BEFORE THE STATE OF NEW HAMPSHIRE

PUBLIC UTILITIES COMMISSION

In the matter of:	**)**
DE 16-383	**)**
Liberty Granite State Electric Corp	**)**
2016 Rate Case	**)**

Direct Prefiled Testimony

Of

James Brennan
Finance Director

On behalf of
The New Hampshire Office of the Consumer Advocate

Dated: **December 16, 2016**

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SECTION I. Introduction

Q. Please state your name, business address and current position.

A. My name is Jim Brennan. I am the Finance Director at the New Hampshire Office of the Consumer Advocate (OCA). My business address is 21 South Fruit Street, Suite 18, Concord, New Hampshire.

Q. Please describe your education and professional experience.

A. I earned a Bachelor degree from Saint Bonaventure University and an MBA in Finance Syracuse University in 1980. I completed a nine month JP Morgan Chase (formerly Chemical Bank) MBA Management Training Program. I have completed additional courses in business, finance, software development, electric utility regulation, regulatory finance and accounting, and Smart Grid.

In my present position at the OCA I perform economic and financial analysis of utility filings across all industries, draft discovery and testimony, and provide guidance on financial policy and regulatory issues.

My business career began in banking as First Vice President at Chemical Bank, 1980-1989, with responsibilities as analyst, credit department manager, account relationships, and course designer and instructor of Risk Assessment training. I have experience managing business and technology operations. At TD Waterhouse Securities,

1995-2001, I ran the third largest brokerage statement operation on Wall Street during a period of 400% growth with responsibilities for budget, operations, Information Technology data processing and New York Stock Exchange Compliance. Waterhouse's statement was awarded #1 ranking by Smart Money during my assignment. I have experience in IT project management and software design. Experience includes: implementation of paperless technology in Waterhouse Security National Investor Clearing Corporation stock clearing operation (2000); managing launch of an eServices web site providing on-line secure access of brokerage statements to 2.5 million Waterhouse clients (2001); designing Microsoft.NET and SQL Server based software systems for Mathematica Policy Research 2003-2006; directing design testing and launch of cloud based Microsoft Customer Relationship Management (CRM) applications for Southern New Hampshire University (2012-2013). I have designed and taught courses in Corporate Finance, Microsoft applications and Microsoft C# programming language.

Q. Have you previously provided testimony before the New Hampshire Public Utility Commission?

A. Yes.

Q. In which dockets did you testify?

A. I provided testimony before the Commission in the following dockets:

- DE 10-055 Unitil, Inc., rate case testimony assessing the company's smart grid investments ;
- DE 13-177 Public Service Company of New Hampshire (PSNH), testimony regarding Least Cost Integrated Resource Planning;
- DE 14-120 Public Service Company of New Hampshire (PSNH), testimony on reconciliation of the company's energy service costs;
- Pennichuck Water Works, Inc., this case dealt with the company's revenue deficiency.
- DG 15-090 Northern Utilities, Inc., testimony on design of interstate pipeline refund in cost of gas rates;
- DE 11-250 Public Service Company of New Hampshire (PSNH), testimony (adopted) on investigation of Merrimack Station scrubber project cost recovery;
- DE 14-238 Public Service Company of New Hampshire (PSNH), testimony on divestiture of PSNH generation assets;
- DE 15-137 Energy Efficiency Resource Standard, testimony on utilities empowering residential customer through modern electronic data platforms;
- DE 16-384 Unitil Energy Systems Inc., testimony on company pilot to design a utility energy data sharing platform;

Q. Have you provided public comments to the Commission?

A. Yes, I provided public comments on following docket:

- IR 15-296 Grid Modernization, comment on definition and elements of grid modernization;

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to review the filing and determine how the company is performing in the 2015 test year and the prior three years, and to make a recommendation based on that analysis. My

analysis is based on peer benchmark performance comparisons with Liberty.

Q. Why is it beneficial to review Liberty's performance relative to other peer utilities?

A. Beyond the traditional cost of service revenue requirement analysis that will be filed by PUC Staff, it is critical at this point in time to step back and assess the Company's success in eliminating the problems that contributed to major performance issues that occurred during the three-year transition period which ended in 2014. It is a significant fact that test year 2015 represents the Company's first full year of independence from National Grid support. My testimony compares Liberty to peers defined by the Company (Unitil) and by the OCA (my three peer group definitions are included in Section IV Peer Analysis Methodology of my testimony). As I will discuss in my testimony, there exist significant differences between Liberty and its peers. I analyze Liberty's Operations and Maintenance (O&M) Costs, Distribution Plant growth, and reliability and I compares Liberty's performance to peer benchmarks using FERC Form 1 data except where specifically stated in my analysis. By design my peer analysis is performed at a less granular level than a traditional account by account cost of service analysis. As a result I believe my analysis succeeds in

establishing the "bigger picture" as to how Liberty is performing relative to its peers.

Q. Please provide an overview of your testimony.

Three driving factors have influenced my testimony – Liberty's difficult transition to its new owner, Liberty's emergence from National Grid support in 2015, and Liberty's proposal for a multiyear capital step adjustment. I discuss these driving forced later in my testimony and explain how they influenced my approach. Based on my review of the Liberty's FERC operating statement and balance sheet (FERC Form 1 statement), I have identified O&M costs, and Distribution Plant Assets as the two areas I will analyze in detail. These two sets of accounts have increased 21% and 51% respectively since the acquisition and are discussed in Section III FERC Account Peer Comparisons.

After selecting O&M costs and plant growth as my focus, I analyzed these accounts using an alternative approach which I discuss in Section I (Introduction). The approach analyzes Liberty's O&M costs and Distribution Plant growth (discussed in Section III) by comparing their O&M Costs and Distribution Plant growth to a set of carefully developed peer-groups. All data is based on self-reported FERC Form 1 reports. Importantly, performing the peer analysis avoided some of the

significant data challenges that exist with Liberty, which I discuss in detail in Section II that discusses Liberty Utilities' financial data. My reasoning for performing peer comparison analysis over a traditional utility analysis is described further in this Introductory sections . In brief, my reasoning stems from the strong belief that after three years of difficult transition, now is a critical time to evaluate Liberty as a self-sufficient electric distribution IOU (investor owned utility) - free of support from National Grid for the first time beginning in2015. I also look at the potential benefits of Liberty's increased spending and increased Distribution Plant. To do this I compare Liberty's reliability results to those of other utilities in the region. Reliability is discussed in Section V. The results and findings of my peer comparison analysis are presented in Sections VI Section VII findings. I summarize and provide my recommendation is contained in Section VIII.

Q. How is your testimony organized?

I have divided my testimony into eight sections. The contents of those sections are briefly discussed below.

Section I. Introduction: I introduce OCAs analytical approach in this docket. This approach is that of benchmark comparisons. My analysis compares Liberty's performance to utilities in peer groups. The scope includes all years since the acquisition. I discuss the driving factors for choosing this alternative approach.

