940)	(1,024,919)	(174,371)	(46,146)	(6,504)	
381.0 Meters	163,438	110,465	27,081	22,076	3,817	
382.0 Meter Installations	(161,511)	(109,162)	(26,761)	(21,816)	(3,772)	
383.0 House Regulators	(122,541)	(64,877)	(36,113)	(19,618)	(1,934)	
384.0 House Regulators Installations	(45,996)	(24,352)	(13,555)	(7,364)	(726)	
385.0 Ind. Meas. & Reg. Sta. Equip	(28,027)	-	-	-	(28,027)	
Fotal	(2,071,509)	(1,423,075)	(325,483)	(130,659)	(192,292)	
Net income before taxes & interest						
Net Plant	4,650,894	3,082,521	717,937	410,676	439,761	
Net Income after taxes	355,328 \$	235,505 \$	54,850 \$	31,376 \$	33,598	
Add: Income Taxes	157,354	104,291	24,290	13,894	14,878	
Net income before taxes & interest	\$ 512,682 \$	339,795 \$	79,140 \$	45,270 \$	48,476	

iberty Utilities (WEMO)			Small	Medium	Large	
Summary of Rate of Return	Total	Residential	General Srv	General Srv	General Srv	Interruptibl
	Company	RS	SGS	MGS	LGS	
Basic Customer Costs (Continued)						
O&M Expenses						
874 Mains & Service Expenses	134,378	92,174	20,020	8,032	14,152	
876 Meas. & Reg. Sta. Expenses - Industrial	-	-	-	-	-	
878 Meter & House Reg. Expenses	12,269	8,367	2,144	1,515	243	
879 Customer Installations Expenses	-	-	-	-	-	
880 Other Expenses	-	-	-	-	-	
902 Meter Reading Expenses	30,393	25,865	4,212	292	24	
903 Customer Records & Collection Expenses	127,928	109,362	17,308	1,138	121	
909 Informational and Instructional Advertising Expenses	2,513	2,143	345	23	2	
913 Advertising	695	592	95	6	1	
916 Miscellaneous Sales Expense		-				
Fotal	308,175	238,503	44,124	11,005	14,543	
Depreciation Expense						
376.0 Mains - Cathodic Protection	90,209	688	226	128	344	
376.1 Mains - Steel	784,394	6,350	2,083	1,183	3,176	
376.2 Mains - Plastic	1,091,875	8,097	2,656	1,508	4,049	
880.0 Services	2,807,686	113,866	19,372	5,127	723	
381.0 Meters	709,571	9,369	2,297	1,872	324	
882.0 Meter Installations	967,125	16,710	4,097	3,340	577	
383.0 House Regulators	123,891	2,500	1,392	756	75	
384.0 House Regulators Installations	60,450	1,066	593	322	32	
385.0 Ind. Meas. & Reg. Sta. Equip	87,200	-	-	-	2,508	
Total	6,722,402	158,646	32,715	14,236	11,807	
lasic customer-related costs	1,038,262	\$ 736,945	\$ 155,980	\$ 70,511	\$ 74,826	
Number of customers	3,843	3,277	528	35	4	
Monthly basic cost per customer	\$ 22.51	\$ 18.74	\$ 24.64	\$ 169.50	\$ 1,700.60	

<u>Liberty Utilities (WEMO)</u> Allocation of Gross Plant	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Intangible Plant								
301.0 Organization		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
302.0 Franchises & Consents		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
303.0 Misc. Intangible Plant		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Total Intangible Plant		-						
- Demand	_	-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Total		-	-	-	-	-	-	
Production Plant								
							_	
311 Liquified Petroleum Gas Equipment		-						DEM
- Demand	P(S)	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity Total			-	-	-	<u> </u>	-	0%
Total		-	-	-	-	-	-	
Total Production Plant	<u> </u>							
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-	-	
Total		-	-	-	-	-	-	

<u>Liberty Utilities (WEMO)</u>				Small	Medium	Large	-	
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Transmission Plant								
365.0 Land and Land Rights - TP							Г	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
365.1 Rights-Of-Way	<u></u>	18,864					Г	DEM
- Demand	P&A	18,864	9,365	3,072	1,745	4,683	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		18,864	9,365	3,072	1,745	4,683	-	
365.2 Rights-Of-Way		-					Г	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
366.0 Structures & Improvements		906					Г	DEM
- Demand	P&A	906	450	148	84	225	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		=	=	-	=	-	-	0%
Total		906	450	148	84	225	-	
366.1 Underground Conduit		11,935					Г	DEM
- Demand	P&A	11,935	5,925	1,944	1,104	2,963	- 1	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		11,935	5,925	1,944	1,104	2,963	-	
367.0 Mains - Cathodic Protection		10,543					Г	DEM
- Demand	P&A	10,543	5,234	1,717	975	2,617	- 1	100%
- Customer		-	-	-,	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		10,543	5,234	1,717	975	2,617	-	

Liberty Utilities (WEMO)				Small	Medium	Large	-	
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
367.1 Mains - Steel		1,094,201					Г	DEM
- Demand	P&A	1,094,201	543,184	178,180	101,188	271,649	_	100%
- Customer		-,	-		,		_	0%
- Commodity		-	-	-	-	-	-	0%
Total		1,094,201	543,184	178,180	101,188	271,649	-	
367.2 Mains - Plastic		-					ſ	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		<u>-</u>	-		-	-	-	0%
Total		-	-	-	-	-	-	
369.0 Meas. & Reg. Sta. Equipment		30,963						DEM
- Demand	P&A	30,963	15,370	5,042	2,863	7,687	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		30,963	15,370	5,042	2,863	7,687	-	
370.0 Communication Equipment		<u>-</u> _					Г	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Total Transmission Plant		1,167,412						
- Demand	•	1,167,412	579,528	190,101	107,959	289,825	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	<u>-</u>	
Total	_	1,167,412	579,528	190,101	107,959	289,825	-	

Cost of Service Study 12 Months Ending June 30, 2017

Allocation of Gross Plant	Allocation Factor	Total	Residential	General Srv	General Srv	General Srv	I na han man ya Aille I n	Classicias i
	Factor	Compone					Interruptible	Classification
		Company	RS	SGS	MGS	LGS	IN	Factor
Distribution Plant								
374.0 Land & Land Rights		7,548						DP
			705	264	1.10	207	-	
- Demand	DP_D	1,601	795	261	148	397	-	21%
- Customer	DP_C	5,947	3,986	923	479	559	-	79%
- Commodity		-	-	-	-	-	-	0%
Total		7,548	4,781	1,184	627	957	-	
874.1 T&D Land		150						DP
- Demand	DP_D	32	16	5	3	8	-	21%
- Customer	DP_C	118	79	18	10	11	-	79%
- Commodity	_	-	-	-	-	-	-	0%
, Total	<u> </u>	150	95	23	12	19	-	
374.2 Land Rights		5,657						DP
- Demand	- DD D		FOC	105	111	200	-	
- Demand - Customer	DP_D	1,200	596 2,987	195 692	111 359	298 419		21% 79%
	DP_C	4,457 -	2,987	-	359	419		
- Commodity Total		5,657	3,583	 887	470	717	-	0%
		2,221	2,222	-				
375.0 Structures & Improvements -DP	_							DP
- Demand	DP_D	-	-	-	-	-	-	21%
- Customer	DP_C	-	-	-	-	-	-	79%
- Commodity		-	-	-	-	-	-	0%
Fotal	,	-	-	-	-	-	-	
376.0 Mains - Cathodic Protection		165,910						DISMAIN
- Demand	P&A	75,701	37,580	12,327	7,001	18,794	_	46%
- Customer	P&A	90,209	44,782	14,690	8,342	22,395	_	54%
- Commodity	. •	-	-	- ,,,,,,,	-	,	_	0%
Total		165,910	82,361	27,017	15,343	41,189	-	
NTC 1 Maine Charl		1 442 646						DICMANN
376.1 Mains - Steel - Demand	P&A	1,442,640 658,245	326,767	107,189	60,872	163,418	F	DISMAIN 46%
		•		•	= -		-	
- Customer	P&A	784,394	389,390	127,731	72,538	194,736	-	54%
- Commodity Total		1,442,640	716,156	234,919	133,411	358,154	-	0%

12 Months Ending June 30, 2017

<u>Liberty Utilities (WEMO)</u> Allocation of Gross Plant	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
376.2 Mains - Plastic	_	2,008,151						DISMAIN
- Demand	P&A	916,276	454,858	149,206	84,734	227,477	-	46%
- Customer	P&A	1,091,875	542,029	177,801	100,973	271,072	-	54%
- Commodity		-	-	-	-	-	-	0%
Total		2,008,151	996,888	327,007	185,708	498,549	-	
377.0 Compressor Station Equipment - DP		-					Г	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total	·	-	-	-	-	-	-	
378.0 Meas. & Reg. Sta. Eq-General		111,189					Г	DEM
- Demand	P&A	111,189	55,197	18,106	10,282	27,604	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		111,189	55,197	18,106	10,282	27,604	-	
379.0 Meas. & Reg City Gate		48,059					Г	DEM
- Demand	P&A	48,059	23,858	7,826	4,444	11,931	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	<u>-</u>	0%
Total	·	48,059	23,858	7,826	4,444	11,931	-	
380.0 Services		2,807,686					Г	CUS
- Demand		-	-	-	-	-	-	0%
- Customer	SV	2,807,686	2,298,554	391,055	103,491	14,586	-	100%
- Commodity		-	-	-	-	-	-	0%
Total		2,807,686	2,298,554	391,055	103,491	14,586	- "	

<u>.iberty Utilities (WEMO)</u> Allocation of Gross Plant	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
381.0 Meters		709,571						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MI	709,571	479,584	117,571	95,845	16,570	-	100%
- Commodity		-	-	-	-	-	-	0%
Гotal		709,571	479,584	117,571	95,845	16,570	-	
882.0 Meter Installations		967,125					ſ	CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MI	967,125	653,660	160,247	130,634	22,585	-	100%
- Commodity		-	-	-	-	-	-	0%
otal		967,125	653,660	160,247	130,634	22,585	-	
83.0 House Regulators		123,891					Г	CUS
- Demand		-	-	-	-	-	-	0%
- Customer	R	123,891	65,592	36,510	19,834	1,955	-	100%
- Commodity		-	-	-	-	-	-	0%
otal		123,891	65,592	36,510	19,834	1,955	=	
84.0 House Regulators Installations		60,450						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	R	60,450	32,004	17,815	9,678	954	-	100%
- Commodity		-	-	-	-	-	-	0%
otal		60,450	32,004	17,815	9,678	954	-	
85.0 Ind. Meas. & Reg. Sta. Equip		87,200						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MIL	87,200	-	-	-	87,200	-	100%
- Commodity		-	-	-	-	-	-	0%
otal		87,200	-	-	-	87,200	-	
87.0 Other Equipment - DP		<u>-</u>						DP
- Demand	DP_D	-	-	-	-	-	-	21%
- Customer	DP_C	-	-	-	-	-	-	79%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
otal Distribution Plant	<u></u>	8,545,228						
- Demand	_	1,812,303	899,665	295,115	167,596	449,927	-	
- Customer		6,732,925	4,512,648	1,045,053	542,182	633,042	-	
- Commodity			-	-	-	-		
Total Total	_	8,545,228	5,412,312	1,340,168	709,778	1,082,969	-	

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Alloc Plant

iberty Utilities (WEMO)				Small	Medium	Large	÷.	
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
General Plant								
389.0 Land & Land Rights		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
390.0 Structures & Improvements		350,063					Г	T&D
- Demand	T&D_D	107,395	53,313	17,488	9,932	26,662	-	31%
- Customer	T&D_C	242,668	162,645	37,666	19,541	22,816	-	69%
- Commodity	_	-	-	-	-	-	-	0%
Fotal	<u> </u>	350,063	215,958	55,154	29,473	49,478	-	
90.1 Structures & Improvements - Structur	re Frame - GP	_					Г	T&D
- Demand	T&D_D	-	_	_	_	_	_	31%
- Customer	T&D_C	-	_	_	_	_	_	69%
- Commodity	. 45_5	_	-	-	_	-	_	0%
Total		-	-	-	-	-	-	
390.2 General - Improvements		_						T&D
- Demand	T&D_D							31%
- Customer	T&D_D	-	-	-	-	-	-	69%
- Commodity	TAD_C	-	-	-	-	-	-	09%
Fotal		-	-	-	-	-	-	070
2000 2 Improvements								T&D
390.3 Improvements	T0.0.0	<u> </u>						
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69% 0%
- Commodity otal		<u> </u>	<u> </u>	-	<u> </u>	<u> </u>	-	U%
							_	
391.0 Office Furniture & Equipment	<u> </u>	113,679					L	T&D
- Demand	T&D_D	34,875	17,313	5,679	3,225	8,658	-	31%
- Customer	T&D_C	78,804	52,817	12,232	6,346	7,409	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		113,679	70,130	17,911	9,571	16,067	-	

Cost of Service Study 12 Months Ending June 30, 2017

<u>Liberty Utilities (WEMO)</u>				Small	Medium	Large	-	
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
392.0 Transportation Equipment		42,261					Ī	T&D
- Demand	T&D_D	12,965	6,436	2,111	1,199	3,219	-	31%
- Customer	T&D_C	29,296	19,635	4,547	2,359	2,754	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		42,261	26,071	6,658	3,558	5,973	-	
392.1 Transportation Equipment<12		233,739					Ī	T&D
- Demand	T&D_D	71,708	35,597	11,677	6,631	17,802	-	31%
- Customer	T&D_C	162,031	108,599	25,150	13,048	15,234	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		233,739	144,197	36,827	19,679	33,037	-	
393.0 Stores Equipment - GP		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	_	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
394.0 Tools, Shop, & Garage Equip.		156,580					Ī	T&D
- Demand	T&D_D	48,037	23,846	7,822	4,442	11,926	-	31%
- Customer	T&D_C	108,543	72,750	16,848	8,741	10,205	-	69%
- Commodity		-	-	-	-	-	-	0%
Total	-	156,580	96,596	24,670	13,183	22,131	-	
395.0 Laboratory Equipment - GP		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total	-	-	-	-	-	-	-	
396.0 Power Operated Equipment - GP		<u> </u>					ſ	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	

<u>Liberty Utilities (WEMO)</u> Allocation of Gross Plant	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
396.1 Ditchers		-					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
396.2 Backhoes		-					Г	T&D
- Demand	T&D_D	_	-	-	-	-	_	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	_	-	-	-	-	-	-	0%
Гotal		-	-	-	-	-	-	
396.3 Ditches - Group		-					Г	T&D
- Demand	T&D_D	-	-	-	-	-	- 1	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	_	-	-	-	-	-	-	0%
Fotal		-	-	-	-	-	-	
397.0 Communication Equipment		1,803					Г	T&D
- Demand	T&D_D	553	275	90	51	137	- 1	31%
- Customer	T&D_C	1,250	838	194	101	118	-	69%
- Commodity	_	-	-	-	-	-	-	0%
Total		1,803	1,112	284	152	255	-	
397.2 GEN-Comm Eq. Fixed Radios		-					Г	T&D
- Demand	T&D_D	-	_	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
397.3 GEN-Comm Eq. Telemetering		-						T&D
- Demand	T&D_D	-	-	-	-	-	- 1	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-		=		-	0%
Total		-	-	-	-	-	=	
397.5 Communication Equipment		<u> </u>					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity			<u>-</u> _			-	-	0%
Total		-	-	-	-	-	-	

iberty Utilities (WEMO)				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classificatio
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
98.0 Miscellaneous Equipment	<u></u>	77,145						T&D
- Demand	T&D_D	23,667	11,749	3,854	2,189	5,876	-	31%
- Customer	T&D_C	53,478	35,843	8,301	4,306	5,028	-	69%
- Commodity		-	-	-	-	-	-	0%
otal		77,145	47,592	12,155	6,495	10,904	-	
99.0 OTH-Other Tangible Property		12,578					Г	T&D
- Demand	T&D_D	3,859	1,916	628	357	958	-	31%
- Customer	T&D_C	8,719	5,844	1,353	702	820	-	69%
- Commodity	_	-	-	-	-	-	-	0%
otal		12,578	7,759	1,982	1,059	1,778	-	
99.1 OTH-Oth Tang Prop - Servers - H/W		1,528					П	T&D
- Demand	T&D D	469	233	76	43	116	_	31%
- Customer	T&D_C	1,060	710	164	85	100	_	69%
- Commodity	Tab_c	-	-	-	-	-	_	0%
otal		1,528	943	241	129	216	-	070
00 2 OTH Oth Tana Bran Nationals 11/W		17.575						T0 D
99.3 OTH-Oth Tang Prop - Network - H/W	T00 0	17,575	2.677	070	400	4 222		T&D
- Demand	T&D_D	5,392	2,677	878	499	1,339	-	31%
- Customer	T&D_C	12,183	8,166	1,891	981	1,145	-	69%
- Commodity Total		- 17,575	10,842	2,769	1,480	2,484	- 1	0%
otai		17,575	10,842	2,769	1,480	2,484	-	
99.4 Oth Tang Prop - PC Hardward	_	154,132						T&D
- Demand	T&D_D	47,286	23,474	7,700	4,373	11,739	-	31%
- Customer	T&D_C	106,846	71,612	16,584	8,604	10,046	-	69%
- Commodity		-	-	-	-	-	-	0%
otal		154,132	95,086	24,284	12,977	21,785	-	
99.5 Oth Tang Prop - PC Software		879,980					Г	T&D
- Demand	T&D_D	269,967	134,017	43,961	24,966	67,023	-	31%
- Customer	T&D_C	610,013	408,853	94,683	49,122	57,355	-	69%
- Commodity	_	-	-	-	-	-	-	0%
otal		879,980	542,870	138,645	74,088	124,377	-	
otal General Plant		2,041,063						
- Demand	=	626,172	310,845	101,966	57,906	155,455	_	
- Customer		1,414,891	948,311	219,613	113,937	133,031	_	
- Commodity			-	219,013	-	133,031	_	
otal	_	2,041,063	1,259,155	321,578	171,843	288,486		

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TAB NAME: Alloc Plant

Liberty Utilities (WEMO)				Small	Medium	Large		
Allocation of Gross Plant	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
AD Not Reflected in Subledger		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Proforma Adjustments								
AMR Addition		639,000						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	639,000	431,887	105,878	86,312	14,922	-	100%
- Commodity	-	-	-	-	-	-	-	0%
Fotal		639,000	431,887	105,878	86,312	14,922	-	
ehicle Additions		290,000						T&D
- Demand	T&D_D	88,968	44,166	14,488	8,228	22,088	-	31%
- Customer	T&D_C	201,032	134,739	31,203	16,188	18,901	-	69%
- Commodity		-	-	-	-	-	-	0%
otal		290,000	178,904	45,691	24,416	40,989	-	
PVC & Steel Mains Replacement		<u> </u>						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
tate Case Expense								T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
iirksville Shop		<u> </u>						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-		-	-	-	-	0%
Total		-	-	-	-	-	-	

Liberty Utilities (WEMO)	Allegation	Total	Docidential	Small	Medium	Large	-	Classification
Allocation of Gross Plant	Allocation Factor	Total	Residential RS	General Srv SGS	General Srv MGS	General Srv LGS	Interruptible IN	Classification Factor
	Factor	Company	NS NS	303	IVIGS	LUS	IN	Factor
Merit Increases		15,115					Г	T&D
- Demand	T&D_D	4,637	2,302	755	429	1,151	-	31%
- Customer	T&D_C	10,478	7,023	1,626	844	985	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		15,115	9,325	2,381	1,273	2,136	-	
Vacant Positions		10,708						T&D
- Demand	T&D_D	3,285	1,631	535	304	816	- 1	31%
- Customer	T&D_C	7,423	4,975	1,152	598	698	-	69%
- Commodity	_	-	-	-	-	-	-	0%
Total	<u> </u>	10,708	6,606	1,687	902	1,513	-	
CAM Adjustments		(16,625)					Г	T&D
- Demand	T&D_D	(5,100)	(2,532)	(831)	(472)	(1,266)	_	31%
- Customer	T&D_C	(11,525)	(7,724)	(1,789)	(928)	(1,084)	_	69%
- Commodity	. 45_5	-	-	-	-	-	-	0%
Total		(16,625)	(10,256)	(2,619)	(1,400)	(2,350)	-	
Denomination Charles							г	T0.D
Depreciation Study	700.0	<u> </u>						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
EE Reg Asset Adjustment		-						OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	13%
- Customer	OM(F)_C	-	-	-	-	-	-	87%
- Commodity	OM(F)_E	-	-	-	-	-	-	0%
Total	-	-	-	-	-	-	-	
Total Proforma Adjustments		938,198						
- Demand		91,790	45,566	14,947	8,488	22,788	-	
- Customer		846,408	570,899	138,071	103,014	34,423	-	
- Commodity		-	-	-	-	-	-	
Total	_	938,198	616,466	153,018	111,503	57,211	-	
Total Utility Plant		12,691,901						
- Demand		3,697,678	1,835,604	602,129	341,950	917,995	-	
- Customer		8,994,223	6,031,858	1,402,736	759,133	800,496	-	
- Commodity		-	-	-	-	-	-	
Total		12,691,901	7,867,461	2,004,866	1,101,083	1,718,491	_	

