MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

COST OF SERVICE

LIBERTY UTILITIES (MIDSTATES NATURAL GAS) CORP.,

d/b/a LIBERTY UTILITIES

CASE NO. GR-2018-0013

Jefferson City, Missouri
March 2, 2018

**** Denotes Confidential Information ****

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STAFF'S COST OF SERVICE REPORT OF

LIBERTY UTILITIES (MIDSTATES NATURAL GAS) CORP., d/b/a LIBERTY UTILITIES

Case No. GR-2018-0013

I. Executive Summary

Staff conducted a review of all cost of service components (capital structure and return on rate base, rate base, depreciation expense, and operating revenues and expenses) for Liberty Utilities (Midstates Natural Gas) Corp., d/b/a Liberty Utilities ("Liberty Midstates"). This audit was conducted in response to Liberty Midstates' September 29, 2017, filing seeking to increase rates by $7.5 million. Liberty Midstates is currently collecting Infrastructure System Replacement Surcharge (ISRS) revenues of approximately $470,000. Since Liberty Midstates is currently collecting these revenues, their proposed net rate increase is approximately $7.0 million.

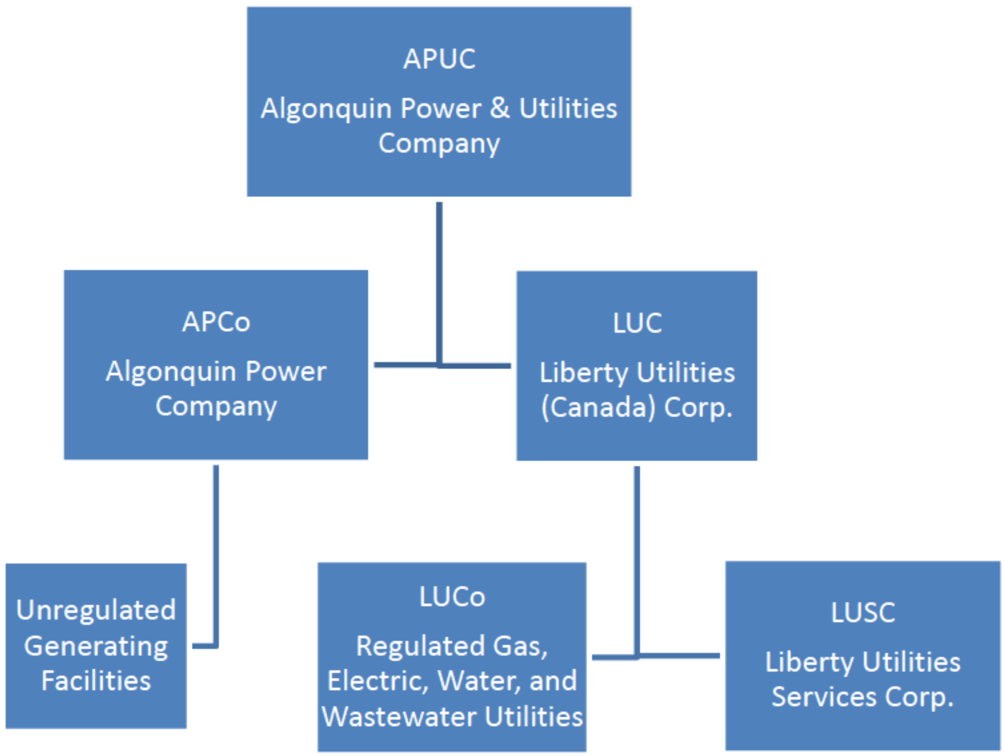
Staff Witness/Expert: Michelle A. Bocklage

II. Background of Liberty Midstates

Liberty Midstates' parent company, Algonquin Power & Utilities Corporation ("APUC"), is a Canadian corporation whose stock is traded on the Toronto Stock Exchange. APUC has two business units:

- Algonquin Power Company ("APCo"), which owns or has interests in unregulated power generation facilities; and
- Liberty Utilities (Canada) Corp. ("LUC") which owns 100% interest in LUCo, which owns and operates thirty regulated utilities located in ten states within the United States that provide retail water, sewer, electric and natural gas service.

Liberty Midstates falls under Liberty Utilities Company (LUCo). Liberty Midstates is comprised of Missouri, Iowa, and Illinois utilities. In addition, Liberty Utilities Services Corp. (LUSC) is a service Company that has been recently formed. Below is a simplified organizational chart illustrating the current structure of APUC and its affiliated companies.



The Missouri gas operations are part of Liberty Midstates, whose main office is in Joplin, Missouri. The Missouri gas operations of Liberty Midstates provide gas service to approximately 55,000 customers, spread throughout three separate rate districts in Northeast ("NEMO"), Southeast ("SEMO"), and Western ("WEMO") Missouri. Staff will present three separate sets of accounting schedules and revenue requirements for each of these districts as well as a total Missouri set. Liberty Utilities' Missouri Operations (Liberty Midstates – MO) receive a variety of corporate, administrative and support services from its affiliates and parent corporation, for which the costs are charged to Missouri operations. This process is discussed more fully in the allocation section of this report.

In an effort to identify the various operating divisions of Liberty Midstates and reduce the potential for confusion, Staff, in its Direct filing, will refer to the operating units as follows:

Algonquin Power and Utilities Corp – "APUC"

Liberty Utilities Service Corp – "LUSC"

Liberty Utilities (Canada) Corp. – "LUC"

Liberty Utilities Co. – "LUCo"

Liberty Utilities (Midstates Natural Gas) Corp. – "Liberty Midstates"

Liberty Utilities (Missouri Water) LLC – "Liberty Utilities"

Liberty Midstates (Missouri only) – "Liberty Midstates – MO"

Liberty Midstates - MO Northeast Operations - "NEMO"

Liberty Midstates - MO Southeast Operations - "SEMO"

Liberty Midstates - MO Western operations - "WEMO"

III. Test Year/True-Up Period

A test year update period reflects any material, known and measurable changes to Staff's case at a future date near the conclusion of Staff's audit. In contrast, true-ups are updates of major elements of a utility's revenue requirement beyond the end of an ordered test year and update period. True-ups are not required for every rate proceeding, and typically are only ordered when it can be demonstrated that material changes to the revenue requirement will likely occur after the end of the ordered update period within a period close enough to the operation-of-law date in the case to allow for a review and verification of these known changes.

The ordered test year for this case is the twelve months ending June 30, 2017. The test year update period ordered for this case is the six months ending December 31, 2017. Staff also recommends at this time that a true-up audit be performed through March 31, 2018, to address all significant known and measurable changes that occur with regard to Liberty Midstates' known and measurable revenues, rate base and expense items.