Section II. Liberty Financial Data: I discuses data inconsistencies in Liberty's FERC reports and the rate case filing that hinder traditional analysis. Data inconsistency was an important factor prompting the alternative approach I discuss in the introductory section.

Section III. FERC accounts used for Peer Comparison: In this section I discuss which FERC accounts on the operating statement and on the balance sheet will be compared, and discuss why the OCA's two areas of focus are O&M expense and Distribution Plant growth as shown in Charts 1 and 2 and listed in Attachment JJB-2" "FERC Accounts Used in Peer Benchmark ."

Section IV Peer Comparison Methodology I explain the peer benchmarks used to assess O&M costs and Distribution Plant Asset growth. I also discuss why three different peer groups are used (national, regional, and by customer concentration) and how they are designed.

Section V Liberty Reliability: Recognizing that there are potential reliability benefits realized by Liberty's increased spending and capital expansion, this section compares Liberty's reliability record in 2013 to 2016 with the regional peer group which includes electric IOUs (investor owned utilities) in Maine, New Hampshire and Vermont.

Section VI Finding #1 O&M Costs: I discuss how Liberty's O&M costs outlined in Section III compare to the peer groups.

Section VII Finding #2 Growth Rate of Gross Plant Assets: I discuss how Liberty's growth in utility plant outlined in Section III compares to all US Electric IOUs.

Section VIII Summary and Recommendation: I summarize Liberty's high operating costs and high growth rate in distribution plant. I summarize the OCA's concerns with Liberty's multiyear capital expenditure tracking proposal and provide my recommendation.

Q. What driving factors are key to your testimony?

A. There are three driving factors that are key to my testimony.

First, it is well documented that the Company had experienced major operational, information technology and customer service problems immediately following its acquisition by Liberty Utilities in July 2012. The seriousness of these events precipitated a PUC investigation of portions of Liberty's operations that concluded with the August 8, 2016 Liberty Consulting Group's report titled "Management and Operations Audit of the Customer Service and Accounting Functions of Liberty Utilities" (referred to as "2016 Management Audit" in my testimony). Section III of the 2016 Management Audit reports significant

deficiencies in Liberty's planning and capital budgeting[1]. Yet, in this environment of poor management controls, Liberty was expanding its Distribution Plant Assets faster than almost all other electric utilities in the US[2]. There is evidence that some investments were poorly tracked. Consequently, significant cost overruns occurred. The risk of excessive and impudent investments falls on ratepayers these if these investments are added to 2015 test year rate base.

Second, this docket represents the Commission's first opportunity to review Liberty's success as a standalone electric IOU. Four years following its difficult acquisition and transition, Liberty should no longer be operating or working in a "utility startup" mode.[3] Section II Liberty Financial Data includes a description of the scope of functions Liberty developed while National Grid was providing TSA[4] support. Importantly, test year 2015 is Liberty's first full year without TSA support.

1 "The New Hampshire capital budget packages do not provide detailed business case analysis for the growth, discretionary and regulatory supported projects as specified in the applicable Capital Expenditure Policy (Recommendation 2)" Liberty Consulting 2016 Management Report, Section III Planning and Budgeting Page III-26

2 Section II Finding #2 Growth of Gross Distribution Plant of my testimony discusses Liberty's growth in distribution plant assets

3 The Company describes its transition years as working as a startup. Reference attachment JJB-7 OCA 4-7

4 Transaction Service Agreement (TSA) facilitated certain parts of Liberty's system to be run by National Grid for a period of time following the acquisition. TSAs and TSA costs are discussed in Section II of my testimony

Third, the Company's data quality, also discussed in Section II, has hindered analysis and lowered the visibility of the Company's operating performance. Liberty's accounting methods and systems, the engine used to organize and present data to the Commission and to FERC, underperform. Chapter V of the 2016 Management Audit summarized accounting issues relevant to data problems which I discuss in Section II. These issues include poor documentation of financial systems,[5] poor integration and poor data flow documentation between back office systems and the general ledger system.[6] The 2016 Management Audit recommendation includes that Liberty creates accounting manuals and improves accounting procedures.[7] The deficiencies outlined in the 2016 Management Audit partly explain data inconsistencies in the Company's financial statements in years 2012 to 2015.

Q. How did these three driving factors influence your analytical approach?

5 "Gaps exist in documentation of the financial system" (Recommendation 3 and 4);

6 (discussing undocumented data flows between the Cogsdale CIS system and the GP General Ledger system) "these instances occurred for three reasons: a failure to update the chart of account mapping table within, (b) incorrect General Ledger codes in the chart of accounts" Liberty Consulting 2016 Management Report, Section V Accounting Page V21

7 "Complete and keep current a formal accounting manual that includes supporting accounting procedures. (Conclusion 1)" Liberty Consulting 2016 Management Report, Section V Accounting Page V21

A. For reasons discussed later in my testimony, the OCA has chosen an alternative approach in this docket to provide additional insights to the Commission about Liberty and the extent to which the Commission should rely on the Company's filing as the Commission exercises its responsibility to fix rates at a just and reasonable level. At the same time, the OCA expects Staff's traditional cost of service revenue requirement analysis will provide an appropriate framework for reviewing the rate increase request in this docket.

Q. Please summarize your alternative approach in greater detail.[8]

A. Liberty's O&M expense increases and their high growth rate in Distribution Plant Assets are major issues. My testimony presents an alternative approach to reviewing O&M expense levels and Distribution Plant Asset growth rates. My analysis compares Liberty's performance to peer group utilities, based on FERC account data. Benchmark metrics are created using peer utilities O&M expense levels and peer utilities growth rates in Distribution Plant Assets. The same metrics are calculated for Liberty, and for Unitil.[9] Metrics are

8 Refer to Section IV Peer Analysis Methodology of my testimony for complete description of methodology.

9 Unitil peer comparisons are included in my analysis based on feedback from Company. Section IV Peer Analysis Methodology of my testimony discussion of peer group design.

constructed to ensure they are normalized,[10] to allow comparison. Any significant difference between Liberty and the peer group metrics provides a good check of weather Liberty is performing demonstrably better or worse than the peer(s). The six bar charts that I review in Sections VI and VII indicate that there are significant differences between Liberty and the peer group(s) with respect to the metrics examined. These significant differences between Liberty and the peer group(s) are easily identifiable in Figures 1 to 6 included in Sections VI and VII findings of my testimony. I repeat the peer benchmark analysis for each year 2010 to 2015.[11] Having six years of peer comparison results provides context, trends, data smoothing to a degree, and insight to Liberty's performance from the acquisition through the 2015 test year.

Q. What are your reasons for choosing the peer-benchmark approach?

A. This approach was chosen for three reasons:

10 Normalization in my testimony means presenting data on a per unit basis (by customer) or by percentage change, in order to facilitate comparison between utilities and between years.