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Alloc Plant

<u>Liberty Utilities (WEMO)</u> Allocation of Accumulated Depreciation	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
Intangible Plant								
301.0 Organization		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
02.0 Franchises & Consents		(4,071)						T&D
- Demand	T&D_D	(1,249)	(620)	(203)	(115)	(310)	-	31%
- Customer	T&D_C	(2,822)	(1,891)	(438)	(227)	(265)	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		(4,071)	(2,511)	(641)	(343)	(575)	-	
03.0 Misc. Intangible Plant		(1,459)						T&D
- Demand	T&D_D	(448)	(222)	(73)	(41)	(111)	-	31%
- Customer	T&D_C	(1,011)	(678)	(157)	(81)	(95)	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		(1,459)	(900)	(230)	(123)	(206)	-	
otal Intangible Plant	_	(5,530)						
- Demand		(1,697)	(842)	(276)	(157)	(421)	-	
- Customer		(3,833)	(2,569)	(595)	(309)	(360)	-	
- Commodity		-	-	-	-	-	-	
otal		(5,530)	(3,412)	(871)	(466)	(782)	-	
Production Plant								
11 Liquified Petroleum Gas Equipment		-						DEM
- Demand	P(S)	=	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
otal Production Plant	_							
- Demand	_	-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		<u> </u>		<u> </u>	<u> </u>		-	
Total	·	-	-	-	-	-	-	

Liberty Utilities (WEMO)				Small	Medium	Large	-	
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Transmission Plant								
365.0 Land and Land Rights - TP	-	-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
365.1 Rights-Of-Way	_							DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
365.2 Rights-Of-Way		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Гotal		-	-	-	-	-	-	
366.0 Structures & Improvements		(874)						DEM
- Demand	P&A	(874)	(434)	(142)	(81)	(217)	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(874)	(434)	(142)	(81)	(217)	-	
366.1 Underground Conduit		(1,355)						DEM
- Demand	P&A	(1,355)	(673)	(221)	(125)	(336)	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Fotal		(1,355)	(673)	(221)	(125)	(336)	-	
367.0 Mains - Cathodic Protection		(9,081)						DEM
- Demand	P&A	(9,081)	(4,508)	(1,479)	(840)	(2,254)	_	100%
- Customer	-	-	(4,500)	-	-	-	-	0%
- Commodity	_	-	-	-	-	-	-	0%
Total		(9,081)	(4,508)	(1,479)	(840)	(2,254)	- L	

Liberty Utilities (WEMO)				Small	Medium	Large		
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
367.1 Mains - Steel		(935,843)						DEM
- Demand	P&A	(935,843)	(464,572)	(152,393)	(86,544)	(232,335)	-	100%
- Customer	_	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(935,843)	(464,572)	(152,393)	(86,544)	(232,335)	-	
367.2 Mains - Plastic		(64,489)					ſ	DEM
- Demand	P&A	(64,489)	(32,014)	(10,501)	(5,964)	(16,010)	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		(64,489)	(32,014)	(10,501)	(5,964)	(16,010)	-	
369.0 Meas. & Reg. Sta. Equipment		(31,099)						DEM
- Demand	P&A	(31,099)	(15,438)	(5,064)	(2,876)	(7,721)	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	=	-	-	=	=	0%
Гotal		(31,099)	(15,438)	(5,064)	(2,876)	(7,721)	-	
370.0 Communication Equipment		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	<u> </u>	-	0%				
Гotal		-	-	-	-	-	=	
Total Transmission Plant	_	(1,042,742)						
- Demand	_	(1,042,742)	(517,639)	(169,800)	(96,430)	(258,874)	-	
- Customer		-	-	-	-	-	-	
- Commodity			-	-	-	-	-	
Total		(1,042,742)	(517,639)	(169,800)	(96,430)	(258,874)	-	

<u>Liberty Utilities (WEMO)</u>				Small	Medium	Large	-	
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
	_							
Distribution Plant							_	
374.0 Land & Land Rights	 =							DP
- Demand	DP_D	-	-	-	-	-	-	21%
- Customer	DP_C	-	-	-	-	-	-	79%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
374.1 T&D Land		-						DP
- Demand	DP_D	-	-	-	-	-	-	21%
- Customer	DP_C	-	-	-	_	-	-	79%
- Commodity		-	-	-	_	-	-	0%
Total		-	-	-	-	-	-	
374.2 Land Rights		-					Г	DP
- Demand	DP_D	_	_	_	_	-	_	21%
- Customer	DP_C	_	_	-	_	_	_	79%
- Commodity		_	_	_	_	_	_	0%
Total		-	-	-	-	-	-	
375.0 Structures & Improvements -DP		(617)					Г	DP
- Demand	DP_D	(131)	(65)	(21)	(12)	(33)	_	21%
- Customer	DP_C	(487)	(326)	(76)	(39)	(46)	_	79%
- Commodity		-	-	-	-	-	_	0%
Total		(617)	(391)	(97)	(51)	(78)	-	
376.0 Mains - Cathodic Protection		(93,796)					Г	DISMAIN
- Demand	P&A	(42,797)	(21,245)	(6,969)	(3,958)	(10,625)	_	46%
- Customer	P&A	(50,999)	(25,317)	(8,305)	(4,716)	(12,661)	_	54%
- Commodity	-	-	-	-	-	-	-	0%
Total		(93,796)	(46,562)	(15,274)	(8,674)	(23,286)	-	
376.1 Mains - Steel		(368,935)					ſ	DISMAIN
- Demand	P&A	(168,337)	(83,566)	(27,412)	(15,567)	(41,792)	-	46%
- Customer	P&A	(200,598)	(99,581)	(32,665)	(18,551)	(49,801)	_	54%
- Commodity	-	-	-	-	-	-	-	0%
Total		(368,935)	(183,147)	(60,077)	(34,118)	(91,593)		

Liberty Utilities (WEMO)				Small	Medium	Large		
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
376.2 Mains - Plastic		(686,628)						DISMAIN
- Demand	P&A	(313,294)	(155,525)	(51,017)	(28,972)	(77,779)	-	46%
- Customer	P&A	(373,335)	(185,331)	(60,794)	(34,525)	(92,685)	-	54%
- Commodity	-	-	-	-	-	-	-	0%
Fotal	,	(686,628)	(340,856)	(111,810)	(63,497)	(170,464)	-	
377.0 Compressor Station Equipment - DP		(814)						DEM
- Demand	P&A	(814)	(404)	(133)	(75)	(202)	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Fotal		(814)	(404)	(133)	(75)	(202)	-	
378.0 Meas. & Reg. Sta. Eq-General		(43,161)						DEM
- Demand	P&A	(43,161)	(21,426)	(7,028)	(3,991)	(10,715)	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	=	=	=	-	-	-	0%
Total		(43,161)	(21,426)	(7,028)	(3,991)	(10,715)	-	
379.0 Meas. & Reg City Gate		(64,031)						DEM
- Demand	P&A	(64,031)	(31,787)	(10,427)	(5,921)	(15,897)	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	=	=	=	-	-	-	0%
otal		(64,031)	(31,787)	(10,427)	(5,921)	(15,897)	-	
80.0 Services	_	(1,251,940)						CUS
- Demand	-		-	-	-	-	-	0%
- Customer	SV	(1,251,940)	(1,024,919)	(174,371)	(46,146)	(6,504)	-	100%
- Commodity	-	-	-	-	-	-	-	0%
Гotal		(1,251,940)	(1,024,919)	(174,371)	(46,146)	(6,504)	-	· · · · · · · · · · · · · · · · · · ·

<u>iberty Utilities (WEMO)</u> Allocation of Accumulated Depreciation	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
381.0 Meters	_	163,438					Г	CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	163,438	110,465	27,081	22,076	3,817	-	100%
- Commodity	-	-	-	-	-	-	-	0%
Total		163,438	110,465	27,081	22,076	3,817	-	
82.0 Meter Installations		(161,511)					ſ	CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	(161,511)	(109,162)	(26,761)	(21,816)	(3,772)	-	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		(161,511)	(109,162)	(26,761)	(21,816)	(3,772)	-	
83.0 House Regulators		(122,541)						CUS
- Demand	-	=	-	-	-	-	-	0%
- Customer	R	(122,541)	(64,877)	(36,113)	(19,618)	(1,934)	-	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		(122,541)	(64,877)	(36,113)	(19,618)	(1,934)	-	
84.0 House Regulators Installations		(45,996)						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	R	(45,996)	(24,352)	(13,555)	(7,364)	(726)	-	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		(45,996)	(24,352)	(13,555)	(7,364)	(726)	-	
85.0 Ind. Meas. & Reg. Sta. Equip		(28,027)					Г	CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MIL	(28,027)	-	-	-	(28,027)	-	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		(28,027)	-	-	-	(28,027)	-	
87.0 Other Equipment - DP		-					Г	DP
- Demand	DP_D	=	-	-	-	-	-	21%
- Customer	DP_C	-	-	-	-	-	-	79%
- Commodity	-	-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
otal Distribution Plant		(2,704,560)						
- Demand	-	(632,565)	(314,018)	(103,007)	(58,498)	(157,042)	-	
- Customer		(2,071,995)	(1,423,401)	(325,558)	(130,698)	(192,338)	-	
- Commodity		-	-	-	-	-	-	
otal	_	(2,704,560)	(1,737,419)	(428,565)	(189,196)	(349,380)	-	

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

Liberty Utilities (WEMO)				Small	Medium	Large		
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
General Plant							_	
389.0 Land & Land Rights	- <u></u> _	-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
90.0 Structures & Improvements		(79,059)						T&D
- Demand	T&D_D	(24,254)	(12,040)	(3,950)	(2,243)	(6,021)	-	31%
- Customer	T&D_C	(54,805)	(36,732)	(8,507)	(4,413)	(5,153)	-	69%
- Commodity		=	-	-	-	-	-	0%
, Fotal		(79,059)	(48,772)	(12,456)	(6,656)	(11,174)	- '	
90.1 Structures & Improvements - Structure F	rame - GP	-						T&D
- Demand	T&D_D	-	_	_	_	-	_	31%
- Customer	T&D_C	-	_	_	_	-	_	69%
- Commodity	-	_	_	_	-	_	_	0%
otal		-	-	-	-	-	-	
390.2 General - Improvements		-						T&D
- Demand	T&D_D	_	-	-	-	_	_	31%
- Customer	T&D_C	_	-	-	-	_	_	69%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
90.3 Improvements		-						T&D
- Demand	T&D_D	-	-	-	-	-	_	31%
- Customer	T&D_C	_	_	-	_	_	_	69%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	- '	
91.0 Office Furniture & Equipment		(23,911)						T&D
- Demand	T&D_D	(7,336)	(3,642)	(1,195)	(678)	(1,821)	_	31%
- Customer	T&D_C	(16,575)	(11,109)	(2,573)	(1,335)	(1,558)		69%
- Customer - Commodity	T&D_C	(16,575)	(11,109)	(2,575)	(1,555)	(1,556)		0%
- Commodity Total	=	(23,911)	(14,751)	(3,767)	(2,013)	(3,380)	-	U70

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>Liberty Utilities (WEMO)</u>				Small	Medium	Large		
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
992.0 Transportation Equipment	_	(18,870)						T&D
- Demand	T&D_D	(5,789)	(2,874)	(943)	(535)	(1,437)	-	31%
- Customer	T&D_C	(13,081)	(8,767)	(2,030)	(1,053)	(1,230)	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		(18,870)	(11,641)	(2,973)	(1,589)	(2,667)	-	
92.1 Transportation Equipment<12	_	(69,399)						T&D
- Demand	T&D_D	(21,291)	(10,569)	(3,467)	(1,969)	(5,286)	-	31%
- Customer	T&D_C	(48,108)	(32,244)	(7,467)	(3,874)	(4,523)	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		(69,399)	(42,813)	(10,934)	(5,843)	(9,809)	-	
93.0 Stores Equipment - GP	_	(7)						T&D
- Demand	T&D_D	(2)	(1)	(0)	(0)	(1)	-	31%
- Customer	T&D_C	(5)	(3)	(1)	(0)	(0)	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		(7)	(4)	(1)	(1)	(1)	-	
94.0 Tools, Shop, & Garage Equip.		(30,972)						T&D
- Demand	T&D_D	(9,502)	(4,717)	(1,547)	(879)	(2,359)	-	31%
- Customer	T&D_C	(21,470)	(14,390)	(3,333)	(1,729)	(2,019)	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		(30,972)	(19,107)	(4,880)	(2,608)	(4,378)	-	
95.0 Laboratory Equipment - GP	_	(1)						T&D
- Demand	T&D_D	(0)	(0)	(0)	(0)	(0)	-	31%
- Customer	T&D_C	(1)	(0)	(0)	(0)	(0)	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		(1)	(1)	(0)	(0)	(0)	-	
96.0 Power Operated Equipment - GP	_	(85)						T&D
- Demand	T&D_D	(26)	(13)	(4)	(2)	(6)	-	31%
- Customer	T&D_C	(59)	(39)	(9)	(5)	(6)	-	69%
- Commodity		-	-	-		-	-	0%
Total		(85)	(52)	(13)	(7)	(12)	-	

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

iberty Utilities (WEMO)				Small	Medium	Large		
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
96.1 Ditchers		-						T&D
- Demand	T&D_D	=	-	-	-	-	- 1	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal	-	-	-	-	-	-	-	
396.2 Backhoes		-					ſ	T&D
- Demand	T&D_D	_	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Fotal		-	-	-	-	-	-	
396.3 Ditches - Group		-					Г	T&D
- Demand	T&D_D		_	-	-	-	-	31%
- Customer	T&D_C	_	_	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
897.0 Communication Equipment		(246)					Г	T&D
- Demand	T&D_D	(75)	(37)	(12)	(7)	(19)	_	31%
- Customer	T&D_C	(171)	(114)	(26)	(14)	(16)	_	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		(246)	(152)	(39)	(21)	(35)	-	
897.2 GEN-Comm Eq. Fixed Radios		_						T&D
- Demand	T&D_D		_	_	_	_	_	31%
- Customer	T&D_C	_	_	_	_	_	_	69%
- Commodity		_	_	-	-	-	_	0%
otal		-	-	-	-	-	-	•/-
397.3 GEN-Comm Eq. Telemetering		_						T&D
- Demand	T&D_D		_	-	-	_	.	31%
- Customer	T&D_C	_	-	-	-	_	-	69%
- Commodity	- IWD_C	_	-	-	-	_	_	0%
otal		-	-	-	-	-	-	0/0
897.5 Communication Equipment		_					Г	T&D
- Demand	T&D_D		_	_	_	_	_	31%
- Customer	T&D_D	-	- -	-	-	-		69%
- Commodity	- LWD_C	_	_	_	_	_	_	0%
Fotal	-	-					-	070

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

iberty Utilities (WEMO)				Small	Medium	Large		
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
98.0 Miscellaneous Equipment		(22,470)						T&D
- Demand	T&D_D	(6,894)	(3,422)	(1,123)	(637)	(1,711)	-	31%
- Customer	T&D_C	(15,577)	(10,440)	(2,418)	(1,254)	(1,465)	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		(22,470)	(13,862)	(3,540)	(1,892)	(3,176)	-	
99.0 OTH-Other Tangible Property		(6,740)						T&D
- Demand	T&D_D	(2,068)	(1,026)	(337)	(191)	(513)	-	31%
- Customer	T&D_C	(4,672)	(3,132)	(725)	(376)	(439)	-	69%
- Commodity		-	-	-	-	-	-	0%
otal	_	(6,740)	(4,158)	(1,062)	(567)	(953)	-	
99.1 OTH-Oth Tang Prop - Servers - H/W		(998)						T&D
- Demand	T&D_D	(306)	(152)	(50)	(28)	(76)	_	31%
- Customer	T&D_C	(692)	(464)	(107)	(56)	(65)	_	69%
- Commodity		-	-	-	-	-	_	0%
otal		(998)	(616)	(157)	(84)	(141)	-	
99.3 OTH-Oth Tang Prop - Network - H/W		(11,763)						T&D
- Demand	T&D_D	(3,609)	(1,791)	(588)	(334)	(896)	_	31%
- Customer	T&D_C	(8,154)	(5,465)	(1,266)	(657)	(767)	_	69%
- Commodity		-	-	-	-	-	-	0%
otal ,	-	(11,763)	(7,257)	(1,853)	(990)	(1,663)	-	
99.4 Oth Tang Prop - PC Hardward		(25,108)						T&D
- Demand	T&D_D	(7,703)	(3,824)	(1,254)	(712)	(1,912)	_	31%
- Customer	T&D_C	(17,405)	(11,665)	(2,702)	(1,402)	(1,636)	_	69%
- Commodity		-	-	-	-	-	-	0%
otal		(25,108)	(15,489)	(3,956)	(2,114)	(3,549)	-	
99.5 Oth Tang Prop - PC Software		(348,560)						T&D
- Demand	T&D_D	(106,934)	(53,084)	(17,413)	(9,889)	(26,548)	_	31%
- Customer	T&D_C	(241,626)	(161,947)	(37,504)	(19,457)	(22,718)	_	69%
- Commodity		-	-	(37,304)	-	-	-	0%
otal		(348,560)	(215,031)	(54,917)	(29,346)	(49,266)	-	
otal General Plant		(638,190)						
- Demand	_	(195,789)	(97,193)	(31,882)	(18,106)	(48,607)	_	
- Customer		(442,401)	(296,513)	(68,667)	(35,625)	(41,595)	-	
- Commodity		(442,401)	(290,513)	(08,007)	(33,023)	(41,333)	-	
commodity	_	(638,190)	(393,707)	(100,550)	(53,731)	(90,202)		

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

Liberty Utilities (WEMO)				Small	Medium	Large	-	
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
AD Not Reflected in Subledger	_	15,187						T&D
- Demand	T&D_D	4,659	2,313	759	431	1,157	-	31%
- Customer	T&D_C	10,528	7,056	1,634	848	990	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		15,187	9,369	2,393	1,279	2,147	-	
Proforma Adjustments								
AMR Addition	<u> </u>	(32,014)						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	(32,014)	(21,638)	(5,305)	(4,324)	(748)	-	100%
- Commodity	-	-	-	-	-	-	-	0%
Total		(32,014)	(21,638)	(5,305)	(4,324)	(748)	-	
/ehicle Additions	_	(35,467)						T&D
- Demand	T&D_D	(10,881)	(5,401)	(1,772)	(1,006)	(2,701)	-	31%
- Customer	T&D_C	(24,586)	(16,479)	(3,816)	(1,980)	(2,312)	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		(35,467)	(21,880)	(5,588)	(2,986)	(5,013)	-	
PVC & Steel Mains Replacement		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Fotal		-	-	-	-	-	-	
Rate Case Expense		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		-	-	-	-	-	-	
Kirksville Shop	_	<u>-</u> _						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	_	-	-	-	-	

Liberty Utilities (WEMO)				Small	Medium	Large		
Allocation of Accumulated Depreciation	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Merit Increases		(756)						T&D
- Demand	T&D_D	(232)	(115)	(38)	(21)	(58)	-	31%
- Customer	T&D_C	(524)	(351)	(81)	(42)	(49)	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		(756)	(466)	(119)	(64)	(107)	-	
/acant Positions		(535)					ſ	T&D
- Demand	T&D_D	(164)	(82)	(27)	(15)	(41)	-	31%
- Customer	T&D_C	(371)	(249)	(58)	(30)	(35)	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		(535)	(330)	(84)	(45)	(76)	-	
CAM Adjustments		831						T&D
- Demand	T&D_D	255	127	42	24	63	-	31%
- Customer	T&D_C	576	386	89	46	54	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		831	513	131	70	117	-	
Depreciation Study		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-		-	0%
Total		-	-	-	-	-	-	
EE Reg Asset Adjustment		-						OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	13%
- Customer	OM(F)_C	-	-	-	-	-	-	87%
- Commodity	OM(F)_E	-	-	-	-	-	-	0%
Total		-	-		-	-	-	
otal Proforma Adjustments	_	(67,941)						
- Demand	-	(11,022)	(5,472)	(1,795)	(1,019)	(2,736)	-	
- Customer		(56,919)	(38,330)	(9,170)	(6,330)	(3,089)	-	
- Commodity		=	=	=	=	-		
otal		(67,941)	(43,801)	(10,965)	(7,349)	(5,826)	-	
otal Utility Plant		(4,443,776)						
- Demand	_	(1,879,155)	(932,851)	(306,001)	(173,778)	(466,524)	-	
- Customer		(2,564,621)	(1,753,757)	(402,357)	(172,114)	(236,393)	-	
- Commodity		-	=	-	=		=	
Total		(4,443,776)	(2,686,608)	(708,358)	(345,892)	(702,917)	-	