Staff Witness/Expert: Michelle A. Bocklage

IV. Staff's Revenue Requirement Recommendation

Staff recommends increases an increase of $ 1,292,380 to Liberty Midstates - MO's base rates, and that the Company's ISRS be reset to zero. Staff recommends a return on equity (ROE) of 10.0%, which is the high-end of Staff's recommended ROE range of 9.5% to 10.0%. Staff's recommended increase by rate district is summarized below:

NEMO	$474,990
SEMO	$635,395
WEMO	$181,995

Staff Witness/Expert: Michelle A. Bocklage

V. Surveillance Reporting

Presently Liberty Midstates - MO does not provide Staff with surveillance information. As part of this rate case, Staff requests that Liberty Midstates - MO provide surveillance and actual earnings information related to their natural gas operations. Staff has had discussions with Company personnel regarding their allocations methodology and how requested surveillance information will help Staff monitor the level of allocations that Missouri is receiving. In the event that Staff cannot reach an agreement with Liberty Midstates - MO regarding the proposed surveillance reporting, Staff requests that the Commission order Liberty Midstates - MO to provide reporting information on a quarterly basis. Staff requests that the provision of surveillance information begin for the first quarter of January 1, 2019.

Specifically, Staff requests that Liberty Midstates - MO provide a complete Midstates level and Corporate (8850) level general ledger, and complete subledgers, as well as all allocations "billing" reports with all supporting transactional detail, consistent with FERC USOA requirements, that includes all income statement and balance sheet transactions by month by FERC account; including all transactions occurring between Liberty Midstates' divisions and all other affiliated entities, both regulated and unregulated. In addition, Staff also requests that Liberty Midstates - MO provide an actual earned return on equity report, similar to the Fuel Adjustment Clause (FAC) quarterly surveillance reporting that is currently required of electric utilities pursuant to 4 CSR 240-3.161(6). Staff is seeking a report that is consistent with actual earned ROE reporting that is provided on a quarterly basis by Union Electric Company, d/b/a Ameren Missouri. This information would greatly assist Staff with monitoring actual earned ROE in between Liberty Midstates - MO's rate cases and allow Staff to better inform the Commission in certain circumstances where Liberty Midstates - MO's earnings may need to be reviewed in more detail. Given that Liberty Midstates - MO typically has filed rate cases in intervals that are three years or longer, and in light of the recent acquisition of Empire and continued future acquisition activity, the surveillance data will assist Staff in monitoring Liberty Midstates - MO's earnings during these intervals. In addition, this would reduce the burden of providing many years of this data in the context of a rate case. Staff will endeavor to work with Liberty Midstates - MO to explain exactly the surveillance information being requested.

Staff Witness/Expert: Lisa M. Ferguson

VI. Rate of Return (ROE, Cost of Capital, Capital Structure)

A. Staff's Positions

1. <u>Return on Equity (ROE)</u>

Based on my rate-of-return analyses and consideration of the Commission's recent decision in the Spire Missouri Inc. rate cases, I recommend that the Commission set the Company's return on equity ("ROE") at 10% (based on a range of 9.5% to 10%), resulting in an overall rate of return ("ROR") of 6.76% (range of 6.56% to 6.76%). My recommended ROE provides the Company with a fair and reasonable opportunity to earn at least its cost of common equity ("COE") in view of the fact that my analyses show that the COE for gas utilities is most likely in the range of 6% to 7%.

2. <u>Capital Structure</u>

I also recommend that the Commission use LUCo's adjusted actual capital structure of 40.43% equity and 59.57% debt for purposes of setting Liberty Midstates' allowed ROR because this capital structure is that which is used to finance LUCo's United States' regulated utility assets, including that of Liberty Midstates.[1] Staff considered several other different capital structures, which I will discuss in much more detail in my Detailed Direct Testimony attached as Appendix 2 to this Report.

[1] Calculated with short-term debt removed.

3. Cost of Debt

Consistent with my capital structure recommendation, I also recommend that the Commission use LUCo's embedded cost of debt, 4.51%, which includes debt transferred to intermediate holding companies, but which debt is still used for investment in LUCo's assets, resulting in an overall ROR of 6.76%.

B. Analytical Principles:

1. The Cost of Equity vs. the Authorized ROE

I will intentionally differentiate between the market-determined cost of equity ("COE") and the allowed ROE because it is clear from my continuous and regular review of utility stock investment analyses that equity analysts use a COE, i.e. discount rate, to value utility stocks that is much lower than average ROEs allowed by state utility regulatory commissions.[2]

2. Benchmarking

The Commission recently awarded an ROE of 9.8% to Spire Missouri in its rate cases. However, because of differences in the capital structure of Liberty Midstates intermediate parent company, LUCo, and that of Spire Missouri, 9.8% is **not** an appropriate ROE for Liberty Midstates. Instead, the ROE allowed for Liberty Midstates should be increased by 20 basis points to 10%. If the Commission chooses to adopt a capital structure for Liberty Midstates that is similar to the one it recently adopted for Spire Missouri, however, then 9.8% would be an appropriate allowed ROE for Liberty Midstates.

3. A Comparative Analysis is Required

The comparative nature of the applicable constitutional parameters requires that Staff's recommendation regarding Liberty Midstates' allowed ROE be based on Staff's analysis of a proxy group of natural gas utility companies of similar business and financial risk characteristics to Liberty Midstates. I have used the same proxy group used in the Spire Missouri rate cases. To develop my recommendation, I have analyzed macroeconomic environment changes, broader debt and equity capital market changes, and changes in valuation levels and cost of equity

[2] The cost of common equity is the return required by investors, determined by expert analysis of market data relating to a carefully-constructed group of proxy companies. The allowed ROE, on the other hand, is the value selected by the Commission for use in calculating a utility's forward-looking rates for implementation at the end of the rate case.

estimates for this proxy group. For specific cost-of-equity estimates for the proxy group, I relied upon the Discounted Cash Flow ("DCF") and the Capital Asset Pricing Model ("CAPM"), two well-recognized and widely-used tools of financial analysis.

C. Economic and Market Conditions:

1. Gross Domestic Product and the Debt Market

In setting utility rates, the Commission should be mindful of the condition of the economy and the markets. Real Gross Domestic Product ("GDP") increased by 2.3% for the 2017 calendar year. 10-Year Treasury rates increased by approximately 40 basis points in January 2018, to level not reached since April 2014. It is not yet clear whether this increase will be sustained or whether rates will return to their previous levels or lower. Utility bond yields have not increased in similar fashion. The average utility bond yield based on the Moody's public utility bond index for January 2018 was 3.88%, compared to 4.29% a year ago. As compared to 2014, when average allowed ROEs for gas utilities were 9.6%, utility bond yields are 35-45 basis points lower. In summary, while US Treasury yields increased during January 2018, utility debt markets imply there has not been much of a change in utility capital costs over the last few months. If anything, the cost of equity may be slightly higher now.