11 The six year benchmark process creates six sets of bar charts – one for each year.

First, the OCA sought a method that would fairly evaluate Liberty's performance before, during and after the acquisition transition.[12] The peer-benchmark approach uses "Summary Data",[13] from FERC Form 1 filings, which reduces the distorting effects of Liberty's accounting inconsistencies.[14] Analysis at the Summary Data level excludes some of the effects of accounting adjustments by Liberty and other utilities.[15]

In addition, Summary Data analysis also excludes some (not all) of these distorting effects as reflected in Liberty's assertion that a comparison of its 2015 O&M costs and Administrative Costs to past years is "not meaningful" due to TSA accounting,[16] due to start up challenges, and due to movement of payroll between accounts in 2014-2015 (reference Attachment JJB-7 OCA 4-7).

12 Regarding performance in year 2011, which is prior to the 2012 acquisition, National Grid is the entity (owner) being evaluated, not Liberty.
13 For my analysis Summary Data means Sub-Total or Total amount of the individual O&M expense accounts (FERC 580,581…) or individual distribution plant assets accts (FERC 360,361,361). An example of Summary Data is seen Section III FERC Accounts used for Peer Comparisons. For 2015 $7,022,450 is summation of the 19 FERC accounts listed in rows above.
14 Section II Liberty Financial Data of my testimony discusses data issues relative to Liberty.
15 recognize accounting changes and adjustments exist across all utilities and accounting policies among utilities also differ.
16 Section II Liberty Financial Data discusses Transaction Service Agreements (TSAs) and National Grid's role in supporting Liberty's operations between 2012 and 2014.

Second, according to Liberty, it no longer is operating as a "utility startup."- Therefore a comparison of performance to other utilities is fair and appropriate at this time. More efficiencies should exist after four years of ownership and massive new capital expenditures. The Company should demonstrate cost declines, or at least cost stabilization, now that the acquired company is fully integrated.

Third, Liberty has proposed future revenue increases tied to future growth in Distribution Plant Assets out to 2021. A capital tracking mechanism paves the way for rate increases tied to new plant additions. Comparing Liberty's track record of increases in O&M costs and Distribution Plant growth rate to that of its peer utilities is a valid undertaking prior to approving continuation of current practices.

SECTION II Liberty Financial Data

Q. Please discuss data issues in the Company's filing.

A. The Company's self-reported FERC Form 1 historical filings from 2012 to 2015, and the Company's revenue requirement schedules contained in the April 29, 2016 original filing in this rate case, are very difficult to analyze. Inconsistencies in how financial data is accounted for, reported and presented, - coupled with recurring accounting impacts stemming from Liberty's 2012 acquisition, make it difficult to analyze

how the Company is truly performing and whether recommendations in the 2016 Management Audit are followed and effective.

Q. Explain your reasoning for concluding the Company's data is difficult to analyze.

A. Three factors present analytical hurdles to understanding the Company's performance:

1. 2015 General Ledger (GL)-Test Year;

2. Transition Service Agreement Costs (TSA Costs); and

3. Accounting adjustments.

Q. Why is GL Test Year data (called Historic Year Ended in the filing) a hurdle to understanding their operational performance?

A. The 2015 test year uses data from the Company's internal general ledger. The test year is labeled "Historic Test Year Ended Dec. 31, 2015" in the schedules. According to the Company, "in some cases, due to the specifics of the FERC report, the presentation differs."[17] To an analyst, this "presentation" difference, which I've referred to as a data inconsistency, requires an added layer of analysis to understand operating expenses proposed for recovery. In addition, the presentation difference in the Historic Test year data and FERC data automatically hinder direct comparison of the Company's Historic

17 reference attachment JJB-5 OCA 1-8.

Year Ended data in the filing to the Company's prior year FERC Form 1 filing. This results in distortions in trend analysis, which is a crucial analytical step in utility financial analysis

Q. What are Transition Service Agreements (TSAs) and TSA costs?

A. Multiple Transition Service Agreements were in effect following the acquisition between National Grid, the former owner of Granit State Electric Corporation (GSEC), and Liberty, which acquired Energy North Gas (ENG) and GSEC. TSAs were contractual requirements of National Grid to run parts of GSEC operations while the Company was building, testing and deploying its own internal capability to run an electric IOU. To varying degrees, TSAs covered major functional areas including operations, energy procurement, customer service, information technology, finance, planning, administration, regulatory, human resources, and legal. Separate TSAs existed across many of these areas and expired over time as Liberty and GSEC functionally came on line in years between years 2012 and 2014. The last TSAs ended in 2014. TSA costs are fees paid by the Company to National Grid relative to TSA agreements for years 2012 to 2014.

Q. Why are TSA costs in prior years a hurdle to understanding the Company's performance in 2015 if they were not being incurred in 2015?

A. Costs for tasks performed under TSA and after the expiration of TSA (performed by GSEC) are accounted for differently. TSA costs are not mapped consistently to the same account year to year. This creates difficultly analyzing costs over a range of years. In addition, the costs to perform a task under a TSA were set based in part on National Grid's cost structure, that does not exist today. As a result, to some unknown extent, distribution operations related expenses and administrative and general expenses are inconsistently presented for years 2012 to 2015.

Q. Why are accounting adjustments in years 2012 to 2015 a hurdle to understanding the Company's performance?

A. Accounting adjustments create data inconsistencies and can lead to a wrong conclusion or misunderstanding as to why an expense level has changed. The Company's books are impacted by acquisition adjustments as well as numerous other changes in how expenses are accounted for internally and on the FERC Form 1. Acquisition adjustments have occurred in years 2012 and 2013 (Reference Attachment JJB-3 OCA 1-6). Acquisition adjustments are not well documented and not accounted for consistently. In the Company's response to OCA 1-16 "Rather, the reconciling items relate to how items were reported in the FERC Form 1 for each of the years. The Company acknowledges that the acquisition adjustment was not

reported consistently in prior years. The Company will be reporting the acquisition adjustment consistent with the 2015 FERC Form 1 in future years." (Reference Attachment JJB-6 OCA 1-16 (b). They are not well documented. In addition, non-acquisition related adjustments and reclassifications have been made to income statement accounts and to balance sheet accounts. Many of these accounting changes are not easily identifiable and add complexity to the analytical process.

SECTION III FERC Accounts used for Peer Comparison

Q. What performance areas are used for comparing Liberty to other utilities?

A. My testimony analyses two costs areas where Liberty has experienced dramatic growth – O&M costs and Distribution Plant Assets. The full list of accounts is provided in Attachment JJB-1 "FERC Accounts Used in Liberty vs. Peer Comparison Analysis."

Q. Why did you select these areas for performing your peer comparisons?

A. Liberty's O&M costs and Distribution Plant Assets have increased in dramatically in a period of low customer growth. For the years 2011 to 2015, Liberty's FERC Form 1 report reflects:

6% growth in Customers

21% growth in O&M Costs (Summary Data level)

51% growth in Net Plant (book value)

43% growth in Net Plant per Customer

The scope of these changes when compared to relatively flat/low growth rate in customer base prompted OCAs analysis.