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>Liberty Utilities (WEMO)</u> Allocation of Rate Base	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Net Plant in Service								
Total Gas Utility Plant	 -							
- Demand		3,697,678	1,835,604	602,129	341,950	917,995	-	
- Customer		8,994,223	6,031,858	1,402,736	759,133	800,496	-	
- Commodity	_	-	-	-	-	-	-	
Total		12,691,901	7,867,461	2,004,866	1,101,083	1,718,491	-	
Total Accumulated Depreciation	_							
- Demand		(1,879,155)	(932,851)	(306,001)	(173,778)	(466,524)	-	
- Customer		(2,564,621)	(1,753,757)	(402,357)	(172,114)	(236,393)	-	
- Commodity	_	-	-	-	-	-	-	
Total		(4,443,776)	(2,686,608)	(708,358)	(345,892)	(702,917)	-	
Net Plant in Service	_							
- Demand		1,818,523	902,752	296,128	168,171	451,471	-	
- Customer		6,429,602	4,278,101	1,000,380	587,019	564,103	-	
- Commodity	<u>_</u>	-	-	-	-	-	-	
Total		8,248,125	5,180,853	1,296,508	755,190	1,015,574	-	
Additions to Utility Plant								
Storage Gas	- 	302,077						СОМ
- Demand		-	-	-	-	-	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	P&A W	302,077	163,750	50,633	29,647	58,047	-	100%
Total		302,077	163,750	50,633	29,647	58,047	-	
Prepaid Expenses	_	19,369						OM(F)
- Demand	OM(F)_D	2,462	1,222	401	228	611	-	13%
- Customer	OM(F)_C	16,886	13,458	2,165	548	715	-	87%
- Commodity	OM(F)_E	22	10	3	2	6	-	0%
Total		19,369	14,690	2,569	778	1,332	-	
Cash Working Capital	_	52,116						CWC
- Demand	CWC	9,065	5,687	1,385	728	1,265	-	17%
- Customer	CWC	30,004	18,823	4,583	2,409	4,188	-	58%
- Commodity	CWC	13,047	8,185	1,993	1,047	1,821	-	25%
Total		52,116	32,696	7,961	4,184	7,275	-	

Cost of Service Study 12 Months Ending June 30, 2017

Liberty Utilities (WEMO)				Small	Medium	Large	-	
Allocation of Rate Base	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Regulatory Asset - Energy Efficiency		13,641					Г	OM(F)
- Demand	OM(F)_D	1,734	861	282	160	431	_	13%
- Customer	OM(F)_C	11,892	9,478	1,525	386	503	_	87%
- Commodity	OM(F)_E	15	3,478 7	1,323	2	4		0%
Total	OWI(I)_L	13,641	10,346	1,810	548	938	-	070
Fotal Additions to Utility Plant								
- Demand		13,262	7,770	2,068	1,116	2,307		
- Customer		58,781	7,770 41,759	2,068 8,273	3,343	2,307 5,407	-	
- Customer - Commodity		315,161	171,953	52,632	3,545 30,698	59,878	-	
Fotal	_	387,204	221,482	62,974	35,156	67,592	-	
	_							
Reductions to Utility Plant Accumulated Deferred Income Taxes		(1,087,294)						T&D
- Demand	T&D D	(333,568)	(165,590)	(54,318)	(30,847)	(82,812)	-	31%
- Customer	T&D_C	(753,726)	(505,174)	(116,990)	(60,695)	(70,867)	_	69%
- Commodity	_	-	-	-	-	-	-	0%
otal	<u> </u>	(1,087,294)	(670,764)	(171,308)	(91,543)	(153,679)	-	
Rate Base Offset		(486,664)					Г	T&D
- Demand	T&D_D	(149,302)	(74,117)	(24,312)	(13,807)	(37,066)	-	31%
- Customer	T&D_C	(337,362)	(226,112)	(52,364)	(27,167)	(31,719)	_	69%
- Commodity	= .	-	-	-	-	-	-	0%
rotal		(486,664)	(300,229)	(76,676)	(40,974)	(68,786)	-	
Customer Deposits		(149,162)					Г	CUS
- Demand		-	-	-	_	-	_	0%
- Customer	CD	(149,162)	(127,320)	(20,495)	(1,347)	-	_	100%
- Commodity		-	-	-	-	_	-	0%
Fotal		(149,162)	(127,320)	(20,495)	(1,347)	_	_	-,-

Cost of Service Study 12 Months Ending June 30, 2017

<u>Liberty Utilities (WEMO)</u> Allocation of Rate Base	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
Contamon Advances								BAAING VC
Customer Advances		<u> </u>						MAINSVC
- Demand	P&A	-	-	-	-	-	-	26%
- Customer	MS_C	-	-	-	-	-	-	74%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Total Deductions								
- Demand		(482,870)	(239,707)	(78,631)	(44,654)	(119,879)	-	
- Customer		(1,240,249)	(858,606)	(189,849)	(89,209)	(102,586)	-	
- Commodity		-	-	-	-	-	-	
Total		(1,723,120)	(1,098,313)	(268,479)	(133,863)	(222,465)	-	
Total Rate Base								
- Demand		1,348,914	670,816	219,566	124,633	333,900	-	
- Customer		5,248,134	3,461,253	818,804	501,153	466,923	-	
- Commodity		315,161	171,953	52,632	30,698	59,878	-	
Total		6,912,209	4,304,022	1,091,002	656,484	860,701	-	

Liberty Utilities (WEMO)				Small	Medium	Large	-	
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	- Interruptible	Classification
Anocation of Oath Expenses	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
		Company					-114	- Tuctor-
Production Expense								
Manufactured Gas Production Expense								
733 Gas Mixing Expenses		-						COM
- Demand		-	-	-	-	-	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	P(S)	-	-	-	-	-	-	100%
Total	<u> </u>	-	-	-	-	-	-	
							_	
735 Miscellaneous Production Expenses		<u>-</u>						СОМ
- Demand		-	-	-	-	-	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	P(S)	-	-	-	-	-	-	100%
Total		-	-	-	-	-	-	
							_	
742 Maintenance of Production Equipment		<u>-</u>						СОМ
- Demand		-	-	-	-	-	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	P(S)	-	-	-	-	-	-	100%
Total		-	-	-	-	-	-	
Total Draduction Fundamen								
Total Production Expenses	-	-						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity Total	_	-		-	-	-		
Total		-	-	-	-	-	-	
Natural Gas Storage Expenses	Ī							
820 Measuring & Regulating Station Equipment		_						
- Demand	_		_	_	_	_	_	
- Customer		-	-	_	-	-	_	
- Commodity		-	-	- -	- -	- -	-	
Total	_							
. 5.00.								
826 Rents		-						
- Demand	-	-	-	-	-	-	-	
- Customer		_	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Total	_	-	-	=	-	=	-	

<u>Liberty Utilities (WEMO)</u> Allocation of O&M Expenses	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
841 Operation Labor and Expenses		-						
- Demand			-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Total	_	-	-	-	-	-	-	
Total Natural Gas Storage Expenses								
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	=	=	
Total		-	-	-	-	-	-	
Transmission Expenses								
Operations Expenses								
851 Operating Supervision & Engineering								
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	-	-	-	<u>-</u>	-	-	-	
Total		-	-	-	-	-	-	
852 Communication System Expenses		<u></u>						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-		
Total		-	-	-	-	-	-	
856 Mains Expense							Ī	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
857 Measuring & Regulating Station Equipment							Ī	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	

Liberty Utilities (WEMO) Allocation of O&M Expenses	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
	ractor	Company	KS	303	IVIGS	103	IIN	Factor
858 Transmission and Compression of Gas by Othe	rs							
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Total		-	-	-	-	-	-	
Total Transmission Operations Expenses		-						
- Demand	•	-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		<u> </u>	-	-	-	=	<u> </u>	
Fotal	_	-	-	-	-	-	-	
Maintenance Expenses								
61 Maintenance Supervision & Engineering		-						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-		
Fotal		-	-	-	-	-	-	
363 Maintenance of Mains								
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-		
Total		-	-	-	-	-	-	
364 Maintenance of Compressor Station Equipmen	ıt .							
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity	_	-	-	-	-	-		
Total Total		-	-	-	-	-	-	
865 Maintenance of Measuring & Regulating Equip	ment							DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	

<u>Liberty Utilities (WEMO)</u> Allocation of O&M Expenses	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
367 Maintenance of Other Equipment		_						
- Demand			_	_	_	_	_	
- Customer		_	-	_	_	_	_	
- Commodity		-	-	-	-	-	_	
Fotal	_	-	-	-	-	-	=	
Fotal Transmission Maintenance Expenses		-						
- Demand	-	-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Гotal	_	-	-	-	-	-	-	
otal Transmission O&M Expenses	_	<u> </u>						
- Demand		-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Total		-	-	-	-	-	-	
Distribution Expenses								
Operations Expenses	_						-	
370 Supervision & Engineering		14,435						OPER
- Demand	Oper_D	3,682	1,828	600	341	914	-	26%
- Customer	Oper_C	10,720	7,350	1,620	698	1,052	-	74%
- Commodity	Oper_E	33	16	5	3	8	-	0%
Fotal		14,435	9,193	2,225	1,042	1,975	-	
71 Load Dispatching & Odorization	_							СОМ
- Demand		-	-	-	-	-	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	AV	-	-	-	-	-	-	100%
otal		-	-	-	-	-	-	
871.1 Load Dispatching & Odorization		447					Г	COM
- Demand		-	-	-	-	-	-	0%
- Customer		-	-	-	-	-	-	0%
- Commodity	AV	447	215	69	47	116	-	100%
Total		447	215	69	47	116	-	

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TAB NAME: Alloc O&M

<u>liberty Utilities (WEMO)</u>				Small	Medium	Large	-	
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
							_	
872 Compressor Station Labor & Expense		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	=	=	-	-	0%
Total		-	-	-	-	-	-	
874 Mains & Service Expenses		180,826					Г	MAINSVC
- Demand	MS_D	46,449	23,058	7,564	4,295	11,531	_	26%
- Customer	MS_C	134,378	92,174	20,020	8,032	14,152	-	74%
- Commodity		-	-	-	-		-	0%
Total		180,826	115,232	27,584	12,327	25,683	-	
375 Meas. & Reg. Sta. Expenses - General	_	3,920						DEM
- Demand	P&A	3,920	1,946	638	363	973	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
Total		3,920	1,946	638	363	973	-	
							_	
876 Meas. & Reg. Sta. Expenses - Industrial		-						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	P(L)	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
377 Meas. & Reg. Sta. Expenses - City Gate		-					Г	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer		-	-	-	-	-	-	0%
- Commodity		-	-	-	-	-	-	0%
rotal .	-	-	-	-	-	-	-	
878 Meter & House Reg. Expenses		12,269					Г	CUS
- Demand		12,209	-	_	_	_	_	0%
- Customer	M&R	- 12,269	- 8,367	- 2,144	- 1,515	- 243	-	100%
- Customer - Commodity	IVIQN	12,269	8,367	2,144		243	-	0%
- Commounty		12,269	8,367	2,144	1,515	243	-	U70

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TAB NAME: Alloc O&M

iberty Utilities (WEMO)				Small	Medium	Large	-	
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
70.0							-	CLIC
379 Customer Installations Expenses		<u> </u>						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MRS	-	-	-	-	-	-	100%
- Commodity		-	-	-	=	-	-	0%
Fotal		-	-	-	-	-	-	
380 Other Expenses								OPER
- Demand	Oper_D	-	-	-	-	-	-	26%
- Customer	Oper_C	-	-	-	-	-	-	74%
- Commodity	Oper_E	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
881 Rents		<u>-</u>					Γ	OPER
- Demand	Oper_D	-	-	-	-	_	_	26%
- Customer	Oper_C	-	-	-	_	-	-	74%
- Commodity	Oper E	-	-	-	_	-	-	0%
Total		-	-	-	-	-	-	
Fotal Operations Expenses		211,897						
- Demand		54,051	26,832	8,802	4,998	13,419	_	
- Customer		157,367	107,891	23,784	10,244	15,447	_	
- Commodity		480	231	74	50	124	_	
otal	_	211,897	134,954	32,660	15,293	28,990	-	
Maintenance Expense 885 Supervision & Engineering		<u>-</u>					Γ	DP
- Demand	DP_D		_	_	_	-	_	21%
- Customer	DP_C	_	-	-	-	_	_	79%
- Commodity	D1_C	_	-	-	-	_	_	0%
otal		-	-	-	-	-	L	0,0
IOC Christiana a languaga anto							г	DP
386 Structures - Improvements		-						
- Demand	DP_D	-	-	-	-	-	-	21%
- Customer- Commodity	DP_C	-	-	-	-	-	-	79%
(ommodity		-	-	-	-	-	- 1	0%

iberty Utilities (WEMO)				Small	Medium	Large		
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
87 Mains		4.022						DP
		4,033						
- Demand	DP_D	855	425	139	79	212	-	21%
- Customer	DP_C	3,178	2,130	493	256	299	-	79%
- Commodity		-	-	-	-		-	0%
Total		4,033	2,555	633	335	511	-	
388 Compressor Station Eqiupment	_	<u>-</u> _					Г	DP
- Demand	DP_D	-	-	-	-	-	-	21%
- Customer	DP_C	-	-	-	-	-	-	79%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
							_	
390 Meas. & Reg. Sta. Equip Industrial		-						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	MIL	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
201 Mars & Bog Sta Equip City Cata		_					-	DP
891 Meas. & Reg. Sta. Equip City Gate		<u> </u>					-	
- Demand	DP_D	-	-	-	-	-	-	21%
- Customer	DP_C	-	-	-	-	-	-	79%
- Commodity Fotal		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
392 Services	_	4,166						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	SV	4,166	3,411	580	154	22	-	100%
- Commodity		-	-	-	-	-	-	0%
Гotal		4,166	3,411	580	154	22	-	
393 Meter & House Regulators		_					П	CUS
- Demand	_	-						0%
- Customer	M&R	-	-	-	-	-	-	100%
- Customer - Commodity	IVIQN	-	-	-	-	-	-	0%
- Commodity Total		<u> </u>			<u> </u>		-	U70

Liberty Utilities (WEMO) Allocation of O&M Expenses	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
894 Other Equipment		-						DP
- Demand	DP_D	-	-	-	-	-	-	21%
- Customer	DP_C	-	-	-	-	-	-	79%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
895 Other Equipment							Г	DP
- Demand	DP_D	-	-	-	-	-	-	21%
- Customer	DP_C	-	-	-	-	-	-	79%
- Commodity		-	-	-	-	-	-	0%
Total	<u> </u>	-	-	-	-	-	-	
Total Maintenance Expense		8,200						
- Demand		855	425	139	79	212	-	
- Customer		7,344	5,541	1,074	409	320	-	
- Commodity		-	-	-	-	-	-	
Total	_	8,200	5,966	1,213	489	533	-	
Total Distribution O&M Expenses		220,097						
- Demand		54,906	27,257	8,941	5,078	13,631	_	
- Customer		164,711	113,432	24,858	10,654	15,768	_	
- Commodity		480	231	74	50	124	-	
Total	_	220,097	140,919	33,873	15,782	29,523	-	
Customer Account Expense								
901 Supervision		-					Г	CUS
- Demand		-	_	-	-	_	_	0%
- Customer	В	-	-	-	-	_	_	100%
- Commodity	5	-	-	-	-	<u>-</u>	_	0%
Total		-	-	-	-	-	-	
902 Meter Reading Expenses		30,393					Г	CUS
- Demand			_	_	_	_	. 1	0%
- Customer	MQ	30,393	25,865	4,212	292	24	_	100%
- Commodity	WIQ	-	25,805	-	-	-	_	0%
Total		30,393	25,865	4,212	292	24		570

Liberty Utilities (WEMO) Allocation of O&M Expenses	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
903 Customer Records & Collection Expenses		127,928						CUS
- Demand		-	-	-	-	_	- 1	0%
- Customer	903Expense	127,928	109,362	17,308	1,138	121	-	100%
- Commodity	·	-	-	-	-	-	-	0%
Total		127,928	109,362	17,308	1,138	121	-	
904 Uncollectible Accounts		39,731						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	904Expense	39,731	39,695	12	10	14	-	100%
- Commodity		-	-	-	-	-	-	0%
Total		39,731	39,695	12	10	14	=	
905 Misc. Customer Accounts Expenses	_						Г	CUS
- Demand		-	-	-	-	-	-	0%
- Customer	EXP_902-904_C	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Total Customer Account Expenses	_	198,052						
- Demand		-	-	-	-	-	-	
- Customer		198,052	174,922	21,531	1,439	159	-	
- Commodity		-	-	-	-	-		
Total		198,052	174,922	21,531	1,439	159	-	
Customer Service Expenses	1							
907 Supervision	- 	-						CUS
- Demand		-	-	-	-	-	-	0%
- Customer	В	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
908 Customer Assistance Expenses	_	10,550					ſ	CUS
- Demand		-	-	-	-	-	-	0%
- Customer	В	10,550	8,997	1,448	95	10	-	100%
- Commodity		-	-	-	-	-	-	0%
Total		10,550	8,997	1,448	95	10	-	

<u>Liberty Utilities (WEMO)</u> Allocation of O&M Expenses	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
909 Informational and Instructional Advertising E	xpenses	2,513						CUS
- Demand	_	-	-	-	-	-	-	0%
- Customer	В	2,513	2,143	345	23	2	-	100%
- Commodity Total		2,513	2,143	345	23	2	-	0%
Total		2,515	2,145	343	25	2	-	
910 Misc Customer Service & Informational Exper	nses							CUS
- Demand		-	-	-	-	-	-	0%
- Customer	В	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Total Customer Service Expenses		13,063						
- Demand			-	-	-	-	_	
- Customer		13,063	11,140	1,793	118	12	-	
- Commodity		- -	-	-	-	-	-	
Total	-	13,063	11,140	1,793	118	12	-	
	Ī							
Sales Promotion Expenses 911 Supervision	_	-						CUS
- Demand			-	-	-	_	_	0%
- Customer	В	-	-	-	-	_	-	100%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
912 Demonstrating & Selling Expenses		-					Г	CUS
- Demand			-	-	-	_	_	0%
- Customer	В	_	-	-	-	_	_	100%
- Commodity	_	-	-	-	-	-	-	0%
Total	1	-	-	-	-	-	-	
913 Advertising		695					Г	CUS
- Demand			_	_	_	_		0%
- Customer	В	695	- 592	95	- 6	1	_	100%
- Commodity		-	-	-	-	-	_	0%
Total		695	592	95	6	1	-	3,3

Liberty Utilities (WEMO) Allocation of O&M Expenses	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible	Classification
Anocation of Oath Expenses	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
							_	
915 Supervision								CUS
- Demand		-	-	-	-	-	-	0%
- Customer	В	-	-	-	-	-	-	100%
- Commodity		-	-	-	-	-	-	0%
Fotal		-	-	-	-	-	-	
916 Miscellaneous Sales Expense		-					Г	CUS
- Demand		-	-	-	-	-	-	0%
- Customer	В	-	-	-	-	-	-	100%
- Commodity		=	-	-	-	=	-	0%
Total		-	-	-	-	-	-	
Total Sales Expense		695						
- Demand	_	-	-	-	-	-	-	
- Customer		695	592	95	6	1	-	
- Commodity		-	-	-	-	-	-	
Гotal	_	695	592	95	6	1	-	
Administrative & General Expense								
Operations							_	
920 Administrative and general salaries		159,288						OM(F)
- Demand	OM(F)_D	20,249	10,052	3,297	1,873	5,027	-	13%
- Customer	OM(F)_C	138,861	110,672	17,805	4,506	5,879	-	87%
- Commodity	OM(F)_E	177	85	27	19	46	-	0%
Fotal		159,288	120,809	21,130	6,397	10,952	-	
921 Office Supplies & Expense	_	73,324					Г	OM(F)
- Demand	OM(F)_D	9,321	4,627	1,518	862	2,314	-	13%
- Customer	OM(F)_C	63,921	50,945	8,196	2,074	2,706	-	87%
- Commodity	OM(F)_E	81	39	13	9	21	-	0%
Total		73,324	55,612	9,726	2,945	5,041	-	
22 Administrative expense Transferred		(33,982)					Г	OM(F)
- Demand	OM(F)_D	(4,320)	(2,145)	(703)	(399)	(1,072)	-	13%
- Customer	OM(F)_C	(29,624)	(23,610)	(3,798)	(961)	(1,254)	-	87%
- Commodity	OM(F)_E	(38)	(18)	(6)	(4)	(10)	-	0%
Total		(33,982)	(25,773)	(4,508)	(1,365)	(2,336)	-	

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TAB NAME: Alloc O&M

Liberty Utilities (WEMO)				Small	Medium	Large		
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
							-	
923 Outside Services		176,525						OM(F)
- Demand	OM(F)_D	22,441	11,140	3,654	2,075	5,571	-	13%
- Customer	OM(F)_C	153,888	122,649	19,732	4,993	6,515	-	87%
- Commodity	OM(F)_E	196	94	30	21	51	-	0%
Total		176,525	133,883	23,416	7,089	12,137	-	
924 Property Insurance - Debits		14,265					Г	OM(F)
- Demand	OM(F)_D	1,813	900	295	168	450	-	13%
- Customer	OM(F)_C	12,436	9,911	1,595	404	526	-	87%
- Commodity	OM(F)_E	16	8	2	2	4	-	0%
Total	, <u> </u>	14,265	10,819	1,892	573	981	-	
925 Injuries and Damages		-					Г	OM(F)
- Demand	OM(F)_D	-	-	-	-	_	_	13%
- Customer	OM(F)_C	_	-	-	-	_	_	87%
- Commodity	OM(F)_E	_	-	-	-	_	_	0%
Total	2 · · · (· / _ =	-	-	-	-	-	-	
926 Employee Welfare/Pensions		139,318						OM(F)
- Demand	OM(F)_D	17,711	8,792	2,884	1,638	4,397	_	13%
- Customer	OM(F)_C	121,453	96,797	15,573	3,941	5,142	_	87%
- Commodity	OM(F) E	155	75	24	16	40	_	0%
Total	OM(1 /_L	139,318	105,664	18,481	5,595	9,579	-	070
927 Franchise Requirements		_						OM(F)
- Demand	OM(F) D						. 1	13%
- Customer	OM(F)_C	-	-	-	-	-	-	87%
- Commodity	OM(F)_E		-			-		0%
Total	Olvi(F)_L	-	-	-	-	-	-	0/0
020 Degulatery Commission France		0.700					г	ON4/E\
928 Regulatory Commission Expense	211/5) 5	9,798					ļ	OM(F)
- Demand	OM(F)_D	1,246	618	203	115	309	-	13%
- Customer	OM(F)_C	8,542	6,808	1,095	277	362	-	87%
- Commodity Total	OM(F)_E	9,798	7,431	1,300	1 393	<u>3</u> 674	-	0%