2. The Stock Market

Until recently, utility stocks had been outperforming the S&P 500, due to several years of sustained low interest rates. However, the broader markets significantly outperformed the utility markets during January 2018. While the contraction of utility stocks during the last couple of months is due to an increase in utility cost of equity, nonetheless, it is widely recognized that utility stocks were trading at or near all-time highs in the fall of 2017, meaning that the cost of equity to utilities was at all-time lows. The actual cost of equity capital to utility companies has been in the 6% to 7% range. While utility equity analysts certainly didn't expect commissions to reduce allowed ROEs to a point where they would be at parity with the cost of equity, they do expect the spread to eventually compress either due to an increase in the cost of equity, a reduction in allowed ROEs, or a combination of both. Even with the recent contraction in stock prices, utility stocks are still trading at higher p/e ratios than they were for much of 2014, which implies that the Commission should not allow an ROE for Liberty Midstates that is any higher than that which it authorized Spire Missouri in its recent rate cases. In summary, observable trends in the utility equity markets indicate that the Commission should not increase allowed ROEs above recent levels, assuming similar levels of financial risk.

D. Capital Structure

1. <u>Credit Rating</u>

In determining the appropriate capital structure to use, the Commission must be mindful that Liberty Midstates is part of a large and complex corporate family. Liberty Midstates does not independently issue debt to investors. APUC has indicated in several investor presentations that its intent on a going-forward basis is to issue debt for its regulated United States' subsidiaries through LUF, with this debt being guaranteed by LUCo. APUC, the ultimate owner of Liberty Midstates, is rated by both S&P and DBRS (a Canadian-based rating agency). LUCo is indirectly rated by S&P and DBRS via its financing subsidiary, LUF. LUF is assigned the credit rating because it directly issues the debt on behalf of LUCo, but the rating is based on S&P's and DBRS' assessment of LUCo's credit profile because LUCo guarantees all of the debt issued by LUF. S&P rates APUC's family of companies, which includes Liberty Power, based on APUC's consolidated credit profile.

Consistent with this approach, all of APUC's companies' corporate credit ratings are the same, which is currently a 'BBB' rating. S&P's ratings on APUC are based on its assignment of a "strong" business risk profile and a "significant" financial risk profile. DBRS, which the Commission isn't familiar with other than through previous rate cases involving LUCo, such as Liberty Midstates' last rate case in 2014, approaches the ratings it assigns to APUC and LUCo much the same way as Moody's. DBRS does give consideration to LUCo's stand-alone business risk and financial risk when it assigns LUCo's financing subsidiary, LUF, a credit rating of BBB (high).

2. <u>Capital Structure</u>

Staff recommends using LUCo's adjusted actual capital structure because this reflects the financial risk APUC has determined is reasonable for purposes of financing its regulated utility assets in the United States. APUC's financing strategy for LUCo has changed since the 2014 rate case, which is why it is no longer appropriate to accept LUCo's unadjusted per books capital structure as being representative of how LUCo's regulated utilities are actually capitalized. Staff's examination of LUCo's notes to financial statements, rating agency reports and data request responses revealed that LUCo's per books balance sheet as of September 30, 2017, **understates** the amount of leverage used to support LUCo's investments. Approximately $395 million of debt is held at intermediate subsidiaries between APUC and LUCo for purposes of making equity infusions in LUCo. This debt is guaranteed by LUCo.

After making various adjustments to LUCo's capital structure, LUCo's September 30, 2017, capital structure (including short-term debt) was as follows: 39.25% common equity, 57.83% long-term debt and 2.92% short-term debt. If short-term debt is removed from the capital structure then the common equity ratio would be 40.43% with the remaining 59.57% being long-term debt. Staff does not recommend adopting APUC's capital structure and associated capital costs for purposes of setting the allowed ROR for Liberty Midstates' Missouri assets. APUC's per books capital structure had been more leveraged recently than LUCo's unadjusted per books capital structure because of financing activities related to the Empire transaction. However, as of September 30, 2017, APUC's balance sheet reflected approximately 45% equity.

3. Embedded Cost of Debt

I recommend that the Commission match LUCo's consolidated embedded cost of debt to that of LUCo's adjusted actual capital structure. LUCo's consolidated embedded cost of long-term debt was 4.51% as of September 30, 2017. In comparison, Spire Missouri's embedded cost of debt was approximately 4.12%.

E. Cost of Equity

1. Start with the recent Spire Missouri decision

The Commission can benchmark its decision in this case based on its decision in the recently concluded Spire Missouri rate case. The Commission decided an allowed ROE of 9.8% was fair and reasonable for purposes of setting Spire Missouri's allowed ROR. However, Spire Missouri's stand-alone credit profile ("SACP") is consistent with an 'A' rating as specified by S&P if it were to rate Spire Missouri based purely on its business and financial risk.[3] Liberty Midstates does not issue its own debt and it is not rated. Therefore, there is no rating agency assessment as to what its SACP may be. In such situations, it is best to evaluate the

[3] "Summary: Laclede Gas Company," S&P RatingsDirect, July 19, 2017.

SACP of the subsidiary that is responsible for the debt financing for the utility operations. In this case, that company is LUCo. LUCo has a SACP of 'BBB' (high) as specified by DBRS. This SACP is based on DBRS' assessment of both LUCo's business risk (its regulated utility assets) and its financial risk (its capital structure that is more aggressive in its use of leverage). Recent spreads between 'A' rated and 'Baa' rated utility bonds have been approximately 30 basis points. Because this is a tangible and objective measure of a cost-of-capital spread, Staff suggest that 2/3 of this spread be added to the Commission's recent allowed ROE of 9.8% for Spire Missouri in order to adjust for LUCo's higher SACP that is due mainly to its more leveraged capital structure.

2. The Proxy Group

I estimated Liberty Midstates' COE by applying COE methodologies to the same proxy group recently used in the Spire Missouri rate cases. While I continue to estimate a much lower cost of common equity than average allowed ROEs around the country, my recommended allowed ROE is based on my assessment of a fair and reasonable allowed ROE based on the Commission's most recent decision, changes in the capital markets since that decision, and whether the potential allowed ROE spread over the cost of equity spread is consistent with market expectations.