Q. Please illustrate increases in Distribution O&M using FERC data.

A. Chart 1 below depicts the trend in total Distribution O&M for years 2011-2015. It also presents account by account levels and Summary Data totals at bottom. I have included FY 2014 in Chart 1 to illustrate a data inconsistency example due to accounting adjustments, which I discussed in Section II. The significant changes and erratic trend shown for certain accounts undermines confidence in the numbers. It is difficult to determine if an expense increase or decrease is due changing business factors, or changing accounting treatment, or a combination of both. According to the Company changes in treatment of certain labor expenses has affected the following accounts:

-580 Operations Supervision,

-583Overhead Lines

-597 Maintenance of Meters

-598 Maintenance of Miscellaneous Distribution Plant

Accounting reclassification of expenses between these accounts makes it difficult to assess the underlying business fundamentals. Note that the use of Summary Data in my peer-benchmark analysis helps reduce the distortion and movement between individual accounts.

CHART 1: 21 % Increase in Total Distribution O&M from 2011 to 2015

acct	Expense	2011 FERC	2015 FERC	$ Change	% Change
580	Operations Supervision	$ 61,887	$ 1,652,625	$ 1,590,738	2570%
581	Load Dispatching	$ 78,072	$ 626,072	$ 548,000	702%
582	Station	$ 375,599	$ 123,875	$ (251,724)	-67%
583	OH Lines	$ 377,568	$ 478,090	$ 100,522	27%
584	UG Lines	$ 113,160	$ 83,922	$ (29,238)	-26%
585	Street Lighting	$ 27,523	$ 31,768	$ 4,245	15%
586	Meters	$ 273,727	$ 128,354	$ (145,373)	-53%
587	Customer Installs	$ 167,730	$ 781	$ (166,949)	-100%
588	Miscellaneous	$ 1,055,751	$ 691,179	$ (364,572)	-35%
589	Rents	$ 3,957	$ -	$ (3,957)	-100%
	Total Ops	$ 2,534,974	$ 3,816,666	$ 1,281,692	51%
590	Maint Supervision	$ 884	$ 43,868	$ 42,984	4862%
591	Structures	$ 9,542	$ 2,509	$ (7,033)	-74%
592	Stations	$ 205,221	$ 243,763	$ 38,542	19%
593	OH Lines	$ 2,893,337	$ 1,922,369	$ (970,968)	-34%
594	UG lines	$ 6,152	$ 2,277	$ (3,875)	-63%
595	Transformers	$ 71,755	$ 21,186	$ (50,569)	-70%
596	Street Lighting	$ 80,179	$ 65,209	$ (14,970)	-19%
597	Meters	$ 14,016	$ 360,315	$ 346,299	2471%
598	Miscellaneous	$ 13	$ 544,288	$ 544,275	4186731%
	Total Maintenace	$ 3,281,099	$ 3,205,784	$ (75,315)	-2%
	Total Distribution O&M	**$ 5,816,073**	**$ 7,022,450**	**$ 1,206,377**	**21%**

Chart 1 shows Liberty's O&M increasing 21% between 2011 and 2015. As will be discussed later in Section VI findings, Liberty's growth in Gross Distribution Plant is very high compared to the peer utilities.

Q. Please discuss Liberty's net plant levels which will be compared to peers.[18]

A. Chart 2 depicts the high growth in net plant. Between years 2012 and 2015 Liberty's Net Plant increased 51%. This equates to a 43% increase in net plant per customer.

CHART 2: 51% Growth Rate Net Plant between 2012 to 2015:

	2012 FERC	2013 FERC	2014 FERC	2015 FERC	% growth
Customers (Liberty)	41,272	41,957	41,957	43,705	6%
Net Plant (Liberty)	$ 88,243,923	$ 96,685,028	$ 124,604,494	$ 133,503,323	51%
Net Plant/ per Customer	$ 2,138	$ 2,304	$ 2,970	$ 3,055	43%

As will be discussed later in Section VII findings, Liberty's growth rate in new plant will be analyzed in the peer comparison analysis described in Section IV Peer Analysis Methodology below.

SECTION IV. Peer Analysis Methodology

Q. Has the Company performed a similar comparison of its operations to its peers?

A. The Company has not conducted a peer benchmark analysis (Reference Attachment JJB-8 OCA 1-20 (c) and (d)).

Q. What steps were taken to develop your comparative peer analysis?

18 Peer comparisons of Distribution Plant Asset growth are performed on a gross basis, due to available information.

A. I've followed four guidelines as the best possible given time and available data:

1. Compare Liberty to other utilities (peer benchmark analysis);

2. Follow a fair "apples to apples" approach (using summary account levels from FERC Form 1 filings);

3. Incorporate a five-year scope (to reflect ownership before and after Liberty Utilities); and

4. Show normalized comparison results annually within the five year period.

The impact of changes in Liberty costs and utility plant will be reflected in how Liberty compares to peers for the two cost areas analyzed.

Because the source of peer benchmark analysis data is the FERC Form 1, and because PUC Audit has verified the Company's general ledger reconciles to FERC, the data used for the peer benchmark analysis is consistent with 2015 test year data. However, as discussed the peer analysis covers a five year period.

Q. Describe the methodology you used to generate a peer comparative analysis.

A. The five-step approach to generating peer benchmark data is summarized below:

1. Use FERC Form 1 data for all US Electric IOUs for years 2011 to 2015.

2. Create utility peer groups

3. Select the benchmark metrics that will be compared

4. Compare Liberty's performance to its peer utilities

5. Identify OCA areas of concerns based on areas of significant differences between Liberty and peer group performance metrics over the period.

Q. What is the source of data used in the peer comparison analysis?

A. In this testimony, publicly-available performance data for 137 electric distribution IOUs in the US is used to benchmark Liberty Utilities' performance against its peers. Data for this report is sourced directly from information submitted by 137 US IOUs on FERC Form 1 and EIA[19] Form 861 from 2010 to 2015.

Q. How is operating data normalized to facilitate comparisons between Liberty and the peer groups?

19 The Form EIA-861 and Form EIA-861S (Short Form) data files include information such as peak load, generation, electric purchases, sales, revenues, customer counts and demand-side management programs, green pricing and net metering programs, and distributed generation capacity

A. To facilitate direct comparison of Liberty and its peers, O&M costs are normalized into costs per customer reported to EAI and FERC Form 1. Annual percentage change is used to compare growth rates of Gross Distribution Plant Assets.

Q. What benchmark metrics are used to compare Liberty's performance to the peer groups?

A. The peer benchmark metrics in my analysis are:

1. Distribution O&M Expense normalized by customer;

2. Growth rate of Distribution Gross Plant Assets over time; and

3. Reliability.

Q. For what years are the benchmark peer comparisons made?

A. Peer comparisons are made across years 2011 to 2015.

Q. What were your considerations in selecting this time period?

A. Year 2011 reflect performance of GSEC under National Grid ownership. Year 2012 represent a mix of National Grid ownership performance. Years 2012 to 2015 reflect performance under Liberty Utilities ownership.