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Alloc O&M

<u>Liberty Utilities (WEMO)</u>				Small	Medium	Large	-	
Allocation of O&M Expenses	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
929 Duplicate Charges		-					[OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	13%
- Customer	OM(F)_C	-	-	-	-	-	-	87%
- Commodity	OM(F)_E	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
930 Miscellaneous General		-					[OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	13%
- Customer	OM(F)_C	-	-	-	-	-	-	87%
- Commodity	OM(F)_E	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
930.1 General Advertising Expenses		-					[OM(F)
- Demand	OM(F)_D	-	-	-	-	-	-	13%
- Customer	OM(F)_C	-	-	-	-	-	-	87%
- Commodity	OM(F)_E	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
930.2 Miscellaneous General		7,936					1	OM(F)
- Demand	OM(F)_D	1,009	501	164	93	250	-	13%
- Customer	OM(F)_C	6,918	5,514	887	224	293	-	87%
- Commodity	OM(F)_E	9	4	1	1	2	-	0%
Total		7,936	6,019	1,053	319	546	-	
931 Rents		8,454					[OM(F)
- Demand	OM(F)_D	1,075	534	175	99	267	-	13%
- Customer	OM(F)_C	7,370	5,874	945	239	312	-	87%
- Commodity	OM(F)_E	9	5	1	1	2	_	0%
Total		8,454	6,412	1,121	340	581	-	
Total A&G Expense		554,927						
- Demand	_	70,545	35,020	11,488	6,524	17,514	-	
- Customer		483,765	385,560	62,029	15,697	20,480	-	
- Commodity		617	297	95	65	160	-	
Total		554,927	420,877	73,612	22,286	38,153	-	
Total O&M Expense		986,834						
- Demand	_	125,452	62,277	20,429	11,601	31,145	-	
- Customer		860,286	685,645	110,307	27,915	36,419	-	
- Commodity		1,096	528	169	115	284	-	
Total		986,834	748,450	130,904	39,631	67,849	-	

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>.iberty Utilities (WEMO)</u> Allocation of Depreciation and Amortization	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
Intangible Plant		,						
301.0 Organization		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
302.0 Franchises & Consents		-						T&D
- Demand	T&D_D	-	-	-	-	_	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total	•	-	-	-	-	-	-	
303.0 Misc. Intangible Plant		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total	•	-	-	-	-	-	-	
Total Intangible Plant		-						
- Demand	_	-	-	-	-	-	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	-	
Total		-	-	-	-	-	-	
Production Plant								
	_						-	2514
311 Liquified Petroleum Gas Equipment	D(C)	-						DEM
- Demand - Customer	P(S)	-	-	-	-	-	-	100% 0%
- Commodity	-	-	-	-	-	-	-	0%
Fotal	_	<u> </u>	<u> </u>	-	-	-	-	070
Sahal Dandunting Disease								
Total Production Plant	_							
- Demand - Customer		-	-	-	-	-	-	
- Customer - Commodity		-	-	-	-	-	-	
- Commonly Fotal								

<u>Liberty Utilities (WEMO)</u>				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Transmission Plant								
365.0 Land and Land Rights - TP		-					Г	DEM
- Demand	P&A		_	-	-	_	_	100%
- Customer	-	-	-	-	-	_	_	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
365.1 Rights-Of-Way		-						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
							-	
365.2 Rights-Of-Way		<u>-</u>						DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
366.0 Structures & Improvements		29					Г	DEM
- Demand	P&A	29	15	5	3	7	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total	•	29	15	5	3	7	-	
							_	
366.1 Underground Conduit		387						DEM
- Demand	P&A	387	192	63	36	96	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		387	192	63	36	96	-	
367.0 Mains - Cathodic Protection		161					Г	DEM
- Demand	P&A	161	80	26	15	40	_	100%
- Customer	PAA -	-	-	-	- 15	-	-	0%
- Commodity	<u>-</u>	_	_	_	_	_	_	0%
Total		161	80	26	15	40		070

Cost of Service Study 12 Months Ending June 30, 2017

Liberty Utilities (WEMO)				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
267 4 Maior Charl		46.744					Г	DEM
367.1 Mains - Steel		16,741						DEM
- Demand	P&A	16,741	8,311	2,726	1,548	4,156	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		16,741	8,311	2,726	1,548	4,156	-	
367.2 Mains - Plastic	<u></u>						ſ	DEM
- Demand	P&A		-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
369.0 Meas. & Reg. Sta. Equipment							Г	DEM
	P&A	<u>-</u>						
- Demand		-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
370.0 Communication Equipment								DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Total Transmission Plant		17,319						
- Demand		17,319	8,597	2,820	1,602	4,300	-	
- Customer		-	-	-	-	-	-	
- Commodity		-	-	-	-	-	_	
Total	_	17,319	8,597	2,820	1,602	4,300		

Liberty Utilities (WEMO)				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Distribution Expense							_	
374.0 Land & Land Rights		-						DP
- Demand	DP_D	-	-	-	-	-	-	21%
- Customer	DP_C	-	-	-	-	-	-	79%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
374.1 T&D Land		-					Г	DP
- Demand	DP_D	-	-	-	-	-	-	21%
- Customer	DP_C	-	-	-	-	-	-	79%
- Commodity		-	-	-	-	-	-	0%
Total	<u> </u>	-	-	-	-	-	-	
374.2 Land Rights		_					Г	DP
- Demand	DP_D		_			_	_	21%
- Customer	DP_C	_	_	_	_	_	_	79%
- Commodity	- Di _C	_	_	_	_	_	_	0%
Total		-	-	-	-	-	-	070
375.0 Structures & Improvements -DP								DP
		-						
- Demand	DP_D	-	-	-	-	-	-	21%
- Customer	DP_C	-	-	-	-	-	-	79%
- Commodity Total	-	-	-	-		-		0%
Total		-	-	-	-	-	-	
376.0 Mains - Cathodic Protection		2,549						DISMAIN
- Demand	P&A	1,163	577	189	108	289	-	46%
- Customer	P&A	1,386	688	226	128	344	-	54%
- Commodity	-	-	-	-	-	-	-	0%
Total		2,549	1,266	415	236	633	-	
376.1 Mains - Steel		23,525					Г	DISMAIN
- Demand	P&A	10,734	5,329	1,748	993	2,665	-	46%
- Customer	P&A	12,791	6,350	2,083	1,183	3,176	-	54%
- Commodity	-		-	-,	-,	-	-	0%
Total		23,525	11,678	3,831	2,176	5,840		

TAB NAME: Alloc Depre Exp

Cost of Service Study 12 Months Ending June 30, 2017

<u>Liberty Utilities (WEMO)</u> Allocation of Depreciation and Amortization	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
376.2 Mains - Plastic		29,999					Г	DISMAIN
- Demand	P&A	13,688	6,795	2,229	1,266	3,398	-	46%
- Customer	P&A	16,311	8,097	2,656	1,508	4,049	-	54%
- Commodity	-	-	-	-	-	-	-	0%
Total		29,999	14,892	4,885	2,774	7,448	-	
377.0 Compressor Station Equipment - DP		-					Г	DEM
- Demand	P&A	-	-	-	-	-	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
378.0 Meas. & Reg. Sta. Eq-General		3,287					Г	DEM
- Demand	P&A	3,287	1,632	535	304	816	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	=	-	-	-	-	-	0%
Total		3,287	1,632	535	304	816	-	
379.0 Meas. & Reg City Gate		1,543					Г	DEM
- Demand	P&A	1,543	766	251	143	383	-	100%
- Customer	-	-	-	-	-	-	-	0%
- Commodity	-	-	-	-	-	-	-	0%
Total		1,543	766	251	143	383	-	
380.0 Services		139,087					Г	CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	SV	139,087	113,866	19,372	5,127	723	-	100%
- Commodity	-	-	-	-	-	-	-	0%
Total		139,087	113,866	19,372	5,127	723	_	

iberty Utilities (WEMO)				Small	Medium	Large		
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
81.0 Meters	<u></u>	13,861					Г	CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	13,861	9,369	2,297	1,872	324	-	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		13,861	9,369	2,297	1,872	324	-	
82.0 Meter Installations		24,724						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	24,724	16,710	4,097	3,340	577	-	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		24,724	16,710	4,097	3,340	577	-	
83.0 House Regulators		4,723					Ī	CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	R	4,723	2,500	1,392	756	75	-	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		4,723	2,500	1,392	756	75	-	
84.0 House Regulators Installations		2,013						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	R	2,013	1,066	593	322	32	-	100%
- Commodity	-	=	-	=	-	-	-	0%
otal	·	2,013	1,066	593	322	32	-	
85.0 Ind. Meas. & Reg. Sta. Equip		2,508					Г	CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MIL	2,508	-	-	-	2,508	-	100%
- Commodity	-	-	-	-	-	-	-	0%
otal		2,508	-	-	-	2,508	-	
87.0 Other Equipment - DP	<u></u>	<u>-</u> _					Г	DP
- Demand	DP_D	-	-	-	-	-	-	21%
- Customer	DP_C	-	-	-	-	-	-	79%
- Commodity	-	-	-		-	-	-	0%
otal		-	-	-	-	-	-	
otal Distribution Plant	_	247,820						
- Demand	_	30,415	15,099	4,953	2,813	7,551	-	
- Customer		217,405	158,646	32,715	14,236	11,807	-	
- Commodity		=	-	=	-	=	<u>-</u>	
otal		247,820	173,745	37,668	17,049	19,358	-	

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

Liberty Utilities (WEMO)				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
General Plant Expense								
389.0 Land & Land Rights							Ī	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total	•	-	-	-	-	-	-	
390.0 Structures & Improvements		10,635						T&D
- Demand	T&D_D	3,263	1,620	531	302	810	-	31%
- Customer	T&D_C	7,372	4,941	1,144	594	693	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		10,635	6,561	1,676	895	1,503	-	
390.1 Structures & Improvements - Structur	re Frame - GP	_						T&D
- Demand	T&D_D		_	_	_	_	. 1	31%
- Customer	T&D_C			_	_		_	69%
- Commodity	- Tab_c	_	-	_	_	_	_	0%
Total		-	-	-	-	-	-	
200.2 Garage L. Ingeneration								T0.D
390.2 General - Improvements	T0.0.0	-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
CustomerCommodity	T&D_C	-	-	-	-	-	-	69% 0%
•	-			-			-	0%
Total		-	-	-	-	-	-	
390.3 Improvements		-					Г	T&D
- Demand	T&D_D	_	-	_	_	-	_	31%
- Customer	T&D_C	-	-	-	-	-	_	69%
- Commodity		-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
391.0 Office Furniture & Equipment		5,715					Г	T&D
- Demand	T&D_D	1,753	870	286	162	435	_	31%
- Customer	T&D_C	3,962	2,655	615	319	372	_	69%
- Commodity	-	-	2,033	-	-	-	_	0%
Total	_	5,715	3,526	900	481	808		070

<u>Liberty Utilities (WEMO)</u>				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
392.0 Transportation Equipment		2,475					Г	T&D
- Demand	T&D_D	759	377	124	70	189	-	31%
- Customer	T&D_C	1,716	1,150	266	138	161	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		2,475	1,527	390	208	350	-	
392.1 Transportation Equipment<12		12,168					Г	T&D
- Demand	T&D_D	3,733	1,853	608	345	927	-	31%
- Customer	T&D_C	8,435	5,654	1,309	679	793	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		12,168	7,507	1,917	1,024	1,720	-	
393.0 Stores Equipment - GP		-						T&D
- Demand	T&D_D	=	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
394.0 Tools, Shop, & Garage Equip.		3,856					Ī	T&D
- Demand	T&D_D	1,183	587	193	109	294	-	31%
- Customer	T&D_C	2,673	1,791	415	215	251	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		3,856	2,379	608	325	545	-	
395.0 Laboratory Equipment - GP		-					Ī	T&D
- Demand	T&D_D	=	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity		-	-	-	-	-	-	0%
Total	<u> </u>	-	-	-	-	-	-	
396.0 Power Operated Equipment - GP		-					Г	T&D
- Demand	T&D_D	-	-	-	-	-	- 1	31%
- Customer	T&D_C	-	-	-	-	_	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	

<u>iberty Utilities (WEMO)</u>				Small	Medium	Large		
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
396.1 Ditchers		-						T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
396.2 Backhoes		-					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
396.3 Ditches - Group		-					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	=	-	-	-	-	0%
Гotal		-	-	-	-	-	-	
397.0 Communication Equipment	<u></u>	82					Г	T&D
- Demand	T&D_D	25	12	4	2	6	-	31%
- Customer	T&D_C	57	38	9	5	5	-	69%
- Commodity	-	-	-	-	-	-	-	0%
「otal		82	51	13	7	12	-	
397.2 GEN-Comm Eq. Fixed Radios	<u></u>						Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Fotal		-	-	-	-	-	-	
397.3 GEN-Comm Eq. Telemetering								T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
397.5 Communication Equipment		<u>-</u>					Ī	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	<u> </u>			-	-	-	0%
Total		-	-	-	-	-	-	

iberty Utilities (WEMO)				Small	Medium	Large		
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
398.0 Miscellaneous Equipment		2,779					Г	T&D
- Demand	T&D_D	853	423	139	79	212	_	31%
- Customer	T&D_C	1,927	1,291	299	155	181	_	69%
- Commodity	- Tab_c	-	-	-	-	-	_	0%
Fotal	-	2,779	1,715	438	234	393	-	070
99.0 OTH-Other Tangible Property		1,336						T&D
- Demand	T&D_D	410	203	67	38	102	-	31%
- Customer	T&D_C	926	621	144	75	87	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		1,336	824	211	112	189	-	
899.1 OTH-Oth Tang Prop - Servers - H/W	_	292					Г	T&D
- Demand	T&D_D	90	44	15	8	22	-	31%
- Customer	T&D_C	203	136	31	16	19	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		292	180	46	25	41	-	
399.3 OTH-Oth Tang Prop - Network - H/W		3,360					Г	T&D
- Demand	T&D_D	1,031	512	168	95	256	_	31%
- Customer	T&D_C	2,329	1,561	361	188	219	_	69%
- Commodity		-	-	-	-	_	_	0%
Total	ļ	3,360	2,073	529	283	475	-	
200 4 Oth Tang Bron DC Hardward		29,389					г	T&D
899.4 Oth Tang Prop - PC Hardward	T0.D. D.		4.476	4.460	024	2 220		
- Demand	T&D_D	9,016	4,476	1,468	834	2,238	-	31%
- Customer	T&D_C	20,373	13,654	3,162	1,641	1,915	-	69%
- Commodity Fotal	-	29,389	18,130	4,630	- 2,474	- 4,154		0%
otai		25,365	18,130	4,030	2,474	4,134	-	
99.5 Oth Tang Prop - PC Software		123,635						T&D
- Demand	T&D_D	37,930	18,829	6,176	3,508	9,417	-	31%
- Customer	T&D_C	85,705	57,443	13,303	6,902	8,058	-	69%
- Commodity	-	-	-	-	-	-	-	0%
otal		123,635	76,272	19,479	10,409	17,475	-	
otal General Plant		195,723						
- Demand	-	60,045	29,808	9,778	5,553	14,907	-	
- Customer		135,678	90,936	21,059	10,926	12,757	-	
- Commodity		-	-	-	-	-	-	
Fotal		195,723	120,744	30,837	16,479	27,664		

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

Liberty Utilities (WEMO)				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
AD Not Reflected in Subledger		<u>-</u> _					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Proforma Adjustments								
AMR Addition		32,014						CUS
- Demand	-	-	-	-	-	-	-	0%
- Customer	MI	32,014	21,638	5,305	4,324	748	-	100%
- Commodity	-	-	-	-	-	-	-	0%
Total		32,014	21,638	5,305	4,324	748	-	
Vehicle Additions		35,467					Г	T&D
- Demand	T&D_D	10,881	5,401	1,772	1,006	2,701	-	31%
- Customer	T&D_C	24,586	16,479	3,816	1,980	2,312	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		35,467	21,880	5,588	2,986	5,013	-	
PVC & Steel Mains Replacement		<u>-</u> _					Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	
Rate Case Expense		24,826					Г	T&D
- Demand	T&D_D	7,616	3,781	1,240	704	1,891	-	31%
- Customer	T&D_C	17,210	11,535	2,671	1,386	1,618	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		24,826	15,316	3,911	2,090	3,509	-	
Kirksville Shop							Г	T&D
- Demand	T&D_D	-	-	-	-	-	-	31%
- Customer	T&D_C	-	-	-	-	-	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		-	-	-	-	-	-	

Liberty Utilities (WEMO)				Small	Medium	Large	-	
Allocation of Depreciation and	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
Amortization	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
Merit Increases		756					Г	T&D
- Demand	T&D_D	232	115	38	21	58	-	31%
- Customer	T&D_C	524	351	81	42	49	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		756	466	119	64	107	-	
Vacant Positions		535					ſ	T&D
- Demand	T&D_D	164	82	27	15	41	-	31%
- Customer	T&D_C	371	249	58	30	35	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		535	330	84	45	76	-	
CAM Adjustments		(831)						T&D
- Demand	T&D_D	(255)	(127)	(42)	(24)	(63)	-	31%
- Customer	T&D_C	(576)	(386)	(89)	(46)	(54)	-	69%
- Commodity		-	-	-	-	-	-	0%
Total		(831)	(513)	(131)	(70)	(117)	-	
Depreciation Study		99,542					Г	T&D
- Demand	T&D_D	30,538	15,160	4,973	2,824	7,582	-	31%
- Customer	T&D_C	69,004	46,249	10,710	5,557	6,488	-	69%
- Commodity	-	-	-	-	-	-	-	0%
Total		99,542	61,409	15,683	8,381	14,069	-	
EE Reg Asset Adjustment		2,861					Г	OM(F)
- Demand	OM(F)_D	364	181	59	34	90	-	13%
- Customer	OM(F)_C	2,494	1,988	320	81	106	-	87%
- Commodity	OM(F)_E	3	2	0	0	1	-	0%
Total		2,861	2,170	379	115	197	-	
Total Proforma Adjustments		195,170						
- Demand		49,540	24,593	8,067	4,581	12,299	-	
- Customer		145,626	98,101	22,872	13,353	11,301	-	
- Commodity		3	2	0	0	1	-	
Total	_	195,170	122,695	30,939	17,935	23,601	-	

Cost of Service Study 12 Months Ending June 30, 2017

Liberty Utilities (WEMO) Allocation of Depreciation and Amortization	Allocation Factor	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN	Classification Factor
Amortization - Regulatory Asset	<u></u>	662						OM(F)
- Demand	OM(F)_D	84	42	14	8	21	-	13%
- Customer	OM(F)_C	577	460	74	19	24	-	87%
- Commodity	OM(F)_E	1	0	0	0	0	-	0%
Total		662	502	88	27	46	-	
Total Depreciation and Amortization		656,693						
- Demand		157,404	78,138	25,632	14,556	39,077	-	
- Customer		499,286	348,143	76,720	38,534	35,889	-	
- Commodity		4	2	1	0	1	-	
Total		656,693	426,283	102,352	53,091	74,967	-	

<u>liberty Utilities (WEMO)</u>				Small	Medium	Large		
Allocation of Taxes Other Than Income	Allocation	Total	Residential	General Srv	General Srv	General Srv	Interruptible	Classification
	Factor	Company	RS	SGS	MGS	LGS	IN	Factor
social Security Taxes/Employee Benefit (FICA)	_	21,591					Г	OT
- Demand	OT_D	5,654	2,807	921	523	1,404	-	26%
- Customer	OT_C	15,931	11,183	2,365	1,091	1,292	-	74%
- Commodity	OT_E	6	3	1	1	2	-	0%
otal		21,591	13,992	3,287	1,615	2,697	-	
ederal Unemployment	_	189					Г	OT
- Demand	OT_D	50	25	8	5	12	-	26%
- Customer	OT_C	140	98	21	10	11	-	74%
- Commodity	OT_E	0	0	0	0	0	-	0%
otal		189	123	29	14	24	-	
tate Unemployment		592					Г	OT
- Demand	OT_D	155	77	25	14	39	-	26%
- Customer	OT_C	437	307	65	30	35	-	74%
- Commodity	OT_E	0	0	0	0	0	-	0%
otal		592	384	90	44	74	=	
Allocated Taxes Other		3,592					Ī	OT
- Demand	OT_D	941	467	153	87	233	-	26%
- Customer	OT_C	2,650	1,860	393	182	215	-	74%
- Commodity	OT_E	1	0	0	0	0	-	0%
otal		3,592	2,328	547	269	449	=	
d Valorem		161,790					Г	TOTPLT
- Demand	Plant_Total_D	47,136	23,399	7,676	4,359	11,702	-	29%
- Customer	Plant_Total_C	114,654	76,891	17,881	9,677	10,204	-	71%
- Commodity		-	-	-	-	-	-	0%
otal		161,790	100,290	25,557	14,036	21,906	-	
roforma Adjustments TOTI		(5,937)					ı	OT
- Demand	OT_D	(1,555)	(772)	(253)	(144)	(386)	-	26%
- Customer	OT_C	(4,380)	(3,075)	(650)	(300)	(355)	-	74%
- Commodity	OT_E	(2)	(1)	(0)	(0)	(0)	-	0%
otal		(5,937)	(3,847)	(904)	(444)	(742)	-	
otal Taxes Other Than Income								
- Demand	•	52,381	26,003	8,530	4,844	13,004	-	
- Customer		129,432	87,264	20,075	10,689	11,403	-	
- Commodity		6	3	1	1	1	-	
, Fotal	_	181,818	113,270	28,606	15,534	24,408	_	