3. DCF Analysis

In the DCF method, the cost of equity is the sum of the dividend yield and a perpetual growth rate that is intended to replicate the projected capital appreciation of the stock. The projected average dividend yield for the proxy group of five comparable companies is approximately 2.70%. Investors invest in utility companies for yield and not growth. Companies in the S&P 500 in recent years have retained approximately 65% of their earnings for reinvestment, while natural gas utilities' retention ratio has been approximately 35% over the same period. It follows that utilities will grow at a rate less than that of nominal GDP growth. Consequently, a projected long-term, steady-state nominal GDP growth rate should be considered as an upper constraint when testing the reasonableness of growth rates used to estimate the cost of equity for a regulated gas utility. Most economists do not project nominal GDP to grow much higher than 4.5% per year over the long-term, so serious doubt must attach to a constant growth rate for the gas utility industry that is above the upper constraint.

Equity analysts project a compound annual growth rate in earnings per share over the next five years of approximately 5%. However, based on actual historical growth over the long-term, this growth rate is not sustainable over a longer period, let alone for infinity as assumed in the constant-growth DCF.

4. __The Growth Rate__

An analysis of growth in the natural gas distribution industry since 1968 revealed that the actual realized growth has averaged in the 4% to 4.5% range, or about 66% of average GDP growth of around 6.5% over the same period. Additionally, the growth in the natural gas distribution industry was not highly correlated with GDP growth over this period. In fact, empirical evidence shows that natural gas distribution utility growth has had very little correlation to that of GDP. With respect to future growth, energy consumption has been declining. The other factors that often determine potential growth for the regulated gas distribution industry are investment and demand/customer growth. Because most regulated natural gas distribution companies have moved to largely decoupled rate designs in which the recovery of the revenue requirement is not a function of usage, but number of customers, the other major factor should be limited to expansion of the system to serve additional customers. There is a higher correlation between capital spending and industry growth then there is between GDP and industry growth. The current rise in capital expenditures is not driven by expected growth in the economy, but in the perceived need to accelerate capital expenditures for infrastructure replacement.

5. __Staff's DCF Results__

Historically, the gas distribution industry only achieved growth in the low 4.2% to 4.6% even during a period of high capital investment and higher average economic growth of 6.54%. Therefore, a constant-growth rate closer to 4% is more logical considering that projected growth rates for the U.S. economy are much lower in the future as compared to the period I analyzed (1968-2016). In order to give some consideration to some of the higher near-term expected growth rates, especially in DPS rather than EPS, I used a growth rate range of 4.2% to 5.0%. This results in a cost of equity estimate of 6.90% to 7.70%, which is equivalent to Staff's estimate in the Spire Missouri rate case. While I understand that my COE estimate is much lower than the average allowed ROEs for gas utility companies in the country, it is quite consistent, if not on the high side, compared to COE estimates used by equity analysts that follow APUC. Being that APUC has more business risk than LUCo's regulated utility operations, the cost of equity assigned to APUC is higher than what would be appropriate for LUCo's regulated utility assets, including Liberty Midstates.

F. Tests of Reasonableness

1. The Capital Asset Pricing Model (CAPM)

Staff used the CAPM to test the reasonableness of its recommendation. The average beta for the proxy group was 0.69 as compared to 0.71 in the Spire Missouri rate case.[4] For the market risk premium (Rm – Rf) estimates, I relied on the historical difference between earned returns on stocks and earned returns on bonds. The first risk premium was based on the long term arithmetic average of historical return differences from 1926-2016 (6.00%). The second risk premium was based on the long-term geometric average of historical return differences from 1926 to 2016 (4.50%). The results using the long-term arithmetic average risk premium and the long-term geometric risk premium are 6.91% and 5.89%, respectively. This compares to CAPM results for arithmetic and geometric averages of 7.14% and 6.08%, respectively in the recent Spire Missouri rate cases. Although this implies a decline in utilities' COE, Staff used the same equity risk premium as in the last case. Considering the recent volatility in broader markets since the end of January, the equity risk premium has increased. The fact that the betas declined since Staff did its analysis for the Spire Missouri case is explained by the fact that broader markets have experienced much greater volatility in the past month.

2. Average Authorized Returns

In the past, the Commission has applied a test of reasonableness using average authorized returns published by Regulatory Research Associates (RRA) to test the reasonableness of its allowed ROE. According to RRA, the average authorized return on equity for gas utilities for 2017 was 9.72% (based on 24 ROE determinations), compared to 2016's calendar year average of 9.54% (based on 26 ROE determinations). The average allowed ROE for fully-litigated cases for 2017 was 9.89% (7 decisions). Allowed ROEs for fully-litigated cases were 9.61% for the 2016 calendar year.

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[4] Same proxy group; betas had declined.

G. Conclusion

A just and reasonable rate is one that is fair to the investors and fair to the ratepayers. Fairness to the ratepayers means rates that are not one penny more than is necessary to be fair to the shareholders. Fairness to the shareholders means rates that will produce revenues, on an annual basis, sufficient to cover the Companies' prudent cost of service, which includes an allowed ROR. Using widely-accepted methods of financial analysis and reviewing Wall Street equity analysts' research shows that the COE for gas distribution companies is conservatively around 7%. However, since I have provided this information in past rate cases, including the recent Spire Missouri rate case in which the Commission decided an allowed ROE of 9.8% was fair and reasonable, I recommend the Commission focus on whether LUCo's more leveraged capital structure justifies a different authorized ROE.[5] I suggest that the more leveraged capital structure justifies an increase to the allowed ROE of 20 basis points.

Based on all the foregoing, it is my considered professional opinion that an authorized ROE for Liberty Midstates of 10% (range of 9.5% to 10%) would be reasonable if it is applied to LUCo's lower actual equity ratio. Given that the cost of capital is as real a cost as any other cost of service, reducing this cost in the ratemaking formula to a value closer to its actual cost is consistent with the principles of cost-of-service ratemaking. Using my recommended allowed ROE results in an allowed ROR for Liberty Midstates of 6.76% (range of 6.56% to 6.76%). This rate was calculated by applying an embedded cost of long-term debt of 4.51% and an allowed ROE of 10% to a capital structure consisting of 40.43% common equity.

Staff Witness/Expert: David Murray, CFA

VII. Rate Base

A. Plant in Service and Depreciation Reserve

Staff's plant-in-service reflects by account Liberty Midstates - MO's plant-in-service balances for Missouri gas operations at December 31, 2017. In addition, Staff has also reflected corporate allocated plant-in-service which includes items such as billing software, furniture, and other corporate investment related overhead.

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[5] "More leveraged" means that it includes more debt and, consequently, more financial risk since debt is paid before equity.

Staff has reflected depreciation reserve balances by account through December 31, 2017 in its cost of service calculation. These depreciation reserve balances also include all corporate allocated depreciation reserve balances associated with corporate investment that is appropriately allocated to Liberty Midstates - MO. Staff made no adjustment to these corporate allocated amounts.