Q. How were peer groups designed?

A. Peer groups are determined based on customer concentration and geographic proximity to the Liberty service territory.

Q. Was the Company asked to provide a list of peer utilities?

A. Yes. The company indicated that "in New Hampshire the utility closest to a peer would be Unitil." No other utilities were suggested for peer group design in the response. Reference Attachment JJB-8 OCA 1-20 (b).

Q. Did the Company suggest metrics for selecting peers?

A. Yes. The Company suggested "size of the utility, lines of business (e.g. electric, gas, transmission, generation), operating jurisdiction, and regulatory and legislative similarities and differences." Reference Attachment JJB-8 OCA 1-20 (b).

Q. What other factors are considered in your the peer group design?

A. I've included Unitil in my peer analysis. I used customer density as a metric for a "size" peer group. Customer density is an important characteristic when comparing utility operating expenses as there is a fixed component to these costs. Regarding lines of business, my analysis is focused exclusively on distribution expenses and distribution assets.

Q. What factors did you take into account selecting IOUs for the reliability peer group?

A. Weather and vegetation growth rates are important characteristics for evaluating reliability. A regional peer group for Maine, New

Hampshire and Vermont was used for reliability comparisons. The "IOUs in ME, NH, and VT" peer group generally includes[20]

- Emera Maine
- Green Mountain Power
- Liberty Utilities
- Public Service Company of New Hampshire (Eversource)
- Central Maine Power
- Unitil

Q. List the peer groups used in your peer benchmark?

A. There are three peer groups in my analysis:

1. All US Electric IOUs;
2. US IOUs with Customer density between 30 to 40 customers per mile - (Liberty's customer density is 34.1); and
3. Electric IOUs in Maine, New Hampshire and Vermont.

Q. How is Unitil included in the peer benchmark analysis based on the Company's response to OCA 1-20 (b)[21]?

A. I've performed peer comparison for Unitil and included them in all peer comparison results and charts.

20 Unitil data was not reported in all years.
21 See Attachment JJB-8 OCA 1-20

SECTION V Liberty Reliability

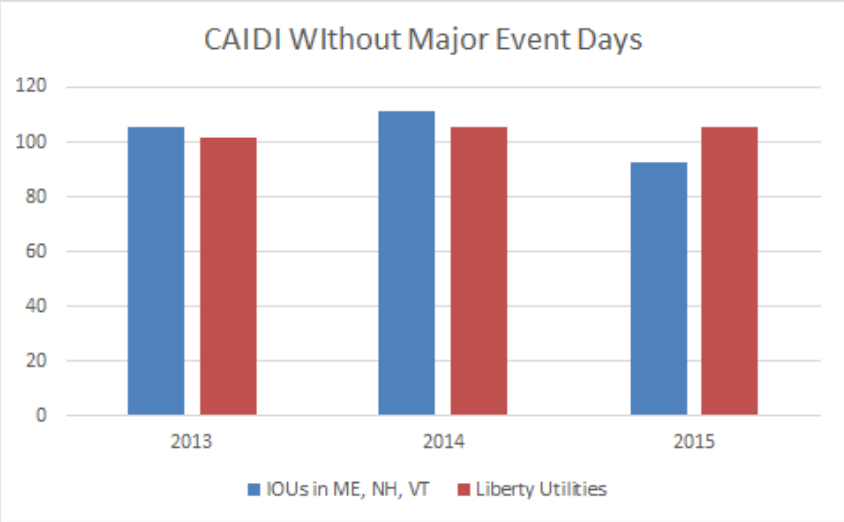
Q. Have you reviewed the potential benefits of Liberty's higher O&M costs and higher Distribution Plant?

A. Yes, I have compared Liberty to peer utilities in the Maine, New Hampshire and Vermont region. The results suggest Liberty compares well with its peers. However the OCA is concerned the excessive growth in operating costs and capital infrastructure may not be justified by Liberty's reliability based on data presented in this reliability section.

Q. What is Liberty's reliability performance trend since acquisition?

A. The reliability graph presented below shows Liberty generally compares favorably to per utilities based on CAIDI[22] Without Major Events. SAIDI[23] data shows recent improvement in Liberty's reliability. However, the Company has not made its case that the 2015 improved levels justify its very high growth rate in O&M Costs and Distribution Plan Assets which are evaluated in Sections VI and VII of my testimony.

22 Customer Average Interruption Duration Index (CAIDI) is a reliability index used by electric power utilities.
23 System Average Interruption Duration (SAIDI)



As discussed in Section IV Peer Analysis Methodology, the "IOUs in ME, NH, and VT" based on available data and generally includes

Emera Maine
Green Mountain Power
Liberty Utilities
PS New Hampshire
Central Maine Power
Unitil

The company's reliability compares favorably to the peer group. Additional years of data will help determine if the Liberty's reliability performance adequately justifies the company's expenses, including its large expansion in distribution plant.

SECTION VI Finding #1 - O&M Costs

Q. What are your peer comparison findings regarding metric 1 - O&M Costs years 2011 to 2015?

A. In this section I present results comparing Liberty's O&M costs to the three peers. The results are displayed in three bar graphs.

Figure 1: Liberty's Distribution O&M Costs vs. All US IOUs

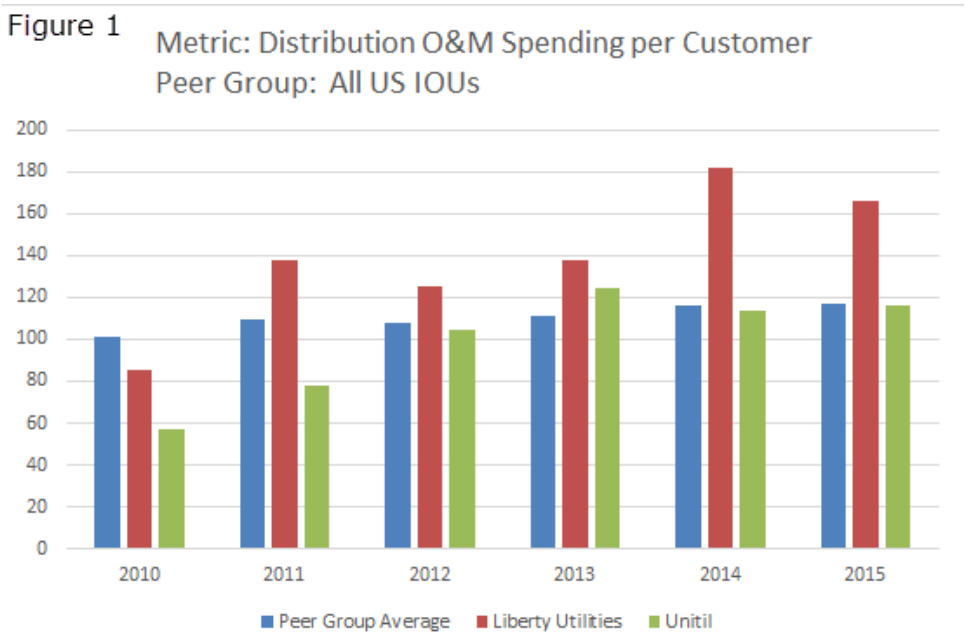
Figure 2: Liberty's Distribution O&M Costs vs. IOUs with similar customer density

Figure 3: Liberty's Distribution O&M Costs vs. IOUs in ME, NH, VT

Q. How does Liberty's O&M compare to the All US IOU peer group?

A. Figure 1 shows the comparison of benchmark metric 1, O&M cost, the peer group, normalized on a per customer basis. Liberty's O&M cost was lower than peer group 1 in 2011 prior to the acquisition. Liberty's O&M cost is consistently higher than the peer group in all years since the 2012 acquisition.