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

<u>Liberty Utilities (WEMO)</u> Allocation of Income Taxes	Allocation	Total	Residential	Small General Srv	Medium General Srv	Large General Srv	- Interruptible
	Factor	Company	RS	SGS	MGS	LGS	IN
Income Tax Calculation		4.040.540	1 276 120	240.000	402 200	240.020	
Operating Revenues		1,919,548	1,276,439	210,880	183,399	248,829	-
Operating Expenses							
O&M Expenses		986,834	748,450	130,904	39,631	67,849	-
Depreciation & Amortization		656,693	426,283	102,352	53,091	74,967	-
Taxes Other than Income		181,818	113,270	28,606	15,534	24,408	-
Interest on Customer Deposits	CD _	6,712	5,729	922	61	- -	-
Total Expenses excl. Income Taxes		1,832,057	1,293,732	262,785	108,316	167,224	-
Net Income before Taxes & Interest		87,490	(17,293)	(51,905)	75,083	81,605	-
Less:							
Interest Expense	RB -	152,760	95,119	24,111	14,508	19,021	-
Net Income Before Taxes		(65,270)	(112,412)	(76,016)	60,575	62,584	-
State Taxable Income		(65,270)	(112,412)	(76,016)	60,575	62,584	-
State Taxable Income		(65,270)	(112,412)	(76,016)	60,575	62,584	-
Missouri State Income Tax	5.21%	(3,403)	(5,860)	(3,963)	3,158	3,263	-
Federal Taxable Income		(65,270)	(112,412)	(76,016)	60,575	62,584	_
Federal Income Tax	33.18%	(21,653)	(37,293)	(25,219)	20,096	20,762	-
Total Income Tax		(25,056)	(43,153)	(29,182)	23,254	24,025	-
State Income Tax		(3,403)	(5,860)	(3,963)	3,158	3,263	-
Federal Income Tax	-	(21,653)	(37,293)	(25,219)	20,096	20,762	-
Calculated Income Tax		(25,056)	(43,153)	(29,182)	23,254	24,025	-
Actual Income Taxes		(25,056)	(43,153)	(29,182)	23,254	24,025	-

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

TAB NAME: Alloc Income Tax

<u>Liberty Utilities (WEMO)</u> Summary of Allocators	Description	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN
External Allocators							
В	No. of Bills	100.00%	85.28%	13.73%	0.90%	0.10%	0.00%
CD	Customer Deposits	100.00%	85.36%	13.74%	0.90%	0.00%	0.00%
MQ	Meter Quantity	100.00%	85.10%	13.86%	0.96%	0.08%	0.00%
MI	Meters Investment	100.00%	67.59%	16.57%	13.51%	2.34%	0.00%
R	Regulators	100.00%	52.94%	29.47%	16.01%	1.58%	0.00%
SV	Services	100.00%	81.87%	13.93%	3.69%	0.52%	0.00%
M&R	Meters & Regulators	100.00%	68.20%	17.47%	12.35%	1.98%	0.00%
MRS	Meters, Regulators, Services	100.00%	78.16%	14.89%	6.04%	0.92%	0.00%
903Expense	Account 903 Allocator	100.00%	85.49%	13.53%	0.89%	0.09%	0.00%
904Expense	Account 904 Allocator	100.00%	99.91%	0.03%	0.03%	0.03%	0.00%
MIL	Meter Investment Large	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%
AV	Annual Volume	100.00%	48.17%	15.41%	10.49%	25.92%	0.00%
P(S)	Peak Sales Factor (excl. Transportation)	100.00%	55.69%	18.23%	10.12%	15.96%	0.00%
P(L)	Peak Factor (Large)	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%
P&A W	P&A Winter Sales	100.00%	54.21%	16.76%	9.81%	19.22%	0.00%
P&A	Peak and Average Allocator	100.00%	49.64%	16.28%	9.25%	24.83%	0.00%
CWC	Cash Working Capital Factor	100.00%	62.74%	15.28%	8.03%	13.96%	0.00%
Internal Allocators							
T&D_D	Transmission & Distribution Plant	100.00%	49.64%	16.28%	9.25%	24.83%	0.00%
T&D_C		100.00%	67.02%	15.52%	8.05%	9.40%	0.00%
DP_D	Distribution Plant (excl. 374-375, 387)	100.00%	49.64%	16.28%	9.25%	24.83%	0.00%
DP_C		100.00%	67.02%	15.52%	8.05%	9.40%	0.00%
MS_D	Mains & Services	100.00%	49.64%	16.28%	9.25%	24.83%	0.00%
MS_C		100.00%	68.59%	14.90%	5.98%	10.53%	0.00%

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

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TAB NAME: Allocators

<u>Liberty Utilities (WEMO)</u> Summary of Allocators	Description	Total Company	Residential RS	Small General Srv SGS	Medium General Srv MGS	Large General Srv LGS	- Interruptible IN
		Company					
RB	Rate Base	100.00%	62.27%	15.78%	9.50%	12.45%	0.00%
Plant_Total_D	Total Plant	100.00%	49.64%	16.28%	9.25%	24.83%	0.00%
Plant_Total_C		100.00%	67.06%	15.60%	8.44%	8.90%	0.00%
Oper_D	O&M Accounts 871-879	100.00%	49.64%	16.28%	9.25%	24.83%	0.00%
Oper_C		100.00%	68.56%	15.11%	6.51%	9.82%	0.00%
Oper_E		100.00%	48.17%	15.41%	10.49%	25.92%	0.00%
EXP_902-904_C	Account 902-904 Expenses	100.00%	88.32%	10.87%	0.73%	0.08%	0.00%
OM(F)_D	Functional O&M Expenses	100.00%	49.64%	16.28%	9.25%	24.83%	0.00%
OM(F)_C	. and an ear ear	100.00%	79.70%	12.82%	3.24%	4.23%	0.00%
OM(F)_E		100.00%	48.17%	15.41%	10.49%	25.92%	0.00%
OT_D	Other Taxes (75% T&D, 25% OM)	100.00%	49.64%	16.28%	9.25%	24.83%	0.00%
OT_C		100.00%	70.19%	14.85%	6.85%	8.11%	0.00%
OT_E		100.00%	48.17%	15.41%	10.49%	25.92%	0.00%
Derivation of Ext. Allocator B_INPUT	'S	3,843	3,277	528	35	4	_
<u> </u>		100.00%	85.28%	13.73%	0.90%	0.10%	0.00%
CD_INPUT		3,840 \$	3,277 \$	528 \$	35		
		100.00%	85.36%	13.74%	0.90%	0.00%	0.00%
MQ_INPUT		3,752 \$	3,193 \$	520 \$	36 \$	3 \$	-
		100.00%	85.10%	13.86%	0.96%	0.08%	0.00%
MI_INPUT		592,419 \$	400,404 \$	98,160 \$	80,021 \$	13,834 \$; -
		100.00%	67.59%	16.57%	13.51%	2.34%	0.00%
R_INPUT		118,099 \$	62,525 \$				
		100.00%	52.94%	29.47%	16.01%	1.58%	0.00%

FILE NAME: Liberty (WEMO) COSS Model_29SEP17 (CONFIDENTIAL)

Liberty Utilities (WEMO)				Small	Medium	Large	-
Summary of Allocators		Total	Residential	General Srv	General Srv	General Srv	Interruptible
Descri	ption	Company	RS	SGS	MGS	LGS	IN
SV_INPUT		3,129,680	\$ 2,562,159	\$ 435,903	\$ 115,360	\$ 16,258	\$ -
		100.00%	81.87%	13.93%	3.69%	0.52%	0.00%
M&R_INPUT		1,164,798	\$ 794,364	\$ 203,539	\$ 143,828	\$ 23,067	\$ -
		100.00%	68.20%	17.47%	12.35%	1.98%	0.00%
MRS_INPUT		4,294,479	3,356,523	639,442	259,188	39,326	-
		100.00%	78.16%	14.89%	6.04%	0.92%	0.00%
903Expense_INPUT		127,928	\$ 109,362	\$ 17,308	\$ 1,138	\$ 121	\$ -
		100.00%	85.49%	13.53%	0.89%	0.09%	0.00%
904Expense_INPUT		31,651	\$ 31,623	\$ 9	\$ 8	\$ 11	\$ -
		100.00%	99.91%	0.03%	0.03%	0.03%	0.00%
MIL_INPUT		13,834				\$ 13,834	\$ -
		100.00%	0.00%	0.00%	0.00%	100.00%	0.00%
AV_INPUT		4,713,793	2,270,699	726,456	494,665	1,221,973	-
		100.00%	48.17%	15.41%	10.49%	25.92%	0.00%
P(L)_INPUT		143,226				 143,226	_
		100.00%	0.00%	0.00%	0.00%	100.00%	0.00%
P(S)_INPUT		897,338	499,699	163,618	90,796	 143,226	_
		100.00%	55.69%	18.23%	10.12%	15.96%	0.00%

<u>Liberty Utilities (WEMO)</u>			Small	Medium	Large	-
Summary of Allocators	Total	Residential	General Srv	General Srv	General Srv	Interruptible
Description	Company	RS	SGS	MGS	LGS	IN
P&A W_INPUT						
Peak Month Sales (excl. transportation)	897,338	499,699	163,618	90,796	143,226	-
Winter Volumes (excl. transportation)	3,799,828	2,003,617	580,989	361,367	853,854	-
	100.00%	54.21%	16.76%	9.81%	19.22%	0.00%
P&A_INPUT	100.00%	49.64%	16.28%	9.25%	24.83%	0.00%
	100.00%	49.64%	16.28%	9.25%	24.83%	0.00%
CWC_INPUT						
Annual Sales Volume	100.00%	51.11%	16.35%	11.13%	21.40%	0.00%
OM(F)_Total	100.00%	75.84%	13.27%	4.02%	6.88%	0.00%
Other Taxes	100.00%	62.30%	15.73%	8.54%	13.42%	0.00%
T&D_Total	100.00%	61.69%	15.76%	8.42%	14.13%	0.00%
	100.00%	62.74%	15.28%	8.03%	13.96%	0.00%

Classifier Description	Classifier Code	Total	- Demand	- Customer	- Commodity
Classifiers					
Customer Factor	CUS	100.00%	0.00%	100.00%	0.00%
Demand Factor	DEM	100.00%	100.00%	0.00%	0.00%
Commodity Factor	COM	100.00%	0.00%	0.00%	100.00%
Distribution Mains Factor	DISMAIN	100.00%	45.63%	54.37%	0.00%
T&D Plant Factor	T&D	100.00%	30.68%	69.32%	0.00%
Distribution Plant Factor	DP	100.00%	21.21%	78.79%	0.00%
Mains and Services Factor	MAINSVC	100.00%	25.69%	74.31%	0.00%
Total Plant	TOTPLT	100.00%	29.13%	70.87%	0.00%
Accounts 871-879 Factor (OPER)	OPER	100.00%	25.51%	74.27%	0.23%
Functional O&M Classifier	OM(F)	100.00%	12.71%	87.18%	0.11%
Cash Working Capital	CWC	100.00%	17.39%	57.57%	25.03%
Other Taxes Classifier	ОТ	100.00%	26.19%	73.79%	0.03%
Derivations					
376 Distribution Mains	-				
Distribution Mains Factor	DISMAIN	100.00%	45.63%	54.37%	0.00%

Mains Classifier

		Liberty	Util	ities				
		Minimum-S						
	Minimum System	% of Type		Total Type	HW	Adj. Cost Per		Cost of
Туре	Pipe Size	Footage		Footage		Foot	Mir	nimum System
Cast Iron	3	27.80%		107,314	\$	18.88	\$	2,026,352
Plastic	1	3.00%		3,097,889	\$	4.08	\$	12,641,037
Steel	1	1.24%		5,725,082	\$	11.96	\$	68,491,477
Minimum System	Cost						\$	83,158,866
Total Cost							\$	152,943,834
Minimum System								54.37%
Size	Туре	Original Cost		HW Adj. Cost		Qty (Footage)		
3	Cast Iron	\$ 81,834	\$	563,377		29,836		\$18.88
4	Cast Iron	\$ 237,338	\$	1,633,343		49,989		
6	Cast Iron	\$ 58,195	\$	166,633		1,570		
8	Cast Iron	\$ 70,417	\$	229,263		19,985		
10	Cast Iron	\$ 41,712	\$	144,602		5,338		
12	Cast Iron	\$ 2,399	\$	17,497		596		
1	Plastic	\$ 152,745	\$	378,633		92,790		\$4.08
1.25	Plastic	\$ 24,105	\$	24,929		2,101		
2	Plastic	\$ 15,121,900	\$	21,728,992		2,178,642		
3	Plastic	\$ 5,524,837	\$	10,612,293		353,582		
4	Plastic	\$ 7,139,999	\$	8,918,107		331,649		
6	Plastic	\$ 5,393,439	\$	8,939,893		128,472		
8	Plastic	\$ 585,637	\$	1,218,508		10,503		
24	Plastic	\$ 1,366	\$	1,511		150		
1	Steel	\$ 126,837	\$	847,751		70,862		\$11.96
1.25	Steel	\$ 13,297	\$	13,150		1		
2	Steel	\$ 7,436,736	\$	43,409,942		3,914,636		
3	Steel	\$ 1,196,093	\$	8,543,146		540,979		
4	Steel	\$ 3,182,368	\$	15,010,316		610,777		
6	Steel	\$ 3,931,453	\$	15,584,302		385,444		
8	Steel	\$ 849,346	\$	3,510,693		39,406		
12	Steel	\$ 1,385,198	\$	11,446,953		162,977		
Grand Total		\$ 52,557,250	\$	152,943,834		8,930,285		

Demand Allocator: NEMO

Peak and Average Methodology

Liberty Utilities (NEMO)				Small	Medium	Large	
Development of Demand Allocator		Total	Residential	General Srv	General Srv	General Srv	Interruptible
		Company	RS	SGS	MGS	LGS	IN
R-Square			97.5%	95.8%	95.1%	95.7%	98.6%
Heat use per DD (coefficient)			0.111	0.230	1.547	13.252	47.488
Heat use at Design Day DD	80.5		8.913	18.543	124.544	1,066.809	3,822.746
Base use at Design Day		_	0.284	0.872	11.412	409.833	590.378
Total use at Design Day			9.198	19.415	135.956	1,476.642	4,413.125
Design Day Customers		18,713	16,208	2,149	333	21	2
Design Day Use		275,908	149,075	41,724	45,273	31,009	8,826
Design Day Use (%)		100.00%	54.03%	15.12%	16.41%	11.24%	3.20%
Annual Throughput (CCF)		21,557,748	9,802,035	2,869,722	4,017,926	3,954,586	913,480
Average Daily Use	365	59,062	26,855	7,862	11,008	10,834	2,503
Design Day Use	_	275,908					
Load Factor		21%					
Average Daily Use (%)		100.00%	45.47%	13.31%	18.64%	18.34%	4.24%
Design Day Use (%)		100.00%	54.03%	15.12%	16.41%	11.24%	3.20%
Peak and Average Allocator (%)		100.00%	52.20%	14.73%	16.89%	12.76%	3.42%

Demand Allocator: SEMO

Peak and Average Methodology

<u>Liberty Utilities (SEMO)</u>				Small	Medium	Large	
Development of Demand Allocator		Total	Residential	General Srv	General Srv	General Srv	Interruptible
	Co	ompany	RS	SGS	MGS	LGS	IN
R-Square			97.0%	94.9%	97.4%	63.6%	67.9%
Heat use per DD (coefficient)			0.110	0.231	1.507	23.264	10.839
Heat use at Design Day DD	72		7.911	16.636	108.483	1,674.985	780.407
Base use at Design Day			0.315	0.687	8.026	653.601	304.331
Total use at Design Day			8.226	17.323	116.509	2,328.586	1,084.738
Design Day Customers		31,876	27,933	3,378	527	34	4
Design Day Use		433,206	229,779	58,516	61,400	79,172	4,339
Design Day Use (%)		100.00%	53.04%	13.51%	14.17%	18.28%	1.00%
Annual Throughput (CCF)	31,	893,796	13,042,563	3,269,711	4,317,596	10,700,999	562,926
Average Daily Use	365	87,380	35,733	8,958	11,829	29,318	1,542
Design Day Use		433,206					
Load Factor		20%					
Average Daily Use (%)		100.00%	40.89%	10.25%	13.54%	33.55%	1.77%
Design Day Use (%)		100.00%	53.04%	13.51%	14.17%	18.28%	1.00%
Peak and Average Allocator (%)	<u> </u>	100.00%	50.59%	12.85%	14.05%	21.36%	1.16%

Demand Allocator: WEMO

Peak and Average Methodology

<u>Liberty Utilities (WEMO)</u>				Small	Medium	Large	
Development of Demand Allocator		Total	Residential	General Srv	General Srv	General Srv	
		Company	RS	SGS	MGS	LGS	
R-Square			98.5%	97.5%	99.0%	91.3%	
Heat use per DD (coefficient)			0.128	0.263	2.259	70.901	
Heat use at Design Day DD	80.5		10.335	21.161	181.869	5,707.540	
Base use at Design Day		_	0.268	0.669	8.571	90.046	
Total use at Design Day			10.603	21.830	190.440	5,797.586	
Design Day Customers		3,925	3,354	534	34	3	
Design Day Use		71,087	35,562	11,657	6,475	17,393	
Design Day Use (%)		100.00%	50.03%	16.40%	9.11%	24.47%	
Annual Throughput (CCF)		3,850,081	1,826,364	601,651	386,805	1,035,261	
Average Daily Use	365	10,548	5,004	1,648	1,060	2,836	
Design Day Use		71,087					
Load Factor		15%					
Average Daily Use (%)		100.00%	47.44%	15.63%	10.05%	26.89%	
Design Day Use (%)		100.00%	50.03%	16.40%	9.11%	24.47%	
Peak and Average Allocator (%)		100.00%	49.64%	16.28%	9.25%	24.83%	

Meters, Regulators, Meter Installation and Services Allocator: NEMO

Liberty Utilities (NEMO)	Cost per	Cost per	Cost per	Cost per			Small	Medium	Large	
Development of Meter, Meter	Meter	Meter	Regulator	Service	Total	Residential	General Srv	General Srv	General Srv	Interruptible
Installation and Service Allocator		Installation			Company	RS	SGS	MGS	LGS	IN
Number of meters (Year end)										
AM-250B-5	\$ 123	\$ 103	\$ 19	\$ 801	1	-	1	-	-	-
AM-5B-4	123	103	19	801	103	98	5	-	•	-
AM-AC-250-4	123	103	19	801	10,594	9,585	1,008	1	-	-
AM-AC-630-4	423	253	207	967	162	11	150	1		-
AM-AL 630-4	451	308	207	995	1	-	1	-	-	-
AM-AL-1000-5	1,315	740	207	1,451	161	5	5	151	-	-
AM-AL-1400-5	1,785	975	207	1,686	24	-	-	24	-	-
AM-AL-175-4	123	103	19	801	65	63	2	-	-	-
AM-AL-225-4	123	103	19	801	4	4	-	-	-	-
AM-AL-2300-5	2,475	1,320	207	4,916	31	-	1	30	-	-
AM-AL-250-4	123	103	19	801	2,603	2,387	216	-		-
AM-AL-425-4	351	217	207	931	395	58	335	2	-	-
AM-AL-5000-5	2,812	1,529	922	5,099	19	-	-	19	-	-
AM-AL-5000-6	2,867	1,639	922	5,154	4	-	-	3 .	1	-
AM-AL-800-5	1,105	635	207	1,322	17	1	-	16	-	-
AM-GT12-10	10,410	5,410	2,625	11,655	-	-	-	-	-	-
AM-GT4-10	10,410	5,410	2,625	11,655	-	-	-	-		-
AM-GT6-6	10,410	5,410	2,625	11,655	2	-	-	1	-	1
DR-11M-5	7,361	3,886	922	8,562	5	-	-	5	-	-
DR-11M-6	7,361	3,886	922	8,562	7		-	2	4	1
DR-16M-6	10,410	5,410	922	10,086	7	-	-	6	1	-
DR-23M-6	19,721	10,066	922	16,310	1	-	-	1	-	-
DR-3M-5	3,919	2,165	922	5,680	15	-	-	15		-
DR-3M-6	3,919	2,165	922	5,680	1	-	-	-	1	-
DR-5M-5	3,327	1,869	922	5,384	13	-	_	13	_	_
DR-5M-6	3,327	1,869	922	5,384	12			9	3	-
DR-7M-5	6,350	3.380	922	6,895	5		_	5		_
DR-7M-6	6,349	3,380	922	6,895	8	-	_	5	3	_
DY-DUMMY-4	123	103	19	801	56	55	1			_
IT-S-175-4	123	103	19	801	434	396	38	_		_
IT-S-1A-4	123	103	19	801	18	16	2	_		_
IT-S-1A-5	123	103	19	801	1	-	1	_	_	_
IT-S-250-4	123	103	19	801	80	73	7	_		_
LA-L-175-4	123	103	19	801	4	3	1			_
LA-L-250-4	151	117	19	815	56	47	9			
RW-R275 TC-4	123	103	19	801	441	391	50			
SE-R-175-4	123	103	19	801	107	96	11			
SE-R-200-4	123	103	19	801	104	97	7			
SE-R-250-4	123	103	19	801	9	9	_ ′	-	•	-
	151	117	19				197	-	•	•
SE-R-275-4	151	103		815	1,760	1,563 45	7			_
SE-R-275TC-4			19	801	52	45	/	-	-	-
SE-R-3000-5	2,557	1,484	922	4,999	6	-		6	-	-
SE-R-415-4	351	217	207	931	11	-	11	-	-	-
SE-R-5000-5	2,867	1,639	922	5,154	10	•	•	10	-	-
SE-R-750-5	1,077	580	207	1,294	4	•		4		-
SE-T-18-6	10,410	5,410	2,625	11,655	-	-				-
SE-T-30-6	10,410	5,410	2,625	12,322	2	-	-	1	1	-
SE-T-57-6	10,410	5,410	2,625	12,322	1		-	-	1	-