Staff Witness/Expert: Christopher D. Caldwell

1. <u>Erroneous Plant-In-Service Postings</u>

During Staff's review of plant-in-service balances, it was discovered that several erroneous postings to Liberty Midstates – MO's property records that existed in the prior rate case were never removed from their property records. Staff has posted adjustments to remove these erroneous postings from the cost of service calculation. Staff also recommends that the Commission require Liberty Midstates – MO to record correcting entries to remove these erroneous plant amounts from its property records.

Staff Witness/Expert: Lisa M. Ferguson

2. <u>Erroneous Depreciation Reserve Postings</u>

During Staff's review of Liberty Midstates – MO's depreciation reserve balances, it was discovered that several erroneous postings to Liberty Midstates – MO's property records that existed in the prior rate case were never removed from their property records. Staff has posted adjustments to remove these erroneous postings from the cost of service calculation in this case. Staff also recommends that the Commission require Liberty Midstates – MO to record correcting entries to remove these erroneous depreciation reserve amounts from its property records.

Staff Witness/Expert: Lisa M. Ferguson

B. Automated Meter Read (AMR) Devices

Liberty Midstates - MO plans to install approximately 48,000 AMR devices on the meters in its service territory by March 31, 2018, the end of the ordered true-up period for this case. These installations are part of a greater corporate initiative to install AMR and AMI meter technology in its service territory. The Company would like to leverage this new technology to reduce internal costs. As of Staff's direct filing, Liberty Midstates – MO has installed 18 AMR devices on meters in its southeast Missouri (SEMO) territory and 5,356 AMR devices on meters in its northeast Missouri (NEMO) territory, which includes the approximately 5,000 AMR devices that had been installed about a year to a year and a half ago near Canton, MO. As of December, 31, 2017, Liberty Midstates - MO has not installed the remaining meters in its NEMO, SEMO, and WEMO territories. Staff will continue to monitor the Company's activity and will address this issue as part of its true up audit.

Staff Witness/Expert: Lisa M. Ferguson

C. Capital Reliability Tracking Mechanism Proposal

In his direct testimony, Liberty Midstates - MO's witness Timothy S. Lyons proposes a capital reliability tracking mechanism that would establish a regulatory asset designed to capture a deferral of all carrying costs associated with incremental capital spending that is not included in base rates in a rate case. Staff does not support Mr. Lyons' proposed capital reliability tracking mechanism and will fully address this proposed tracker as part of rebuttal testimony that will be filed on April 13, 2018.

Staff Witness/Expert: John P. Cassidy

D. Cash Working Capital (CWC)

Cash Working Capital (CWC) is the amount of funding necessary for a utility to pay day-to-day expenses incurred in providing utility services to its customers. Cash inflows from payments received by the utility and cash outflows for expenses incurred by the utility are analyzed using a lead/lag study.

When a utility expends funds to pay expenses necessary for the provision of service before receiving payment from its customers, the utility's shareholders are the source of the funds. The funding from shareholders represents a portion of each shareholder's total investment in the utility. To compensate shareholders for this funding, an amount for CWC is included in rate base. Alternatively, customers supply funds to the utility when they pay for services before the utility expenses are incurred in providing that service. Utility customers are compensated for the funds they provide by a reduction to the utility's rate base.

Staff typically performs a lead/lag study to determine the amount of cash working capital provided by ratepayers and by shareholders. The CWC requirement can be negative or positive. If the requirement is negative, it indicates that the utility's customers are providing the CWC for the test year, which indicates customers paid for the utility's expenses before the Company incurred them. Under this circumstance, CWC would represent a reduction to rate base. A positive CWC requirement indicates that the utility pays its expenses before receiving payment from the customers, which means that the shareholders are providing the funds. In this instance, CWC would represent a rate base addition.

As part of a stipulation and agreement in its previous rate case, Case No. GR-2014-0152, Liberty Midstates - MO agreed to perform a lead/lag study in its next general rate case and provide the results as part of its next rate case filing.. In the course of completing its lead/lag study, Staff reviewed the lags calculated by Liberty Midstates - MO witness Timothy S. Lyons for accuracy and reasonableness. Staff adopted many of the lags calculated by Mr. Lyons, but recommends using different lags for the collection lag and cash voucher lag, as discussed in more detail below. Additionally, as part of its true-up audit, Staff anticipates that an adjustment to the billing lag will be necessary, following the installation of AMR devices throughout Liberty Midstates' Missouri service territory. Staff is also proposing separate expense lags for incentive compensation and 401k expenses, as noted below. Liberty Midstates - MO did not include separate lags for incentive compensation or 401k expenses in its lead/lag study.

The test year accounts receivable data used in the calculation of the collection lag for the WEMO district contained an abnormally large receivable ** __________________ **. This abnormality inflates the collection lag while using the accounts receivable turnover ratio[6] to calculate the lag. Staff has made an adjustment to remove the abnormality from the calculation of the collection lag for the WEMO district.

Additionally, because at any given time a utility's accounts receivable will contain some customer billings that will at some later time be written off as uncollectible or "bad debt," Staff made an adjustment to remove bad debt from the calculation of collection lag. As bad debt expense is treated as a separate annualized expense, Staff's position is that bad debt should not be included in the calculation of collection lag. Therefore, Staff made an adjustment to remove an average of the monthly bad debt that was included in the monthly accounts receivable balance. Finally, the SEMO, WEMO, and NEMO districts are separate rate districts with

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[6] The accounts receivable turnover is the number of times per year that a business collects its average accounts receivable.

different demographics and payment practices; therefore Staff has calculated separate collection lags for each of the three rate districts.

While reviewing the data Liberty Midstates - MO used to calculate the cash voucher lag, Staff determined that several of the invoices were for payments for the Iowa and Illinois districts of Liberty Midstates. Staff performed its own calculation of cash voucher lag, using a stratified sample approach utilizing 200 invoices of a total of 5904 invoices paid during the test year. The overall expense lag was then calculated using a weighted approach similar to that used by Liberty Midstates - MO witness Timothy S. Lyons.

Liberty Midstates - MO is in the process of installing automatic meter readers ("AMRs") which could reduce the actual lag time associated with meter reading. However, the vast majority of the AMR devices are not currently installed. Currently, only approximately 5,000 AMR devices have been installed in the NEMO rate district. Liberty Midstates - MO has indicated that it will install nearly all of the AMR devices by the March 31, 2018, true-up cutoff in this rate proceeding. Upon completion of the installation of these AMR devices, Staff would anticipate that Liberty Midstates - MO will experience significant reduction in time related to the billing lag. Staff has not reflected an adjustment to the billing lag as part of its direct filing, since the vast majority of AMR devices have not been installed. However, if these devices are installed by the March 31, 2018, true-up cutoff date, Staff will include an adjustment to reduce the billing lag in order to take into account the benefit of this metering technology.