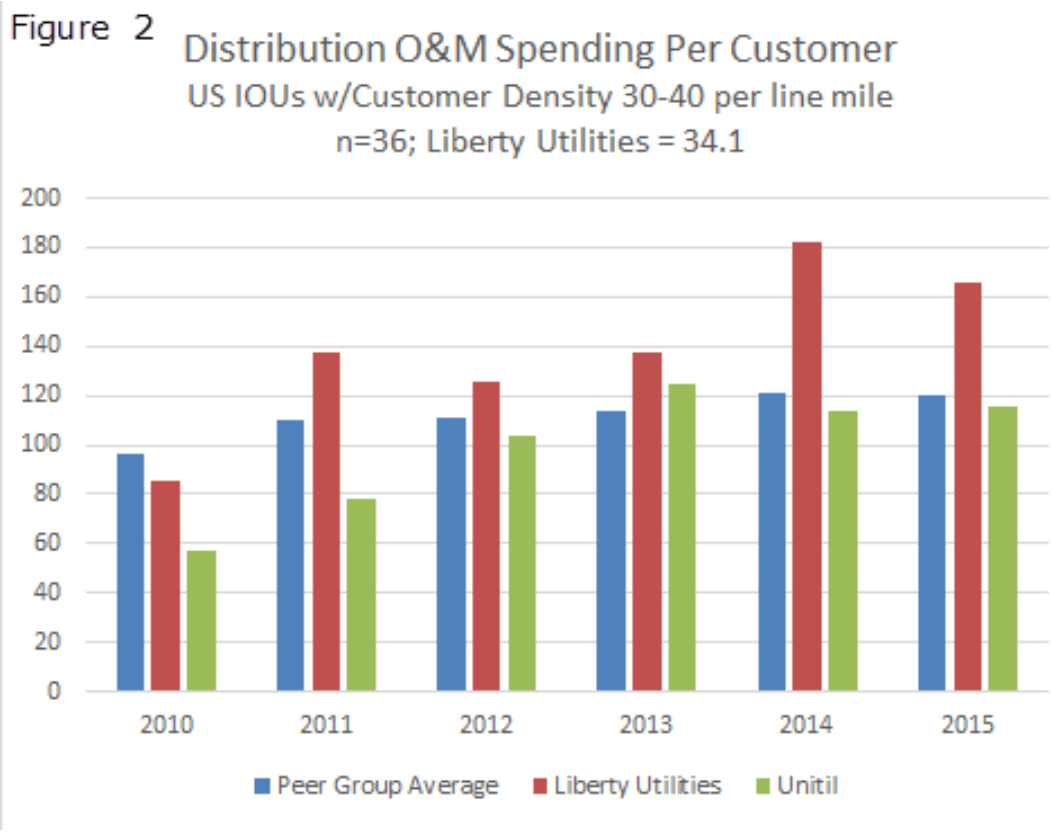
Figure 1



Q. How does Liberty's O&M compare to IOU with similar customer density?

A. Figure 2 shows the comparison of Liberty's O&M cost with peer group #2 - US IOUs with density between 30 and 40 customers per mile (Liberty is 34.1). Liberty's O&M cost was lower than the peer group in 2010 prior to the acquisition. Liberty's O&M cost was higher than the peer group in all years since the 2012 acquisition.

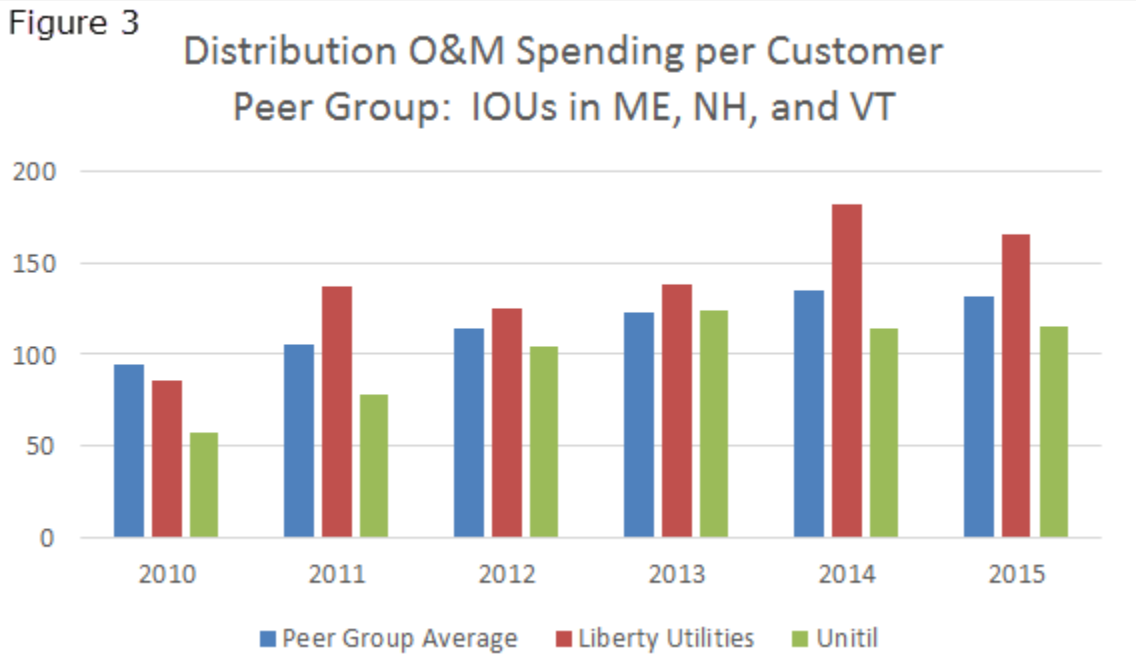
Figure 2



Q. How does Liberty's O&M cost compare to IOUs in ME, NH and VT?

A. Figure 3 illustrates comparison of Liberty to IOUs in Maine, New Hampshire and Vermont Comparison: Liberty's O&M was lower than the peer group in 2010. Liberty's O&M is higher than the peer group in 2011 and all years following the 2012 acquisition. Unitil is lower than Liberty in all years.