Meters, Regulators, Meter Installation and Services Allocator: NEMO

<u>Liberty Utilities (NEMO)</u> Development of Meter, Meter Installation and Service Allocator	Cost per Meter	Cost per Meter Installation	Cost per Regulator	Cost per Service	Total Company	Residential RS		Small General Srv SGS		Medium General Srv MGS		Large General Srv LGS		- Interruptible IN
Meters											H			
Total Meters					17,416	15,003		2,066		330		15		2
Cost of Meters					\$ 3,222,306	\$ 1,919,913	\$	393,236	\$	794,897	9	\$ 96,489	\$	17,771
MI					100.00%	59.58%		12.20%	_	24.67%		2.99%		0.55%
MQ					100.00%	86.23%	_	11.87%		1.90%	_	0.00%	_	0.00%
Meter Installations														
Total Meter Installations					17,416	15,003		2,066		330		15		2
Cost of Meter Installations					\$ 2,354,405	\$ 1,576,826	\$	281,818	\$	435,137	3	\$ 51,327	\$	9,297
Meter Installations					100.00%	66.97%		11.97%		18.48%		2.18%		0.39%
Regulators														
Total Regulators					17,416	15,003		2,066		330		15		2
Cost of Regulators					\$ 599,743	\$ 300,836	\$	134,236	\$	143,884	3	\$ 17,240	\$	3,547
R					100.00%	50.16%		22.38%		23.99%		2.87%		0.59%
Services											ŀ			
Number of Meters per Service						1.00		1.00		1.00		1.00		1.00
Total Services					17,416	15,003		2,066		330		15		2
Cost of Services					\$ 14,995,849	\$ 12,058,918	\$	1,735,926	\$	1,064,142	9	\$ 116,646	\$	20,217
SV					100.00%	80.42%	_	11.58%		7.10%		0.78%		0.13%
Meter, Meter Installation and Regulator											ŀ			
Meter, Meter Installations, and Regulato	r				17,416	15,003		2,066		330		15		2
Cost					\$ 6,176,454	\$ 3,797,575	\$	809,291	\$	1,373,917	9	\$ 165,056	\$	30,615
M&R					100.00%	61.48%	_	13.10%		22.24%		2.67%		0.50%
Meters, Regulators, and Services											H			
Meters, Regulators, and Services					17,416	15,003		2,066		330		15		2
Costs					\$ 21,172,303	\$ 15,856,493	\$	2,545,217	\$	2,438,059	9		\$	50,832
MRS					100.00%	74.89%	_	12.02%	_	11.52%	_	1.33%	_	0.24%

Meters, Regulators, Meter Installation and Services Allocator: SEMO

<u>Liberty Utilities (SEMO)</u>	Cost per	Cost per	Cost per	Cost per			Small	Medium	Large	
Development of Meter, Meter	Meter	Meter	Regulator	Service	Total	Residential	General Srv	General Srv	General Srv	Interruptible
Installation and Service Allocator		Installation			Company	RS	SGS	MGS	LGS	IN
Number of meters (Year end)										
realiser of meters (real end)										
AM-5B-4	\$ 123	\$ 103	\$ 19	\$ 801	364	333	31	- '	-	-
AM-AC-250-4	123	103	19	801	16,629	15,046	1,583	-	-	-
AM-AC-630-4	423	253	207	967	222	18	201	3	-	-
AM-AL 630-4	451	308	207	995	3	-	3 .	-	-	-
AM-AL-1000-5	1,315	740	207	1,451	234	6	18	210	-	-
AM-AL-175-5	123	103	19	801	1		1	-	-	-
AM-AL-250-4	123	103	19	801	20	17	3	-	-	-
AM-AL-425-4	351	217	207	931	465	75	387	3	-	-
AM-AL-800-5	1,105	635	207	1,322	32	1	3	28	-	-
IT-S-175-4	123	103	19	801	7,550	7,015	535			
IT-S-1A-4	123	103	19	801	631	595	36	_	-	
IT-S-250-4	123	103	19	801	333	302	31	-	_	_
RW-R275 TC-4	123	103	19	801	439	407	32	_		
SE-R-175-4	123	103	19	801	297	268	29	-	_	_
SE-R-175-5	123	103	19	801	3	-	3	_	_	_
SE-R-200-4	123	103	19	801	297	273	24	-		_
SE-R-275-4	151	117	19	815	2,564	2,260	304	_		
SE-R-275TC-4	123	103	19	801	74	70	4	_	_	
SE-R-3000-5	2,557	1,484	922	4,999	98	1	2	95		
SE-R-415-4	351	217	207	931	17	5	12	-		
SE-R-750-5	1,077	580	207	1,294	11	1	1	9	_	_
AM-AL-1400-5	1,785	975	207	1,686	11			11		
AM-AL-2300-5	2,475	1,320	207	4,916	4		1	3		
AM-AL-5000-5	2,812	1,529	922	5,099	4		-	3	1	
DR-11M-5	7,361	3,886	922	8,562	3			3		
DR-11M-6	7,361	3,886	922	8,562	14	-	_	7	7	-
DR-11M-6 DR-16M-6	10,410	5,410	922	10,086	9		-	4	4	1
	19,721	10,066	922	16,310	5	•	-	1	3	1
DR-23M-6	3,919	2,165	922	5,680	24	•	-	24	3	1
DR-3M-5						•	-			•
DR-3M-6	3,919	2,165	922 922	5,680	11 18	-	-	10 18	1	-
DR-5M-5	3,327	1,869		5,384		•	-			٠,
DR-5M-6	3,327	1,869	922	5,384	16	•	-	14	1	1
DR-7M-5	6,350	3,380	922	6,895	5	-	-	5		-
DR-7M-6	6,349	3,380	922	6,895	16	-	-	11	5	-
RO-RO-3M-6	3,919	2,165	922	5,680	1	•	-	1	•	-
SE-R-10000-5	7,361	3,886	922	8,562	6	•	-	6	-	-
SE-R-10000-6	7,361	3,886	922	8,562	1	•	-	1	-	•
SE-R-1000-5	1,315	740	207	1,451	1	•	-	1	-	•
SE-R-1600-5	3,837	2,001	207	2,712	10	-	-	10	-	-
SE-R-3-5	2,557	1,484	922	4,906	1	-	-	1	-	-
SE-R-5000-5	2,867	1,639	922	5,154	41	-	-	39	2	-
SE-T-18-6	10,410	5,410	2,625	11,655	1	-	-	1	-	-
AM-GT12-10	10,410	5,410	2,625	11,655		-	-	-	-	-
SE-T-18-10	10,410	5,410	2,625	11,655	- 1	-	-	-	-	-
SE-T-57-10	10,410	5,410	2,625	12,322	- 1	-	-	-	-	-
AM-AL-175-4	123	103	19	801	26	26	-	-	-	-
DY-DUMMY-4	123	103	19	801	38	38	-	-	-	-
EQ-R 275-4	123	103	19	801	1	1	-	-	-	-
LA-L-250-4	151	117	19	815	2	2	-	-	-	-
SE-R-250-4	123	103	19	801	1	1	-	-	-	-
SE-T-30-6	10,410	5,410	2,625	12,322	1	-	-	-	1	-
SE-T-27-6	10,410	5,410	2,625	12,322	1				1	_

Meters, Regulators, Meter Installation and Services Allocator: SEMO

<u>Liberty Utilities (SEMO)</u> Development of Meter, Meter Installation and Service Allocator	Cost per Meter	Cost per Meter Installation	Cost per Regulator	Cost per Service		Total Company		Residential RS		Small General Srv SGS		Medium General Srv MGS		Large General Srv LGS		- Interruptible IN
													H			
Meters Total Meters						30,556		26,761		3,244		522		26		3
Cost of Meters					Ś	5,542,241	ć	3,400,801	ć	593,638	ć	1,293,655			ć	33,458
MI					٠	100.00%	<u> </u>	61.36%	-	10.71%	÷	23.34%		3.98%	7	0.60%
MQ						100.00%		87.66%		10.71%		1.71%		0.00%		0.00%
MQ						100.00%		87.00%		10.03%		1./1%	_	0.00%	_	0.00%
Meter Installations													t			
Total Meter Installations						30,556		26,761		3,244		522		26		3
Cost of Meter Installations					\$	4,084,142	\$	2,800,730	\$	431,504	\$	718,958	3	\$ 115,605	\$	17,345
Meter Installations						100.00%		68.58%		10.57%		17.60%		2.83%		0.42%
Regulators													H			
Total Regulators						30,556		26,761		3,244		522	H	26		3
Cost of Regulators					Ś	1,028,575	ς	532,274	Ś	181,725	Ś	284,424			Ś	2,767
R					Ť	100.00%	<u> </u>	51.75%	-	17.67%	÷	27.65%		2.66%	Y	0.27%
IX.						100.0070		31.7370		17.0770		27.0370	T	2.0070		0.2770
Services													t			
Number of Meters per Service								1.00		1.00		1.00		1.00		1.00
Total Services						30,556		26,761		3,244		522		26		3
Cost of Services					\$	26,294,828	\$	21,500,147	\$	2,715,953	\$	1,812,151	3	\$ 234,796	\$	31,780
SV						100.00%		81.77%		10.33%		6.89%		0.89%		0.12%
Meter, Meter Installation and Regulator																
Meter, Meter Installations, and Regulato	or					30,556		26,761		3,244		522		26		3
Cost					\$	10,654,958	\$	6,733,805	\$	1,206,866	\$	2,297,037	3	\$ 363,680	\$	53,570
M&R						100.00%	1	63.20%		11.33%		21.56%		3.41%		0.50%
Meters, Regulators, and Services													H			
Meters, Regulators, and Services						30.556		26,761		3.244		522		26		3
Costs					Ś	36,949,786	Ś	28,233,952	Ś	3,922,820	Ś	4,109,188	9		Ś	85,350
MRS					ŕ	100.00%	-	76.41%	-	10.62%	÷	11.12%		1.62%	_	0.23%

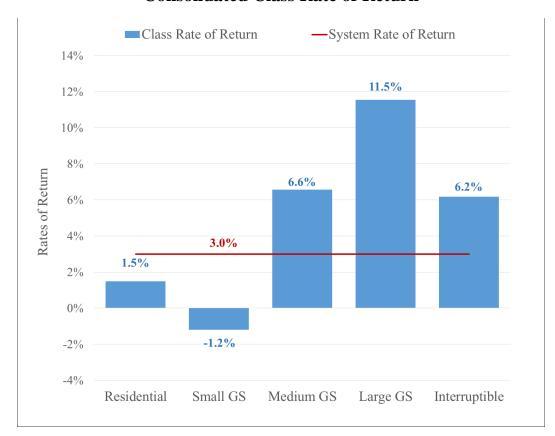
Meters, Regulators, Meter Installation and Services Allocator: WEMO

Liberty Utilities (WEMO)	Cost per	Cost per	Cost per	Cost per			Small	Medium	Large	
Development of Meter, Meter	Meter	Meter	Regulator	Service	Total	Residential	General Srv	General Srv	General Srv	
Installation and Service Allocator		Installation			Company	RS	SGS	MGS	LGS	-
Number of meters (Year end)										
AM-5B-4	\$ 123	\$ 103	\$ 19	\$ 801	28	25	3	-	-	
AM-AC-250-4	123	103	19	801	2,662	2,336	326	-	-	-
AM-AC-630-4	423	253	207	967	15	-	14	1	-	-
AM-AL 630-4	451	308	207	995	1	-	1		-	-
AM-AL-1000-5	1,315	740	207	1,451	19	-	1	18		-
AM-AL-1400-5	1,785	975	207	1,686	2	-	1	1	-	-
AM-AL-175-4	123	103	19	801	22	22			-	-
AM-AL-175-6	123	103	19	801	1	-	-	-	1	-
AM-AL-250-4	123	103	19	801	15	14	1	-	-	-
AM-AL-250TC-4	123	103	19	801	35	33	2	-	-	
AM-AL-425-4	351	217	207	931	114	6	108	-	-	
AM-GT12-10	10,410	5,410	2,625	11,655	-	-	-	-	-	-
DR-11M-6	7,361	3,886	922	8,562	1	-	-	-	1	
DR-3M-5	3,919	2,165	922	5,680	7	-	-	7	-	
DR-5M-5	3,327	1,869	922	5,384	4	-	-	4	-	-
DR-7M-5	6,350	3,380	922	6,895	1	-	-	-	1	
IT-S-175-4	123	103	19	801	395	376	19	-	-	
IT-S-1A-4	123	103	19	801	9	8	1	-	-	-
T-S-250-4	123	103	19	801	54	50	4			
A-L-250-4	151	117	19	815	1	-	1	-	-	
RW-R275 TC-4	123	103	19	801	69	63	6	-	-	-
SE-R-175-4	123	103	19	801	24	23	1		-	
6E-R-200-4	123	103	19	801	41	40	1	-	-	
6E-R-275-4	151	117	19	815	176	163	13	-	-	-
6E-R-275TC-4	123	103	19	801	42	32	10	-	-	
6E-R-3000-5	2,557	1,484	922	4,999	3	-	-	3	-	
SE-R-415-4	351	217	207	931	9	2	7	-	-	-
SE-R-5000-5	2,867	1,639	922	5,154	2	-	-	2		

Meters, Regulators, Meter Installation and Services Allocator: WEMO

Liberty Utilities (WEMO) Development of Meter, Meter Installation and Service Allocator	Cost per Meter	Cost per Meter Installation	Cost per Regulator	Cost per Service		Total Company		Residential RS		Small General Srv SGS		Medium General Srv MGS		Large General Srv LGS		- Interruptible IN
Meters																
Total Meters						3,752		3,193		520		36		3		-
Cost of Meters					\$	592,419	\$	400,404	\$	98,160	\$	80,021	\$	13,834	\$	-
MI						100.00%		67.59%		16.57%		13.51%		2.34%		0.00%
MQ						100.00%		85.17%		13.87%		0.96%		0.00%		0.00%
Meter Installations																
Total Meter Installations						3,752		3,193		520		36		3		-
Cost of Meter Installations					\$	454,280	\$	331,434	\$	70,575	\$	44,901	\$	7,369	\$	-
Meter Installations						100.00%		72.96%		15.54%		9.88%		1.62%		0.00%
Regulators																
Total Regulators						3,752		3,193		520		36		3		-
Cost of Regulators					\$	118,099	\$	62,525	\$	34,803	\$	18,906	\$	1,864	\$	-
R						100.00%		52.94%		29.47%		16.01%		1.58%		0.00%
Services																
Number of Meters per Service								1.00		1.00		1.00		1.00		1.00
Total Services						3,752		3,193		520		36		3		-
Cost of Services					\$	3,129,680	\$	2,562,159	\$	435,903	\$	115,360	\$	16,258	\$	
SV						100.00%		81.87%		13.93%		3.69%		0.52%		0.00%
Meter, Meter Installation and Regulator																
Meter, Meter Installations, and Regulato	r					3.752		3,193		520		36		3		_
Cost					\$	1,164,798	\$	794,364	\$	203,539	\$	143,828	\$		\$	-
M&R						100.00%		68.20%	_	17.47%	_	12.35%	_	1.98%		0.00%
Meters, Regulators, and Services																
Meters, Regulators, and Services						3.752		3.193		520		36		3		
Costs					Ś	4,294,479	Ś	3,356,523	Ś	639,442	Ś	259,188	Ś		Ś	-
MRS					Ė	100.00%	<u> </u>	78.16%	÷	14.89%	÷	6.04%	÷	0.92%	÷	0.00%

Consolidated Class Rate of Return



Consolidated Revenue Targets

Proposed Revenue Targets

Liberty Utilities (Midstates Natural Gas) All Regi			Small	Medium	Large	
Target Revenues	Total	Residential	General Srv	General Srv	General Srv	Interruptible
	Company	RS	SGS	MGS	LGS	IN
	77.20/	72.00/	54.00/	02.00/	422.70/	00.20
Target Revenues	77.2%	72.8%	54.0%	93.0%	123.7%	90.39
Class Revenues at EROR	32,746,555	21,881,671	3,970,191	3,923,854	2,642,032	328,807
Current Class Revenues	25,278,696	15,919,384	2,143,717	3,650,985	3,267,850	296,760
Difference (\$)	7,467,859	5,962,287	1,826,473	272,869	(625,818)	32,047
Difference (%)	29.5%	37.5%	85.2%	7.5%	-19.2%	10.89
Target Revenues	32,746,555	21,251,988	3,373,604	4,337,185	3,431,243	352,536
Current Revenues	25,278,696	15,919,384	2,143,717	3,650,985	3,267,850	296,760
\$ Difference	7,467,859	5,332,604	1,229,886	686,200	163,393	55,776
% Difference	29.5%	33.5%	57.4%	18.8%	5.0%	18.89
Customers	53,394	46,475	5,965	895	53	5
Usage (CCF)	65,834,557	29,558,131	8,022,149	10,141,947	16,505,651	1,606,679
Target Increase (\$/ Customer/ Mo.)		\$ 9.56	\$ 17.18	\$ 63.87	\$ 259.35	\$ 858.09
Target Increase (\$ per CCF)		\$ 0.18	\$ 0.15	\$ 0.07	\$ 0.01	\$ 0.03
Revenue Targets	Total	Residential	General Srv	General Srv	General Srv	Interruptible
	Company	RS	SGS	MGS	LGS	IN
Move to EROR		50.00%	50.00%			
Class revenues at overall Increase		20,622,305	2,777,017			
Class revenues at current rates		15,919,384	2,143,717			
Increase in class revenues to achieve overall incr	rease	4,702,921	633,299			
Additional increase in class revenues to achieve	EROR	1,259,366	1,193,174			
Class revenues at overall increase plus % move t	o EROR	21,251,988	3,373,604			
Class revenues at current rates		15,919,384	2,143,717			
Target increase (\$)		5,332,604	1,229,886			
Target increase (%)		33.5%	57.4%			
Revenues to be recovered from other rate class	1,226,270	629,683	596,587			

Summary of Proposed Consolidated Rates

Liberty Utilities (Midstates Natural Gas) All Regi				Small		Medium		Large		-
Summary of Rates		Residential		General Srv		General Srv		General Srv		Interruptible
		RS		SGS		MGS		LGS		IN
Proposed Rates										
Customer Charge (per meter)	\$	22.50	\$	34.00	\$	140.00	\$	750.00	\$	750.00
Distribution Commodity Rate (per CCF)	\$	0.29446	\$	0.11716	\$	0.27935	\$	0.17926	\$	0.18908
				Small		Medium		Large		
Current		Residential		General Srv		General Srv		General Srv		Interruptible
Rates		RS		SGS		MGS		LGS		IN
	T									
Current Rates (NEMO)										
Customer Charge (per meter)		\$20.00		\$28.26		\$124.60		\$623.01		\$623.01
ISRS Charge (per bill)		\$1.49		\$2.10		\$9.28		\$46.38		\$46.38
Distribution Commodity Rate (per CCF)	\$	0.27690	\$	0.07187	\$	0.23180	\$	0.14583	\$	0.14583
Current Rates (SEMO)	Ī									
Customer Charge (per meter)		\$13.75		\$17.46		\$126.99		\$634.95		\$634.95
ISRS Charge (per bill)		\$0.05		\$0.06		\$0.43		\$2.14		\$2.14
- · · · · ·	\$	0.18370	\$	0.05782	۲.		۲.	0.18255	۲.	0.18255
Distribution Commodity Rate (per CCF)	Ş	0.18370	Ş	0.05782	Ş	0.21124	\$	0.18255	Ş	0.18255
Current Rates (WEMO)	Ī									
Customer Charge (per meter)		\$20.00		\$23.80		\$118.01		\$590.03		\$590.03
ISRS Charge (per bill)		\$0.79		\$0.94		\$4.66		\$23.31		\$0.00
Distribution Commodity Rate (per CCF)	\$	0.19206	\$	0.06954	\$	0.26103	\$	0.17794	\$	0.17794