Staff calculated a separate lag for the incentive compensation/bonus payments using the time elapsed between the midpoint of the service date and the date on which the payments were made in the test year.

The 401k expense lag was calculated using the time elapsed between the midpoint of the service date and the date when the payments were made in the test year.

As noted in the Prepayment section of the Cost of Service Report, Staff has included the PSC assessment in its calculation of CWC and excluded the amounts from prepayments.

Staff Witness/Expert: Jason Kunst, CPA

E. Stored Natural Gas Inventories

Natural gas inventory is cyclical in nature, in that gas inventory volumes increase throughout the summer as gas is injected into storage, then decrease throughout the winter as gas is withdrawn or consumed. This natural gas inventory stored underground represents an investment by Liberty Midstates - MO. Therefore, it is included in rate base which allows Liberty Midstates - MO an opportunity to earn a return on its investment.

A 13-month average of month ending total costs is used to account for the fluctuation in inventory levels over time. Therefore, Staff included as an addition to rate base a 13-month average of the combined inventory quantities and corresponding prices for gas storage inventory levels using the month-ending balances during December 2016 through December 2017.

Staff Witness/Expert: Christopher D. Caldwell

F. Prepayments

Liberty Midstates - MO utilizes shareholder funds for prepaid items such as insurance premiums. Including prepayment balances in rate base provides appropriate ratemaking treatment for these items since the utility is required to provide upfront funding.

During the course of Staff's review of prepayment amounts, Staff discovered that Liberty Midstates - MO made payments in advance to the Missouri Economic Development Association (MEDA) and included them within the prepayment balances. Staff removed the prepayment amounts related to MEDA because payments to this organization represent lobbying costs and should not be charged to Liberty Midstates - MOs' ratepayers. Additionally, Liberty Midstates - MO included the PSC Assessment in prepayments as well as in its payment lag calculation as part of its overall calculation of cash working capital. Prepayments and cash working capital are both additions to rate base that allow Liberty Midstates - MO to earn a return on them. It is Staff's position that it is inappropriate to include the PSC assessment in both calculations; therefore, Staff has excluded the PSC assessment from the calculation of prepayments, but included it in Staff's cash working capital analysis.

Staff included a level of prepayments in rate base that reflects a 13-month average ending December 31, 2017. Staff allocated the 13-month average prepayment balance to each Liberty Midstates - MO rate division: WEMO, SEMO, and NEMO based upon appropriate rate district allocation factors.

Staff Witness/Expert: Christopher D. Caldwell

G. Customer Deposits

Staff's inclusion for customer deposits in rate base reflects a 13-month average ending December 31, 2017. Customer deposits are funds received from the utility company's customers as security against potential loss arising from customer's failure to pay for utility service. Until refunded, customer deposits represent a source of funds available to the company, and are included as an offset to the rate base investment. Generally, interest is calculated on customer deposits and paid to customers for the use of their money. Please refer to the Income Statement, Interest on Customer Deposits section of the report for an explanation of the calculation of interest on customer deposits.

Staff Witness/Expert: Christopher D. Caldwell

H. Interest on Customer Deposits

Liberty Midstates - MO's tariff requires that interest on customer deposits shall be paid on a per annum rate equal to the prime bank lending rate plus one percentage point as published in The Wall Street Journal for the last business day of the preceding calendar year, compounded annually. The Staff determined that the applicable published rate on December 29, 2017 was 4.5%. Staff added one percentage point and applied the 5.5% rate to the 13 month average of customer deposits at December 31, 2017. This annual level of interest on customer deposits was included as an expense in the Staff's cost of service calculation.

Staff Witness/Expert: Christopher D. Caldwell

I. Customer Advances

Customer advances are funds provided to the company by individual customers to partially reimburse the cost of providing their individual service. Like customer deposits, customer advances are available to the utility for general use. Unlike customer deposits, no interest is paid to customers for the use of this money. Since these funds represent interest-free money to the company, it is appropriate to include these funds as a reduction, or offset, to rate base in order to ensure that the utility does not earn a return on the value of the level of advances. In its direct filing, Liberty Midstates - MO included an adjustment to remove un-refunded amounts from customer advances balances because these amounts were applied as an offset or reduction to plant-in-service. Staff has also reflected these same adjustments in calculating the level of customer advances to include in rates. Staff included an adjusted level of customer advances, as described above, that reflects a 13-month average ending December 31, 2017.

Staff Witness/Expert: Christopher D. Caldwell

J. Energy Efficiency Regulatory Asset – Rate Base

Staff has included two energy efficiency regulatory asset balances in rate base. The first energy efficiency regulatory asset balance reflects the December 31, 2017 unamortized portion of the energy efficiency regulatory asset that was established in Liberty Midstates - MO's Case No. GR-2014-0152. The second energy efficiency regulatory asset balance represents all eligible energy efficiency spending that has occurred between the March 31, 2014 cut-off in the prior rate case through the December 31, 2017 update period in the current rate case and that is over and above the $150,000 annual amount of energy efficiency and low income weatherization level that was included in rates in Case No. GR-2014-0152. Staff would note that it excluded approximately $17,000 from the energy efficiency regulatory asset balance proposed by Liberty Midstates - MO in its December 31, 2017 update workpapers. Staff excluded this amount from the regulatory asset balance to be established in this rate case in order to prevent a double recovery, because this amount is already included in the regulatory asset balance that was established in the prior rate case.

Staff's proposed treatment for these two regulatory asset balances is consistent with the terms of the *Revised Partial Stipulation and Agreement As to Certain Issues* in Liberty Midstates - MO's prior rate case, Case No. GR-2014-0152. It is also consistent with the accounting treatment that was described in the *Unanimous Stipulation and Agreement* in the Atmos Energy Corporation rate case, Case No. GR-2010-0192 and that was continued by the aforementioned agreement that was reached in Case No. GR-2014-0152. Staff will update both of Liberty Midstates - MO's regulatory balances at March 31, 2018, as part of its true-up audit.

Staff Witness/Expert: John P. Cassidy

K. Pensions – Rate Base – Regulatory Asset / Liability

The Commission approved a *Partial Stipulation and Agreement As To Certain Issues* in Liberty Midstates - MO's prior rate case, Case No. GR-2014-0152. As part of that agreement Liberty Midstates - MO was required to record as a regulatory asset or liability, as appropriate, the difference between pension expense included in rates and the amount of funded pension expense as recorded for financial reporting purposes. No witness for Liberty Midstates - MO addressed this issue in direct testimony nor was an amount reflected on a rate base schedule workpaper that was provided with direct testimony. If Liberty Midstates - MO intends to seek rate recognition of a pension regulatory asset/liability in this proceeding, Staff requests that Liberty Midstates - MO provide support for the existence and quantification of this item to Staff by no later than March 21, 2018, so that this issue can be addressed in the technical/settlement conference scheduled for April 3, 2018.