Figure 3



SECTION VII Finding #2 - Growth Rate of Gross Distribution Plant

Q. Please compare Liberty's growth in net plant to Unitil for years 2011 to 2015?

A. Chart 3 "Liberty vs. Unitil Net Plant from 2011 to 2015" shows Liberty growth in net plant at 51% which is more than double Unitil's net plant growth of 18% for the same period.

Chart 3: Liberty vs. Unitil Growth in Net Plant from 2012 to 2015.

	2012 Liberty FER	2013 FERC	2014 Liberty FER	2015 Liberty FER	na
Customers (Liberty)	41,272	41,957	41,957	43,705	6%
Net Plant (Liberty)	$ 88,243,923	$ 96,685,028	$ 124,604,494	$ 133,503,323	51%
Net Plant (UNITIL)	$ 162,231,645	$ 169,632,173	$ 178,697,773	$ 191,210,247	18%

Q. What are your peer comparison findings regarding metric 2 - Liberty's Percent Growth Gross Distribution Plant?

A. In this this section I present results comparing Liberty's growth in Gross Distribution Plant to the peer groups, using bar charts.

Figure 4: Liberty's Percent Growth Distribution Plant vs. All US IOUs

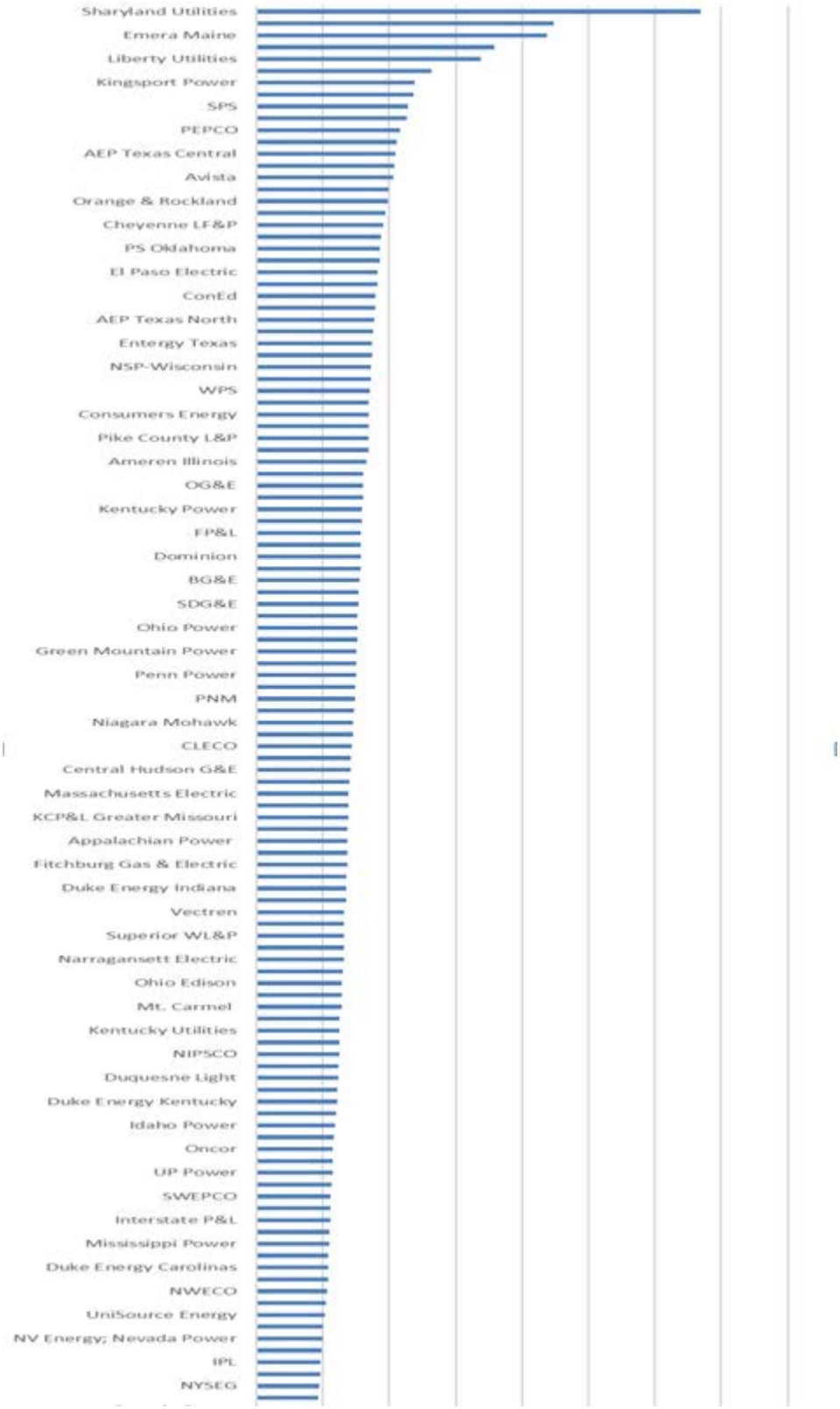
Figure 5: Liberty's Percent Growth Distribution Plant vs. IOUs with similar customer density

Figure 6: Liberty's Percent Growth Distribution Plant vs. IOUs in ME, NH, VT

Q. How does Liberty's Growth Gross Distribution Plant compare to the All US IOUs?

A. Figure 4 shows the comparison of Liberty's growth in gross plant to the peer group "All US Electric IOUs. The results suggest Liberty may be investing more than is necessary to provide safe and reliable utility service. Based on comparison to all US electric utilities, only four Electric IOUs in the US grew their distribution plant at a greater percentage rate than Liberty between years 2012 and 2015. Based on this peer review Liberty has the fifth highest growth rate out of all 137 utilities in the FERC database.