Residential Rate Design: Proposed Consolidated Rates

Residential Rate Design				
Revenues	Missouri	NEMO	SEMO	WEMC
Target Revenues	21,251,988	7,557,512	12,140,946	1,553,53
Current Revenues (w/ ISRS)	15,919,384	7,169,460	7,496,163	1,253,76
\$ Difference	5,332,604	388,052	4,644,783	299,76
% Difference	33.5%	5.4%	62.0%	23.9
	Total Use			
Annual Usage (CCF)	29,558,131	11,243,129	16,044,302	2,270,69
Number of Bills	557,704	188,750	329,625	39,329
Average Annual Use (CCF)	636	715	584	693
Residential Rate Design	Rate	Units	Revenues	
Proposed Rates				
Customer Charge	\$ 22.50	557,704	\$ 12,548,340	
Consumption Charge	\$ 0.29446	29,558,131	8,703,648	
Revenue at Proposed Rates			\$ 21,251,988	
			, , , , , , , ,	
Current Rates (NEMO)				
Customer Charge	\$20.00	188,750	\$ 3,775,000	
ISRS Charge	\$1.49	188,750	\$ 281,238	
Consumption Charge	0.27690	11,243,129	3,113,222	
Revenue at Current Rates (NEMO)			\$ 7,169,460	
Current Rates (SEMO)				
Customer Charge	\$13.75	329,625	\$ 4,532,344	
ISRS Charge	\$0.05	329,625	\$ 16,481	
Consumption Charge	0.18370	16,044,302	2,947,338	
Revenue at Current Rates (SEMO)			\$ 7,496,163	
Current Rates (WEMO)				
Customer Charge	\$20.00	39,329	\$ 786,580	
ISRS Charge	\$0.79	39,329	\$ 31,070	
Consumption Charge	0.19206	2,270,699	436,110	
Revenue at Current Rates (WEMO)			\$ 1,253,760	
Total Current Revenues			15,919,384	
PGA Rates			-	
NEMO PGA Rates	\$ 0.48002			
SEMO PGA Rates	\$ 0.56610			
WEMO PGA Rates	\$ 0.44724			

Residential Bill Impact Analysis

Bill Impact Ana	lysis - NEMO														
						Annual Bill	(w,	o PGA)				Annual Bil	l (w	/ PGA)	
Annual	Cumulative	Cumulative		Proposed		Current		Difference	Difference	Proposed		Current		Difference	Difference
Use	Bills	Use	1	Annual Bill	1	Annual Bill		(\$)	(%)	Annual Bill	ı	Annual Bill		(\$)	(%)
50	0.9%	0.0%	\$	285	\$	272	\$	13	4.8%	\$ 309	\$	296	\$	13	4.4%
150	3.1%	0.4%	\$	314	\$	299	\$	15	4.9%	\$ 386	\$	371	\$	15	4.0%
250	7.5%	1.9%	\$	344	\$	327	\$	17	5.0%	\$ 464	\$	447	\$	17	3.7%
350	16.3%	6.1%	\$	373	\$	355	\$	18	5.1%	\$ 541	\$	523	\$	18	3.5%
450	29.8%	14.8%	\$	403	\$	382	\$	20	5.2%	\$ 619	\$	598	\$	20	3.3%
600	54.0%	35.2%	\$	447	\$	424	\$	23	5.3%	\$ 735	\$	712	\$	23	3.2%
750	73.5%	56.1%	\$	491	\$	466	\$	25	5.4%	\$ 851	\$	826	\$	25	3.1%
900	85.1%	71.2%	\$	535	\$	507	\$	28	5.5%	\$ 967	\$	939	\$	28	3.0%
1,050	92.1%	82.1%	\$	579	\$	549	\$	31	5.6%	\$ 1,083	\$	1,053	\$	31	2.9%
1,200	95.6%	88.3%	\$	623	\$	590	\$	33	5.6%	\$ 1,199	\$	1,166	\$	33	2.8%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

Bill Impact Ana	lysis - SEMO														
					Annual Bill	(w/	o PGA)					Annual Bill	I (w	/ PGA)	
Annual	Cumulative	Cumulative	Propos	d	Current		Difference	Difference		Proposed		Current		Difference	Difference
Use	Bills	Use	Annual E	ill	Annual Bill		(\$)	(%)	1	Annual Bill	1	Annual Bill		(\$)	(%)
50	2.1%	0.1%	\$ 28	5 \$	175	\$	110	62.9%	\$	313	\$	203	\$	110	54.1%
150	7.2%	1.2%	\$ 31	4 \$	193	\$	121	62.7%	\$	399	\$	278	\$	121	43.5%
250	16.5%	5.1%	\$ 34	4 \$	212	\$	132	62.4%	\$	485	\$	353	\$	132	37.4%
350	31.1%	14.4%	\$ 37	3 \$	230	\$	143	62.3%	\$	571	\$	428	\$	143	33.4%
450	50.1%	30.2%	\$ 40	3 \$	248	\$	154	62.1%	\$	657	\$	503	\$	154	30.7%
600	74.0%	55.9%	\$ 44	7 \$	276	\$	171	61.9%	\$	786	\$	615	\$	171	27.8%
750	87.4%	74.6%	\$ 49	1 \$	303	\$	187	61.8%	\$	915	\$	728	\$	187	25.8%
900	94.0%	85.8%	\$ 53	5 \$	331	\$	204	61.7%	\$	1,045	\$	840	\$	204	24.3%
1,050	97.0%	91.8%	\$ 57	9 \$	358	\$	221	61.6%	\$	1,174	\$	953	\$	221	23.2%
1,200	98.4%	95.0%	\$ 62	3 \$	386	\$	237	61.5%	\$	1,303	\$	1,065	\$	237	22.3%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

Bill Impact An	alysis - WEMO														
						Annual Bill	(w/	o PGA)				Annual Bil	I (w	/ PGA)	
Annual	Cumulative	Cumulative		Proposed		Current		Difference	Difference	Proposed		Current		Difference	Difference
Use	Bills	Use	ı	Annual Bill	1	Annual Bill		(\$)	(%)	Annual Bill	1	Annual Bill		(\$)	(%)
50	0.8%	0.0%	\$	285	\$	259	\$	26	9.9%	\$ 307	\$	281	\$	26	9.1%
150	3.4%	0.6%	\$	314	\$	278	\$	36	12.9%	\$ 381	\$	345	\$	36	10.4%
250	10.1%	3.0%	\$	344	\$	297	\$	46	15.5%	\$ 455	\$	409	\$	46	11.3%
350	20.9%	8.9%	\$	373	\$	317	\$	56	17.8%	\$ 530	\$	473	\$	56	11.9%
450	35.9%	19.6%	\$	403	\$	336	\$	67	19.8%	\$ 604	\$	537	\$	67	12.4%
600	60.4%	42.6%	\$	447	\$	365	\$	82	22.5%	\$ 715	\$	633	\$	82	12.9%
750	79.7%	65.6%	\$	491	\$	394	\$	97	24.7%	\$ 826	\$	729	\$	97	13.4%
900	89.8%	80.3%	\$	535	\$	422	\$	113	26.7%	\$ 938	\$	825	\$	113	13.7%
1,050	95.3%	89.9%	\$	579	\$	451	\$	128	28.4%	\$ 1,049	\$	921	\$	128	13.9%
1,200	98.1%	95.3%	\$	623	\$	480	\$	143	29.9%	\$ 1,160	\$	1,017	\$	143	14.1%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

SGS Rate Design: Proposed Rate Increase

Small General Service Rate Design						
Revenues		Missouri	NEMO	S	ЕМО	WEMC
Target Revenues		3,373,604	1,245,314	1,82	7,926	300,363
Current Revenues (w/ ISRS)		2,143,717	1,004,917	93:	1,653	207,147
\$ Difference		1,229,886	240,397	89	5,273	93,217
% Difference		57.4%	23.9%		96.2%	45.09
		Total Use				
Annual Usage (CCF)		8,022,149	3,270,045	4,02	5,648	726,456
Number of Bills		71,581	25,359	3!	9,891	6,331
Average Annual Use (CCF)		1,345	1,547		1,211	1,377
Small General Service Rate Design		Rate	Units	Revenue	S	
Proposed Rates						
Customer Charge	\$	34.00	71,581	\$ 2,43	3,754	
Consumption Charge	\$	0.11716	8,022,149	93	9,850	
Revenue at Proposed Rates				\$ 3,37	3,604	
nevenue at Floposeu Nates				у 3,37.	5,004	
Current Rates (NEMO)						
Customer Charge	\$	28.26	25,359	\$ 71	5,645	
ISRS Charge	\$	2.10	25,359	\$ 5	3,254	
Consumption Charge		0.07187	3,270,045	23	5,018	
Revenue at Current Rates (NEMO)				\$ 1,00	4,917	
Current Rates (SEMO)						
Customer Charge	\$	17.46	39,891	\$ 69	5,497	
ISRS Charge	\$	0.06	39,891	\$	2,393	
Consumption Charge		0.05782	4,025,648	23:	2,763	
Revenue at Current Rates (SEMO)				\$ 93:	1,653	
Current Rates (WEMO)		22.00		A	2.670	
Customer Charge	\$	23.80	6,331		0,678	
ISRS Charge	\$	0.94	6,331	•	5,951	
Consumption Charge		0.06954	726,456	51	0,518	
Revenue at Current Rates (WEMO)				\$ 20	7,147	
Total Current Revenues				2,14	3,717	
PGA Rates					-	
NEMO PGA Rates	\$	0.48002				
SEMO PGA Rates	\$	0.48002				
WEMO PGA Rates	\$	0.36610				

SGS Rate Design: Bill Impact Analysis

Bill Impact	Analysi	is - NEMO														
							Annual Bill	(w)	/o PGA)				Annual Bil	l (w	ı/ PGA)	
Annu	al C	umulative	Cumulative		Proposed		Current		Difference	Difference	Proposed		Current		Difference	Difference
U	se	Bills	Use	,	Annual Bill	1	Annual Bill		(\$)	(%)	Annual Bill	ı	Annual Bill		(\$)	(%)
10	0	5%	0%	\$	420	\$	372	\$	48	13.0%	\$ 468	\$	420	\$	48	11.5%
22	.5	11%	1%	\$	434	\$	380	\$	54	14.2%	\$ 542	\$	488	\$	54	11.0%
35	0	18%	2%	\$	449	\$	389	\$	60	15.3%	\$ 617	\$	557	\$	60	10.7%
47	5	27%	5%	\$	464	\$	398	\$	65	16.4%	\$ 692	\$	626	\$	65	10.4%
60	0	35%	8%	\$	478	\$	407	\$	71	17.4%	\$ 766	\$	695	\$	71	10.2%
90	0	53%	18%	\$	513	\$	429	\$	84	19.7%	\$ 945	\$	861	\$	84	9.8%
1,20	0	65%	27%	\$	549	\$	451	\$	98	21.8%	\$ 1,125	\$	1,027	\$	98	9.5%
1,50	0	72%	34%	\$	584	\$	472	\$	112	23.6%	\$ 1,304	\$	1,192	\$	112	9.4%
2,25	0	84%	50%	\$	672	\$	526	\$	146	27.7%	\$ 1,752	\$	1,606	\$	146	9.1%
3,50	0	92%	67%	\$	818	\$	616	\$	202	32.8%	\$ 2,498	\$	2,296	\$	202	8.8%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

Bill Impact An	alysis - SEMO												
				Annual Bill (w/o PGA) Annual Bill (w/ PGA)									
Annual	Cumulative	Cumulative	Proposed	Current		Difference	Difference		Proposed		Current	Difference	Difference
Use	Bills	Use	Annual Bill	Annual Bill		(\$)	(%)		Annual Bill	1	Annual Bill	(\$)	(%)
100	8%	0%	\$ 420	\$ 216	\$	204	94.3%	\$	476	\$	273	\$ 204	74.7%
225	19%	2%	\$ 434	\$ 223	\$	211	94.6%	\$	562	\$	351	\$ 211	60.2%
350	31%	6%	\$ 449	\$ 230	\$	219	94.8%	\$	647	\$	429	\$ 219	51.0%
475	42%	10%	\$ 464	\$ 238	\$	226	95.1%	\$	733	\$	507	\$ 226	44.6%
600	51%	15%	\$ 478	\$ 245	\$	233	95.3%	\$	818	\$	585	\$ 233	39.9%
900	66%	27%	\$ 513	\$ 262	\$	251	95.8%	\$	1,023	\$	772	\$ 251	32.5%
1,200	76%	37%	\$ 549	\$ 280	\$	269	96.2%	\$	1,228	\$	959	\$ 269	28.0%
1,500	82%	45%	\$ 584	\$ 297	\$	287	96.6%	\$	1,433	\$	1,146	\$ 287	25.0%
2,250	91%	61%	\$ 672	\$ 340	\$	331	97.3%	\$	1,945	\$	1,614	\$ 331	20.5%
3,500	95%	74%	\$ 818	\$ 413	\$	405	98.3%	\$	2,799	\$	2,394	\$ 405	16.9%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

Impact Ana	ilysis - WEMO					_						_		
					Annual Bill	(w,	/o PGA)				Annual Bil	l (w	r/ PGA)	
Annual	Cumulative	Cumulative	Proposed		Current		Difference	Difference	Proposed		Current		Difference	Difference
Use	Bills	Use	Annual Bill	1	Annual Bill		(\$)	(%)	Annual Bill	1	Annual Bill		(\$)	(%)
100	5%	0%	\$ 420	\$	304	\$	116	38.1%	\$ 464	\$	349	\$	116	33.2%
225	14%	1%	\$ 434	\$	313	\$	122	39.0%	\$ 535	\$	413	\$	122	29.5%
350	26%	5%	\$ 449	\$	321	\$	128	39.8%	\$ 606	\$	478	\$	128	26.7%
475	38%	9%	\$ 464	\$	330	\$	134	40.5%	\$ 676	\$	542	\$	134	24.7%
600	46%	12%	\$ 478	\$	339	\$	140	41.3%	\$ 747	\$	607	\$	140	23.0%
900	62%	23%	\$ 513	\$	359	\$	154	42.8%	\$ 916	\$	762	\$	154	20.2%
1,200	72%	31%	\$ 549	\$	380	\$	168	44.2%	\$ 1,085	\$	917	\$	168	18.3%
1,500	79%	39%	\$ 584	\$	401	\$	183	45.5%	\$ 1,255	\$	1,072	\$	183	17.0%
2,250	86%	52%	\$ 672	\$	453	\$	218	48.1%	\$ 1,678	\$	1,460	\$	218	15.0%
3,500	94%	69%	\$ 818	\$	540	\$	278	51.4%	\$ 2,383	\$	2,106	\$	278	13.2%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

MGS Rate Design: Proposed Rate Increase

Medium General Service Rate Design					
Revenues	Missouri	NEMO		SEMO	WEMO
Target Revenues	4,337,185	1,799,026		2,341,734	196,42
Current Revenues (w/ ISRS)	3,650,985	1,563,444		1,907,388	180,15
\$ Difference	686,200	235,582		434,346	16,27
% Difference	18.8%	15.1%		22.8%	9.0
	Total Use				
Annual Usage (CCF)	10,141,947	4,440,882		5,206,401	494,66
Number of Bills	10,743	3,989		6,338	410
Average Annual Use (CCF)	11,329	13,359		9,857	14,269
Medium General Service Rate Design	Rate	Units		Revenues	
Proposed Rates					
Customer Charge	\$ 140.00	10,743	\$	1,504,020	
Consumption Charge	\$ 0.27935	10,141,947		2,833,165	
Revenue at Proposed Rates			\$	4,337,185	
nerenae ac reposea nates			Ψ	1,007,120	
Current Rates (NEMO)					
Customer Charge	\$ 124.60	3,989	\$	497,029	
ISRS Charge	\$ 9.28	3,989	\$	37,018	
Consumption Charge	0.23180	4,440,882		1,029,396	
Revenue at Current Rates (NEMO)			\$	1,563,444	
Current Rates (SEMO)					
Customer Charge	\$ 126.99	6,338	\$	804,863	
ISRS Charge	\$ 0.43	6,338	\$	2,725	
Consumption Charge	0.21124	5,206,401		1,099,800	
Revenue at Current Rates (SEMO)			\$	1,907,388	
Current Rates (WEMO)	 110.01	44.5	۲.	40.003	
Customer Charge	\$ 118.01	416		49,092	
ISRS Charge	\$ 4.66	416	\$	1,939	
Consumption Charge	0.26103	494,665		129,122	
Revenue at Current Rates (WEMO)			\$	180,153	
Total Current Revenues				3,650,985	
PGA Rates				-	
NEMO PGA Rates	\$ 0.48002				
SEMO PGA Rates	\$ 0.56610				
WEMO PGA Rates	\$ 0.44724				

MGS Rate Design: Bill Impact Analysis

Bill Impact Ana	alysis - NEMO														
					1	Annual Bill	(w)	/o PGA)				Annual Bil	l (w	r/ PGA)	
Annual	Cumulative	Cumulative		Proposed		Current		Difference	Difference	Proposed		Current		Difference	Difference
Use	Bills	Use	1	Annual Bill	I	Annual Bill		(\$)	(%)	Annual Bill	ı	Annual Bill		(\$)	(%)
															· ·
2,000	10%	1%	\$	2,239	\$	2,070	\$	169	8.1%	\$ 3,199	\$	3,030	\$	169	5.6%
2,750	19%	3%	\$	2,448	\$	2,244	\$	204	9.1%	\$ 3,768	\$	3,564	\$	204	5.7%
3,500	24%	4%	\$	2,658	\$	2,418	\$	240	9.9%	\$ 4,338	\$	4,098	\$	240	5.9%
4,250	28%	5%	\$	2,867	\$	2,592	\$	276	10.6%	\$ 4,907	\$	4,632	\$	276	5.9%
5,000	32%	7%	\$	3,077	\$	2,766	\$	311	11.3%	\$ 5,477	\$	5,166	\$	311	6.0%
10,000	61%	25%	\$	4,474	\$	3,925	\$	549	14.0%	\$ 9,274	\$	8,725	\$	549	6.3%
15,000	76%	41%	\$	5,870	\$	5,084	\$	787	15.5%	\$ 13,071	\$	12,284	\$	787	6.4%
20,000	83%	51%	\$	7,267	\$	6,243	\$	1,024	16.4%	\$ 16,867	\$	15,843	\$	1,024	6.5%
25,000	88%	60%	\$	8,664	\$	7,402	\$	1,262	17.1%	\$ 20,664	\$	19,402	\$	1,262	6.5%
30,000	92%	69%	\$	10,061	\$	8,561	\$	1,500	17.5%	\$ 24,461	\$	22,961	\$	1,500	6.5%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

Bill Impact Ana	llysis - SEMO													
					Annual Bill	(w/	o PGA)				Annual Bill	l (w	/ PGA)	
Annual	Cumulative	Cumulative	Propos	ed	Current		Difference	Difference	Proposed		Current		Difference	Difference
Use	Bills	Use	Annual	Bill	Annual Bill		(\$)	(%)	Annual Bill	I	Annual Bill		(\$)	(%)
2,000	14%	2%	\$ 2,2	39 \$	1,952	\$	287	14.7%	\$ 3,371	\$	3,084	\$	287	9.3%
2,750	24%	5%	\$ 2,4	18 \$	2,110	\$	338	16.0%	\$ 4,005	\$	3,667	\$	338	9.2%
3,500	34%	9%	\$ 2,6	58 \$	2,268	\$	389	17.2%	\$ 4,639	\$	4,250	\$	389	9.2%
4,250	44%	14%	\$ 2,8	57 \$	2,427	\$	440	18.1%	\$ 5,273	\$	4,833	\$	440	9.1%
5,000	52%	18%	\$ 3,0	77 \$	2,585	\$	492	19.0%	\$ 5,907	\$	5,416	\$	492	9.1%
10,000	75%	38%	\$ 4,4	74 \$	3,641	\$	832	22.9%	\$ 10,135	\$	9,302	\$	832	8.9%
15,000	86%	56%	\$ 5,8	70 \$	4,698	\$	1,173	25.0%	\$ 14,362	\$	13,189	\$	1,173	8.9%
20,000	91%	67%	\$ 7,2	57 \$	5,754	\$	1,513	26.3%	\$ 18,589	\$	17,076	\$	1,513	8.9%
25,000	95%	79%	\$ 8,6	54 \$	6,810	\$	1,854	27.2%	\$ 22,816	\$	20,963	\$	1,854	8.8%
30,000	97%	84%	\$ 10,0	51 \$	7,866	\$	2,194	27.9%	\$ 27,044	\$	24,849	\$	2,194	8.8%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