Staff Witness/Expert: John P. Cassidy

L. Other Post Employment Benefit Costs (OPEBs) – Rate Base – Regulatory Asset / Liability

The partial stipulation and agreement in the prior rate required Liberty Midstates - MO to record as a regulatory asset or liability, as appropriate, the difference between OPEB expense included in rates and the amount of funded OPEB expense as recorded for financial reporting purposes. No witness for Liberty Midstates - MO addressed this issue in direct testimony nor was an amount reflected on a rate base schedule workpaper that was provided with direct testimony. If Liberty Midstates - MO intends to seek rate recognition of an OPEBs regulatory asset/liability in this proceeding, Staff requests that Liberty Midstates - MO provide support for the existence and quantification of this item to Staff by no later than March 21, 2018, so that this issue can be addressed in the technical/settlement conference scheduled for April 3, 2018.

Staff Witness/Expert: John P. Cassidy

M. Accumulated Deferred Income Taxes (ADIT)

Liberty Midstates - MO's deferred tax reserve represents, in effect, a net prepayment of income taxes by the company's customers in rates prior to actual payment to the taxing authorities by Liberty Midstates - MO. For example, because Liberty Midstates - MO is allowed to deduct, from taxable income, depreciation expense on an accelerated basis for income tax purposes, depreciation expense used for income taxes paid by Liberty Midstates - MO is considerably higher than depreciation expense used for rate making purposes. This results in what is referred to as a "book-tax timing difference," and creates a deferral of income taxes to be paid in the future by the Company. The net credit balance in the deferred tax reserve represents a source of cost-free funds. Therefore, Liberty Midstates - MO's rate base is reduced by the deferred tax reserve balance to avoid having customers pay a return on funds that are provided cost-free to the company. Since the expense recognized for depreciation is considerably lower for accounting and ratemaking purposes than for income tax purposes, Liberty Midstates – MO customers are required to pay higher costs for income taxes in rates than each division will actually pay to the IRS. The difference in income tax paid to the IRS and those paid in utility rates are "accumulated" to recognize the future tax liability that will eventually be paid to the IRS. While Liberty Midstates - MO has retained these tax deferrals, they will be used as an offset to rate base.

On December 22, 2017, President Trump signed into law the US Tax Cuts and Jobs Act ("TCJA") which took effect on January 1, 2018. As part of this tax reform, there are several impacts to the energy sector; many of which may or may not be fully known at this time due to the infancy of this change in process. There is, however, a known impact on Liberty Midstates - MO's ADIT balances from the TCJA because the deferred taxes reflected on Liberty Midstates - MO's books through December 31, 2017, were calculated assuming a 35% federal tax rate. These recorded deferred taxes were in effect a prepayment of income tax, creating interest free funds that the Company can use. For that reason, as discussed above, the net balance of ADIT is reflected in utility cost of service as a reduction to rate base. However, any deferred taxes generated beginning January 1, 2018, will be recorded at the new 21% tax rate. In addition, any deferred taxes remaining on Liberty Midstates - MO's books that were recorded by Liberty Midstates – MO assuming a 35% federal corporate tax rate will actually be paid by Liberty Midstates – MO under the new 21% federal corporate tax rate. This means that Liberty Midstates - MO's accumulated deferred tax reserves are now overstated, and the excess deferred tax amount (the difference between the deferred tax amounts calculated using a 35% rate and a 21% rate) should be flowed back to customers in rates as a reduction to cost of service over time. The timing of the amortization for the flow back of these deferred taxes is determined by the extent to which the deferred taxes are considered protected and unprotected. The protected ADIT is associated with accelerated depreciation tax timing differences while the unprotected ADIT is associated with tax timing differences other than from accelerated depreciation deductions. Staff's understanding is that the protected ADIT must be flowed back to customers in rates no quicker than over the estimated average remaining life of the assets that created the ADIT under current tax normalization requirements. Liberty Midstates - MO is currently trying to determine the correct amortization period for the flow back of protected excess ADIT. Staff believes that the flow back of excess deferred taxes should be included in this rate case if possible, and Staff will endeavor to work with the Company during the pendency of this rate proceeding to calculate a quantification of these deferred taxes as well as an appropriate amortization period of which to flow back to customers.

Staff has included a balance of accumulated deferred taxes in rate base for Liberty Midstates - MO as of December 31, 2017. This item will be reviewed and updated in the true-up audit at March 31, 2018.

Staff Witness/Expert: Lisa M. Ferguson

N. Rate Base Offset GM-2012-0037

As part of the Stipulation and Agreement that was approved by the Commission in Liberty Midstates - MO's acquisition of Atmos Energy Corporation assets and operations in Case No. GM-2012-0037, Liberty Midstates - MO agreed to a rate base offset intended to prevent a detriment to customers as a result of the transaction. The stipulation required that this rate base offset balance be amortized over ten years beginning on August 1, 2012. Staff has reflected the December 31, 2017, balance of this rate base offset in Staff's cost of service calculation. As part of its true-up audit, Staff will reflect the March 31, 2018, balance of this rate base offset in its cost of service calculation.

Staff Witness/Expert: John P. Cassidy

O. Transition Costs and Transaction Costs

In Liberty Midstates - MO's prior rate case (Case No. GR-2014-0152), Staff removed certain transition and transaction costs from plant-in-service and depreciation reserve that were associated with Liberty Midstates - MO's acquisition of Atmos Energy Corporation's Missouri assets and operations. Liberty Midstates - MO agreed with those adjustments and also agreed to a specific rate base value for each separate rate district that excluded Staff's capitalized transition and transaction costs. As part of its audit conducted in this rate case, Staff discovered that Liberty Midstates - MO has not removed any of the capitalized transition and transaction costs and corresponding depreciation reserve balances from its property records. Therefore, Staff has made adjustments that exclude these prior rate case capitalized transition and transaction plant balances and corresponding depreciation reserve balances that still exist on

Liberty Midstates - MO's books at the end of the December 31, 2017, update period. Staff will update these adjustments to remove balances that exist at the March 31, 2018, true-up cutoff as established by the Commission in this rate case.

Furthermore, Staff has confirmed that no transition or transaction costs that resulted from The Empire District Electric Company acquisition case (Case No. EM-2016-0213) have been assigned to Liberty Midstates - MO and therefore none of those costs are included in the cost of service calculation in this rate case.