Figure 4 Percent Growth in Gross Distribution Plant
US IOUs 12/31/12 to 12/31/15



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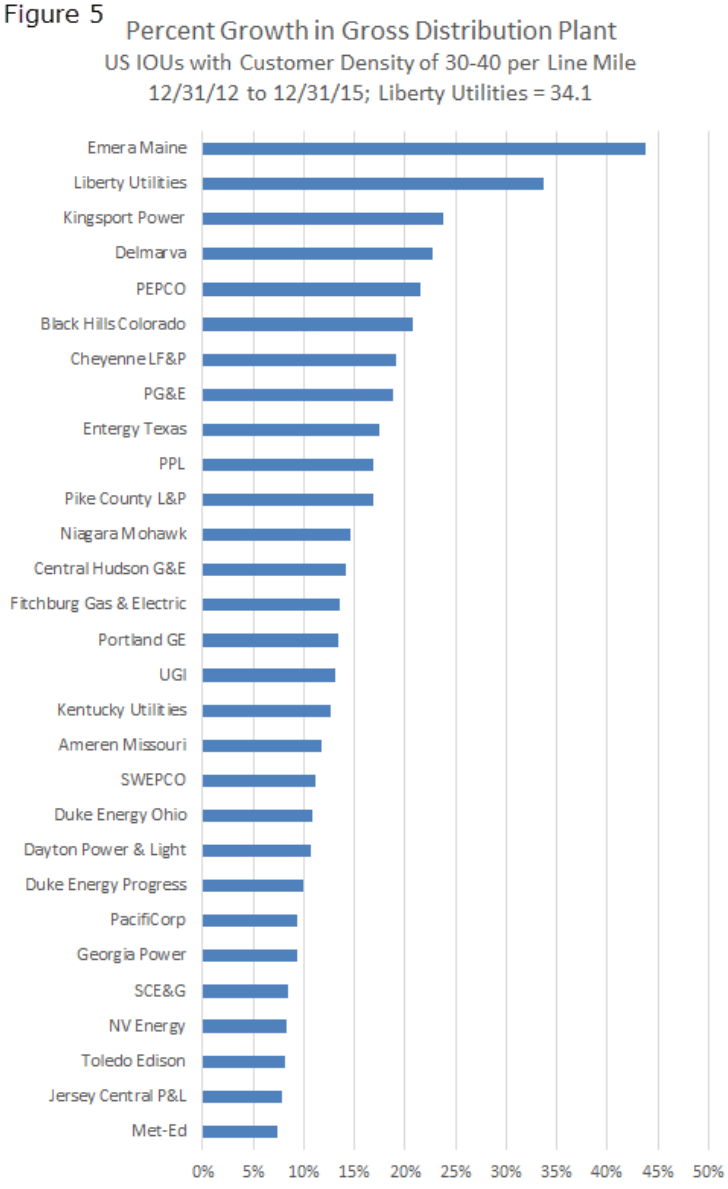
Q. How does Liberty's Growth Gross Distribution Plant compare to IOUS with similar customer density?

A. Figure 5 shows Liberty's percent growth in gross distribution plant compared to the customer density peer group. Liberty ranks second highest in percent growth based on comparison to IOUs with similar customer density.

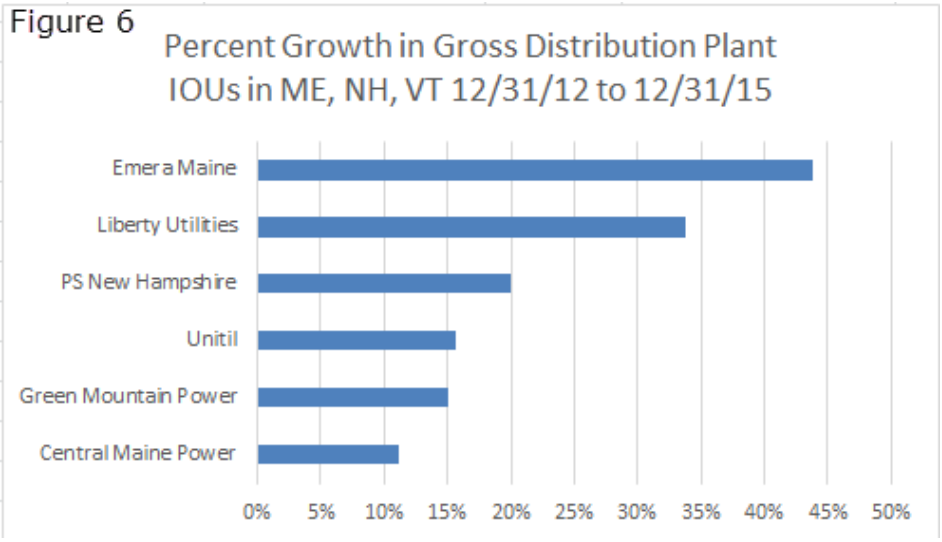
Figure 5



Q. How does Liberty's Growth Gross Distribution Plant compare to IOUs in ME, NH and VT?

A. Figure 6 shows Liberty's percent growth in gross distribution plant compared to the regional utilities. Liberty ranks second highest in percent growth based on comparison to the regional peer group.

Figure 6



SECTION VIII Summary & Recommendation

Q. Please summarize you position in this docket.

A. Liberty has emerged from its difficult three-year acquisition transition with operating and maintenance costs above their pre-2012 acquisition levels, above Unitil, and above benchmark comparisons to its peers for every year since the acquisition. The OCA does not agree that Liberty's higher test year 2015 operating expense levels, caused by major startup challenges of 2012-2014, should automatically set a permanently higher

cost structure for customers to pay. Following four years of major capital investment, lower costs, or at least stabilized costs should follow.

Despite static customer growth, Liberty's Operations and Maintenance Costs (O&M) have increased 21% since its acquisition, and Distribution Plant (net) has increased 51%. Liberty's normalized O&M costs per customer exceed peer group benchmarks all four years since the 2012. This includes all three peer groups (All Electric US IOUs, Electric IOUs with similar customer density, and IOUs in NH, VT, ME). This is in contrast to Unitil[24] which shows normalized O&M costs per customer lower than the peer groups in all years except 2013.

Q. What is your conclusion regarding the proposed multiyear rate plan for capital expenditures?

The inclusion of a multiyear rate plan for capital expenditures potentially shifts the risk of overbuilt plant from the company to rate payers. Since its acquisition Liberty has had 50% growth rate in net plant, cost overruns on capital projects, and documented deficiencies in its planning processes discussed the 2016 Management Audit. Liberty has not made its case for approving mechanism that paves for

24 Unitil is included in peer comparisons based Liberty's response to discovery.

future revenue increases as new Distribution Plant Assets extending to 2021.

In reviewing the proposed multiyear capital tracking mechanism the Commission should keep in mind that:

- Liberty's capital projects have been accompanied by significant cost overruns, suggesting the potential overbuilding of their network.
- Only four electric utilities in the US have grown their utility plant faster than Liberty between 2012 and 2015.
- According to findings in the 2016 Management Audit Liberty does not exercise the best capital budgeting planning and controls. This raises the risk of building unnecessary plant. Based on technical sessions it is unclear if this situation has been fully resolved.
- While Liberty's reliability compares favorably to peers on CAIDI, and shows improvement in 2015 SAIDI, the have not justified their high costs and over expansion in this docket.

Q. What is your recommendation?

A. The Commission should reject the proposed capital tracking mechanism. Recovery of costs related to distribution plant assets should incorporate performance based reliability metrics. Performance incentives and financial penalty should be included in cost recovery

mechanism for future plant additions. Performance metrics and Performance Based Regulation (PBR) is studied in "Performance-Based Regulation in A High Distributed Energy Resources Future", by Tim Woolf and Mark Newton Lowry.25

Q. Does this conclude your testimony?

A. Yes.

25 "Performance-Based Regulation in A High Distributed Energy Resources Future", by Tim Woolf and Mark Newton Lowry (part of Lawrence Berkley National Labs (LBNL) Future Electric series
https://emp.lbl.gov/sites/all/files/lbnl-1004130_0.pdf

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