Bill Impact Ana	llysis - WEMO														
					1	Annual Bill	(w/	o PGA)				Annual Bill	l (w	/ PGA)	
Annual	Cumulative	Cumulative		Proposed		Current		Difference	Difference	Proposed		Current		Difference	Difference
Use	Bills	Use	ļ	Annual Bill	I	Annual Bill		(\$)	(%)	Annual Bill	1	Annual Bill		(\$)	(%)
2,000	0%	0%	\$	2,239	\$	1,994	\$	245	12.3%	\$ 3,133	\$	2,889	\$	245	8.5%
2,750	3%	1%	\$	2,448	\$	2,190	\$	258	11.8%	\$ 3,678	\$	3,420	\$	258	7.6%
3,500	19%	5%	\$	2,658	\$	2,386	\$	272	11.4%	\$ 4,223	\$	3,951	\$	272	6.9%
4,250	22%	6%	\$	2,867	\$	2,581	\$	286	11.1%	\$ 4,768	\$	4,482	\$	286	6.4%
5,000	31%	10%	\$	3,077	\$	2,777	\$	300	10.8%	\$ 5,313	\$	5,013	\$	300	6.0%
10,000	63%	31%	\$	4,474	\$	4,082	\$	391	9.6%	\$ 8,946	\$	8,555	\$	391	4.6%
15,000	78%	49%	\$	5,870	\$	5,387	\$	483	9.0%	\$ 12,579	\$	12,096	\$	483	4.0%
20,000	84%	60%	\$	7,267	\$	6,693	\$	574	8.6%	\$ 16,212	\$	15,637	\$	574	3.7%
25,000	91%	74%	\$	8,664	\$	7,998	\$	666	8.3%	\$ 19,845	\$	19,179	\$	666	3.5%
30,000	94%	82%	\$	10,061	\$	9,303	\$	758	8.1%	\$ 23,478	\$	22,720	\$	758	3.3%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

Large General Service Rate Design					
Revenues		Missouri	NEMO	SEMO	WEMO
Herendes		Missouri	HEMIO	SEMO	WEIN
Target Revenues		3,431,243	936,379	2,242,817	252,04
Current Revenues (w/ ISRS)		3,267,850	786,527	2,236,898	244,42
\$ Difference		163,393	149,852	5,919	7,62
% Difference		5.0%	19.1%	0.3%	3.1
		Total Use			
Annual Usage (CCF)		16,505,651	4,328,322	10,955,357	1,221,97
Number of Bills		630	214	372	4
Average Annual Use (CCF)		314,393	242,710	353,399	333,26
Large General Service Rate Design		Rate	Units	Revenues	
Proposed Rates					
Customer Charge	\$	750.00	630	\$ 472,500	
Consumption Charge	\$	0.17926	16,505,651	2,958,743	
Consumption Charge	٠	0.17920	10,303,031	2,938,743	
Revenue at Proposed Rates				\$ 3,431,243	
Current Rates (NEMO)					
Customer Charge	\$	623.01	214	\$ 133,324	
ISRS Charge	\$	46.38	214	\$ 9,925	
Consumption Charge		0.14583	4,328,322	631,199	
Revenue at Current Rates (NEMO)				\$ 774,449	
Current Rates (SEMO)					
Customer Charge	\$	634.95	372	\$ 236,201	
ISRS Charge	\$	2.14	372	\$ 796	
Consumption Charge		0.18255	10,955,357	1,999,900	
Revenue at Current Rates (SEMO)				\$ 2,236,898	
Coursest Potos (MICRAO)					
Current Rates (WEMO)	\$	590.03	44	\$ 25,961	
Customer Charge					
ISRS Charge Consumption Charge	\$	23.31 0.17794	1 221 072	217,438	
Consumption Charge		0.17794	1,221,973	217,436	
Revenue at Current Rates (WEMO)				\$ 244,425	
Total Current Revenues				3,255,771	
				(12,079)	
PGA Rates					
NEMO PGA Rates	\$	0.48002			
SEMO PGA Rates	\$	0.56610			
WEMO PGA Rates	\$	0.44724			

LGS Rate Design: Bill Impact Analysis

Liberty Utilities (Midstates Natural Gas) Corp. Case No. GR-2018-0013 Schedule TSL-12 Page 9 of 12

Bill Impact Ana	ılysis - NEMO															
						Annual Bill	(w)	o PGA)					Annual Bil	l (v	r/ PGA)	
Annual	Cumulative	Cumulative		Proposed		Current		Difference	Difference		Proposed		Current		Difference	Difference
Use	Bills	Use	1	Annual Bill	1	Annual Bill		(\$)	(%)	- 4	Annual Bill	-	Annual Bill		(\$)	(%)
75,000	0.0%	0.0%	\$	22,444	\$	18,970	\$	3,474	18.3%	\$	58,446	\$	54,971	\$	3,474	6.3%
100,000	27.3%	7.0%	\$	26,926	\$	22,616	\$	4,310	19.1%	\$	74,928	\$	70,618	\$	4,310	6.1%
150,000	63.6%	20.2%	\$	35,888	\$	29,907	\$	5,981	20.0%	\$	107,891	\$	101,910	\$	5,981	5.9%
250,000	63.6%	20.2%	\$	53,814	\$	44,490	\$	9,324	21.0%	\$	173,819	\$	164,495	\$	9,324	5.7%
400,000	72.7%	29.5%	\$	80,703	\$	66,365	\$	14,338	21.6%	\$	272,711	\$	258,373	\$	14,338	5.5%
750,000	81.8%	47.0%	\$	143,442	\$	117,405	\$	26,037	22.2%	\$	503,457	\$	477,420	\$	26,037	5.5%
2,250,000	100.0%	100.0%	\$	412,327	\$	336,150	\$	76,177	22.7%	\$	1,492,372	\$	1,416,195	\$	76,177	5.4%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

Bill Impact Ana	alysis - SEMO														
					Annual Bill	(w,	o PGA)					Annual Bil	l (v	v/ PGA)	
Annual	Cumulative	Cumulative		Proposed	Current		Difference	Difference		Proposed		Current		Difference	Difference
Use	Bills	Use	ļ	Annual Bill	Annual Bill		(\$)	(%)	Į	Annual Bill	ı	Annual Bill		(\$)	(%)
75,000	5.0%	0.8%	\$	22,444	\$ 21,336	\$	1,108	5.2%	\$	64,902	\$	63,794	\$	1,108	1.7%
100,000	30.0%	6.9%	\$	26,926	\$ 25,900	\$	1,026	4.0%	\$	83,536	\$	82,510	\$	1,026	1.2%
150,000	40.0%	10.6%	\$	35,888	\$ 35,028	\$	861	2.5%	\$	120,803	\$	119,943	\$	861	0.7%
250,000	55.0%	19.1%	\$	53,814	\$ 53,283	\$	532	1.0%	\$	195,339	\$	194,808	\$	532	0.3%
400,000	75.0%	35.7%	\$	80,703	\$ 80,665	\$	37	0.0%	\$	307,143	\$	307,105	\$	37	0.0%
750,000	90.0%	61.1%	\$	143,442	\$ 144,558	\$	(1,115)	-0.8%	\$	568,017	\$	569,133	\$	(1,115)	-0.2%
2,250,000	100.0%	100.0%	\$	412,327	\$ 418,383	\$	(6,056)	-1.4%	\$	1,686,052	\$	1,692,108	\$	(6,056)	-0.4%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

Bill Impact Ana	llysis - WEMO														
						Annual Bill	(w/	o PGA)				Annual Bil	l (w	ı/ PGA)	
Annual	Cumulative	Cumulative	Prop	osed		Current		Difference	Difference	Proposed		Current		Difference	Difference
Use	Bills	Use	Annu	al Bill	1	Annual Bill		(\$)	(%)	Annual Bill	1	Annual Bill		(\$)	(%)
75,000	21.2%	2.4%	\$ 22	,444	\$	20,706	\$	1,739	8.4%	\$ 55,987	\$	54,249	\$	1,739	3.2%
250,000	46.2%	6.2%	\$ 53	,814	\$	51,845	\$	1,969	3.8%	\$ 165,624	\$	163,655	\$	1,969	1.2%
750,000	46.2%	6.2%	\$ 143	,442	\$	140,815	\$	2,627	1.9%	\$ 478,872	\$	476,245	\$	2,627	0.6%
2,250,000	100.0%	100.0%	\$ 412	,327	\$	407,725	\$	4,602	1.1%	\$ 1,418,617	\$	1,414,015	\$	4,602	0.3%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

Interruptible Rate Design: Proposed Rates

Interruptible Service Rate Design				
Revenues		Missouri	NEMO	SEMO
				020
Target Revenues		352,536	217,402	135,134
Current Revenues (w/ ISRS)		296,760	169,858	126,902
\$ Difference		55,776	47,543	8,233
% Difference		18.8%	28.0%	6.5%
		Tabalillas		
Annual Usage (CCF)		Total Use 1,606,679	1,054,605	552,074
Number of Bills		65	1,034,603	332,074
Average Annual Use (CCF)		296,618	527,303	161,583
		,	•	,
Interruptible Service Rate Design		Rate	Units	Revenues
Proposed Rates				
Customer Charge	\$	750.00	65	\$ 48,750
Consumption Charge	\$	0.18908	1,606,679	303,786
	, T	212333	_,000,075	233,700
Revenue at Proposed Rates				\$ 352,536
Current Rates (NEMO)				
Customer Charge	\$	623.01	24	\$ 14,952
ISRS Charge	\$	46.38	24	\$ 1,113
Consumption Charge		0.14583	1,054,605	153,793
Revenue at Current Rates (NEMO)				\$ 169,858
Revenue at Current Rates (NEWO)				3 105,858
Current Rates (SEMO)				
Customer Charge	\$	634.95	41	\$ 26,033
ISRS Charge	\$	2.14	41	\$ 88
Consumption Charge		0.18255	552,074	100,781
Postonuo et Current Peter (CENAC)				ć 426.000
Revenue at Current Rates (SEMO)				\$ 126,902
Total Current Povenues				296,760
Total Current Revenues				296,760
PGA Rates				
NEMO PGA Rates	\$	0.36576		
SEMO PGA Rates	\$	0.45542		
WEMO PGA Rates	\$	-		

Interruptible Rate Design: Bill Impact Analysis

Bill Impact	Analysis - NEMO													
					Annual Bill	(w)	/o PGA)				Annual Bil	I (w	/ PGA)	
Annu	al Cumulative	Cumulative	Propose	d	Current		Difference	Difference	Proposed		Current		Difference	Difference
U	e Bills	Use	Annual Bi		Annual Bill		(\$)	(%)	Annual Bill	ļ	Annual Bill		(\$)	(%)
350,00	50.0%	34.2%	\$ 75,177	' \$	59,073	\$	16,104	27.3%	\$ 203,193	\$	187,089	\$	16,104	8.6%
650,00	100.0%	100.0%	\$ 131,900	\$	102,822	\$	29,078	28.3%	\$ 369,644	\$	340,566	\$	29,078	8.5%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

Bill Impact Ana	llysis - SEMO														
						Annual Bill	(w/	o PGA)				Annual Bil	I (w	v/ PGA)	
Annual	Cumulative	Cumulative		Proposed		Current		Difference	Difference	Proposed		Current		Difference	Difference
Use	Bills	Use	P	Annual Bill	1	Annual Bill		(\$)	(%)	Annual Bill	1	Annual Bill		(\$)	(%)
25,000	14.0%	1.8%	\$	13,727	\$	12,209	\$	1,518	12.4%	\$ 25,112	\$	23,594	\$	1,518	6.4%
100,000	44.2%	6.4%	\$	27,908	\$	25,900	\$	2,008	7.8%	\$ 73,450	\$	71,442	\$	2,008	2.8%
350,000	100.0%	100.0%	\$	75,177	\$	71,538	\$	3,639	5.1%	\$ 234,574	\$	230,935	\$	3,639	1.6%
650,000	100.0%	100.0%	\$	131,900	\$	126,303	\$	5,597	4.4%	\$ 427,923	\$	422,326	\$	5,597	1.3%

Note: Current Annual Bill includes Infrastructure System Replacement Surcharge (ISRS)

Workpapers

Customer Costs

Liberty Utilities (Midstates Natural G	as) Al			Small	Medium	Large	
Summary of Costs		Total	Residential	General Srv	General Srv	General Srv	Interruptible
		Company	RS	SGS	MGS	LGS	IN
Customer Charges							
Proposed			\$ 22.50	\$ 34.00	\$ 140.00	\$ 750.00	\$ 750.00
Current (NEMO)			\$ 20.00	\$ 28.26	\$ 124.60	\$ 623.01	\$ 623.01
Current (SEMO)			\$ 13.75	\$ 17.46	\$ 126.99	\$ 634.95	\$ 634.95
Current (WEMO)			\$ 20.00	\$ 23.80	\$ 118.01	\$ 590.03	\$ 590.03
Billing Determinants							
Customers		53,394	46,475	5,965	895	53	5
Usage (CCF)		65,834,557	29,558,131	8,022,149	10,141,947	16,505,651	1,606,679
Revenue Requirement	\$	32,746,555	\$ 21,251,988	\$ 3,373,604	\$ 4,337,185	\$ 3,431,243	\$ 352,536
Customer Costs							
Basic customer costs	\$	13,480,650	\$ 9,294,209	\$ 1,631,917	\$ 1,638,469	\$ 805,786	\$ 110,269
\$ per customer	\$	21.04	\$ 16.67	\$ 22.80	\$ 152.52	\$ 1,279.02	\$ 1,696.45
Fully-loaded customer costs	\$	30,641,971	\$ 18,430,835	\$ 2,987,259	\$ 2,905,708	\$ 1,414,556	\$ 186,455
\$ per customer	\$	47.82	\$ 33.05	\$ 41.73	\$ 270.47	\$ 2,245.33	\$ 2,868.53
Demand Costs							
Demand costs	\$	8,451,081	\$ 3,517,193	\$ 952,147	\$ 1,021,125	\$ 1,241,931	\$ 137,269
\$ per customer	\$	13.19	\$ 6.31	\$ 13.30	\$ 95.05	\$ 1,971.32	\$ 2,111.82
Customer & Demand Costs							
Customer & demand costs	\$	32,794,478	\$ 21,948,028	\$ 3,939,406	\$ 3,926,834	\$ 2,656,488	\$ 323,723
\$ per customer	\$	51.18	\$ 39.35	\$ 55.03	\$ 365.52	\$ 4,216.65	\$ 4,980.36
Revenue Requirement							
Revenue Requirement	\$	32,746,555	\$ 20,555,071	\$ 2,761,756	\$ 4,726,943	\$ 4,325,117	\$ 377,668
\$ per customer	\$	51.11	\$ 36.86	\$ 38.58	\$ 440.00	\$ 6,865.27	\$ 5,810.27
\$ per CCF	\$	4.97	\$ 6.95	\$ 3.44	\$ 4.66	\$ 2.62	\$ 2.35

Original Sheet No. 67

Cancelling P.S.C. MO. No

Liberty Utilities (Midstates Natural Gas) Corp. d/b/a/ Liberty Utilities

FOR - All Areas

Name of Issuing Corporation

Community, Town or City

VOLUME BALANCING ADJUSTMENT - RIDER VBA

1. Applicability and Purpose

- 1.1. Applicability. The Volume Balancing Adjustment Rider ("Rider VBA") is applicable to Liberty Utilities (Midstates Natural Gas) Corp's d/b/a Liberty Utilities ("Liberty" or the "Company") customers who take service under the Residential and Small General Service rate classes. A separate adjustment shall be calculated for each rate class, expressed in cents per CCF.
- 1.2. Purpose. The purpose Rider VBA is to stabilize the recovery of the revenue requirement approved by the Missouri Public Service Commission (the "Commission") in the Company's most recent rate case proceeding.
- 1.3. Calculation and Application. The Company shall determine annual adjustments under this Rider VBA. The adjustments, as determined according to the provisions of Section 3 of this Rider VBA, shall be filed with the Commission no later than April 30 of each year, and shall be in effect for the nine-month period commencing with the June billing period.

2. Definitions

As used in this Rider VBA, the following terms shall have the meanings ascribed below:

- (a) "Actual Revenue" means the dollar amount of Distribution Commodity Rate revenues arising from revenue requirements approved by the Commission that were billed for the applicable period, excluding revenues arising from adjustments under this Rider VBA.
- (b) "Effective Period" means the period for which the adjustments in Section 3 of this Rider VBA are to be billed to Customers, and shall be the consecutive ninemonth period after the calendar month in which the Company submits an information statement to the Commission as required under this Rider VBA.

DATE OF ISSUE:				DATE EFFECTIVE:			
	Month	day	year		month	day	year

ISSUED BY: Christopher D Krygier name of officer Director, Regulatory & Govt. Affairs title Joplin, MO address

Cancelling P.S.C. MO. No.

Liberty Utilities (Midstates Natural Gas) Corp. d/b/a/ Liberty Utilities

FOR - All Areas

Name of Issuing Corporation

Community, Town or City

VOLUME BALANCING ADJUSTMENT - RIDER VBA

- (c) "Factor T" means the number of CCF of gas forecast to be delivered to Customers by the Company, including the number of CCF of Customer-owned gas delivered by the Company, for the applicable period.
- (d) "Previous Amortization Period' means the nine-month reconciliation amortization period that ended as of the most recent calendar year.
- (e) "Rate Case Revenue" means the dollar amount of Distribution Commodity Rate revenues arising from the revenue requirements approved by the Commission in the Company's most recent rate case proceeding for the applicable Service Classification.
- (f) "Upcoming Amortization Period' means the nine-month reconciliation amortization period commencing with April of the following calendar year.

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3. Determination of Adjustment

There shall be separate per therm adjustments determined annually for each applicable Service Classification and such adjustments shall be determined as follows:

$$\left(\frac{(RCR - AR)}{T} + \frac{(RA + O)}{T} \times (1 + i)\right) \times 100$$

where:

ı

RCR = Rate Case Revenue for the calendar year

AR = Actual Revenue for the calendar year

T = Factor T for the Effective Period

Ordered adjustment in dollars that is to be refunded to or collected from Customers as a result of the reconciliation established in Section 4 of this Rider VBA.

RA = The dollar amount due the Company (+RA) or Customers (-RA) arising from adjustments under this Rider VBA that were under-billed or over-billed in the calendar year.

= The interest rate consistent with that used in the Company's Purchase Gas Adjustment ("PGA") tariff and in effect when each adjustment under this Section 3 is calculated, adjusted for the number of months in the Effective Period.

The adjustment components above shall be summed together for billing purposes. If neither component of the adjustments computes to $0.01 \c c$ per therm or more, any fraction of $0.01 \c c$ in the computed therm adjustment amount shall be dropped if less than $0.005 \c c$ or, if $0.005 \c c$ or more, shall be rounded up the next full $0.01 \c c$.

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d/b/a/ Liberty Ut	ilities			

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4. Reports and Reconciliation

- 4.1. Filing of Information Sheet and Corrections. The Company shall file with the Commission on or before April 30 of each year, an information sheet that specifies the annual adjustments to be effective under this Rider VBA. In the event the Company believes corrections should be made to an information sheet filed by it, it will submit such corrections on or before the Effective Period.
- 4.2. Petition for Reconciliation and Reports Required. The Company will include with its filing of the annual information sheet (a) a report that shows a determination of the RA to be applicable for the Upcoming Amortization Period and (b) a report that provides the Company's rate of return with and without the effect of this Rider VBA. At the same time the information sheet is filed, the Company shall also file a petition with the Commission seeking initiation of an annual reconciliation to determine the accuracy of the information statement. The reconciling amount from such proceeding ("Factor 0") shall be recovered in the manner determined by the Commission in the annual reconciliation proceeding.

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VOLUME BALANCING ADJUSTMENT - RIDER VBA

5. Audit

- 5.1. Annual Audit. The Company shall annually conduct an internal audit of the distribution revenue requirements recovered or refunded pursuant to this Rider VBA. The internal audit shall test the following:
 - (a) Whether the actual amount of revenues that exceed or fall short of any Rate Case Revenue collected through the base rate distribution charges are correctly reflected in the Company's calculations on the information sheet and report.
 - (b) Whether the revenues to be collected under this Rider VBA are collected through other approved tariffs.
 - (c) Whether adjustments under this Rider VBA are being properly billed to Customers.
 - (d) Whether revenues under this Rider VBA are recorded in the appropriate accounts.

The above list of determinations does not limit the scope of the audit.

5.2. Filing of Report. The Company will provide a copy of the report regarding this audit to the Commission by May 31 of each year. The internal audit report shall include a statement verified by an officer of the Company attesting that it is a true and complete copy of such report.

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ISSUED BY: <u>Christopher D Krygier</u> <u>Director, Regulatory & Govt. Affairs</u> <u>Jordanne of officer</u> title

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VOLUME BALANCING ADJUSTMEN	T - RIDER VBA
6. Compliance	
The Company shall submit as a public document, in any Rate Case Revenue for each applicable Service Classif approved revenue requirement in the rate case.	•
7. Other Terms and Conditions	
This Rider VBA is subject to the service regulations and Company's tariff as well as any other applicable rates, ri or charges that may be approved by the Commission or and in effect.	iders, taxes, adjustments, fees

DATE OF ISSUE: _____ DATE EFFECTIVE: ____ month day year

ISSUED BY: Christopher D Krygier name of officer Director, Regulatory & Govt. Affairs address Director, Regulatory & Govt. Affairs address

AFFIDAVIT OF TIMOTHY S. LYONS

COMMONWEALTH OF MASSACHUSETTS)
COUNTY OF WORCESTER) ss)
On the <u>28</u> day of September, 2017, me personally known, who, being by me firs ScottMadden, Inc and acknowledges that document and believes that the statements this information, knowledge and belief.	he has read the above and foregoing
	Twomy & byong
	Timothy S. Lyons
Subscribed and sworn to before me this	_28_ day of September, 2017.
	Notary Public
My commission expires: March 11,	2022 A COMM. Exc. Of the Community of t