Staff Witness/Expert: John P. Cassidy

P. Hannibal Shop

Liberty Midstates - MO is nearing completion of the construction of a new shop located in Hannibal, Missouri. In his direct testimony filed in this rate case, Company witness Michael D. Beatty stated that a new shop in Hannibal was necessary to provide a heat-controlled environment for horizontal directional drilling equipment and a vacuum trailer. Liberty Midstates - MO is seeking recovery of all construction costs associated with this new facility through an inclusion in rate base, where it would receive a return of and return on this investment. The Staff toured the new facility on Tuesday, February 13, 2018. During the tour, Staff observed that the structure had been mostly completed with the exception of the installation of guttering and a few other items. Staff noted that the heating equipment was working and that the Company has been able to store its horizontal direction drilling equipment and vacuum trailer inside the new structure since October 31, 2017. As of February 15, 2018, Liberty Midstates - MO has recorded on its books approximately $116,529 in Construction Work in Progress for all necessary construction costs as well as allowance for funds used during construction amounts that provide carrying costs while the facility is under construction. Liberty Midstates - MO has indicated that the facility should be fully completed prior to the March 31, 2018, true-up cutoff date established by the Commission for this rate proceeding.

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** A copy of the affiliate lease agreement, provided in response to Staff Data Request No. 0044, is attached as Confidential Appendix 3, Schedule JPC-d1 to this Report.

**

** therefore, Liberty Midstates - MO cannot seek recovery for the Hannibal shop in rate base without an acceptable remedy for this situation. It is Staff's position that unless Liberty Midstates - MO provides a reasonable and appropriate solution for the current situation, that the costs associated with the Hannibal shop cannot be included in rate base upon its completion. Staff also recommends that ** ____ ____ ** and that any applicable affiliate transaction rules of the Commission be followed.

Staff Witness/Expert: John P. Cassidy

VIII. Allocations: Upstream Service Affiliates' Ownership, Governance and Corporate/Business Services Costs

A. Introduction and Background

During the historic test year Liberty Midstates received and was charged for ownership, governance, and various corporate/business services provided by five separate upstream service affiliates. A brief description of services provided by each of the five upstream service affiliates is provided in the table below:

Services Provided by Each Upstream Service Affiliate	
Algonquin Power & Utilities Corp ("APUC")	Provides financial and strategic management, corporate governance, and oversight of administrative and support services for all downstream service entities and subsidiaries (i.e., Liberty Power and Liberty Utilities Co.)
Liberty Utilities (Canada) Corp ("LUC")	Provides executive, regulatory strategy, energy procurement, operations, utility planning, administrative and customer experience services. Separate subsets of LUC employees are largely, if not exclusively, dedicated to serving unregulated Liberty Power *or* regulated Liberty Utilities Co. Other employee groups provide services to *both* Liberty Power and Liberty Utilities Co.
Liberty Algonquin Business Services ("LABS")	Provides various business and corporate services to Liberty Power *and* Liberty Utilities Co. – including functions such as IT, HR, procurement, strategic management, financial reporting, treasury, internal audit, external communications and legal services
Liberty Utilities Service Corp ("LUSC")	Provides IT, HR, legal, regulatory and government relations, outage management, vegetation management, accounting/finance, utility planning, and customer communications to Liberty Utilities Co.
ELABS, Central Region Office operating out of Joplin, MO (i.e., Empire)	Entities supplying business services to smaller subsets of regulated utility systems owned by Liberty Utilities Co.

Liberty Utilities Co. business group is APUC's national rate-regulated generation, transmission and distribution utility which provides electricity, natural gas and water utility services to customers in 13 states within the United States – which includes Liberty Midstates' operations. APUC's Liberty Power business group generates and sells electricity produced by a diversified portfolio of North American unregulated renewable and clean energy power generation facilities.

Charges from each noted upstream service affiliate were recorded on Liberty Midstates' standalone income statement employing a process of direct-assignment of charges, as well as via the allocation of "indirect" costs that were incurred for the benefit of a number of APUC holdings. Additional information addressing the services that are being provided by all the noted upstream service affiliates, except the newly-created "ELABS" entity, as well as the methodologies and procedures for direct-assignment and allocation of indirect costs to Liberty Midstates and other benefiting APUC holdings is discussed in some detail in an Algonquin Power & Utilities Corp Cost Allocation Manual ("Algonquin CAM" or "CAM") dated January 1, 2017. The creation of ELABS and certain "regional" offices that occurred in June 2017 was driven, in part, by a reorganization that transpired following the acquisition of The Empire District Electric Company ("Empire"). ELABS is the acronym for the LABS group which serves certain central-region utilities that work in the Empire offices. The noted CAM was filed with the Commission within Case No. AO-2017-0360, but has not been approved by the Commission. Algonquin Power & Utilities Corp/Liberty Utilities Co., Staff, and the Office of the Public Counsel are currently engaged in discussions relating to any necessary improvements and/or changes that should be made to the proposed CAM. While Algonquin Power & Utilities Corp/Liberty Utilities Co. does not currently have a Commission approved CAM, Staff approached its review of Liberty Utilities Co.'s affiliate transactions utilizing the Algonquin CAM as a guide.

The general philosophy for assigning and allocating affiliate costs embodied within the Algonquin CAM provide that:

- Administrative and business services costs should be direct-assigned to each benefiting entity to the maximum extent possible.
- Costs that are not directly assignable to a given benefiting entity, but which are associated with homogenous services being incurred to provide benefits to a

number of affiliates, should be allocated by employment of factors that best capture the cost-causative characteristic of the services being provided.

- Costs for services that are neither directly assignable to a given benefiting affiliate nor reasonably identifiable with a cost-causative allocation factor should, nonetheless, be allocated to all benefiting affiliates using a general allocator that recognizes that each benefiting affiliate should be charged – in some fashion and to some degree - for some portion of the costs being incurred in undertaking the "general" services being provided.

Within the historic test year ending June 30, 2017, Liberty Midstates' Missouri operations recorded approximately $3.4 million in expenses for services provided by the five upstream service affiliates delineated in table above. Liberty Midstates posted Adjustment 14 to "normalize" upstream service affiliates' costs for the reorganization that followed the acquisition of Empire.

The Company's Adjustment 14 contained two elements. First, a portion of Company Adjustment 14 eliminates payroll costs incurred in the historic test year associated with Liberty Midstates employees who were transferred out of Liberty Midstates to an upstream service affiliate that is expected to provide business services to Liberty Midstates as well as other utility systems owned by Liberty Utilities Co ("LUCo"). In other words, a portion of Company Adjustment 14 eliminates the "non-recurring" payroll cost of employees who will no longer be exclusively dedicated to providing service to Liberty Midstates. Second, with the other element of Company Adjustment 14, Liberty Midstates proposes to reflect budgeted 2018 expense levels for certain elements of upstream service affiliate costs being direct-assigned and allocated to Liberty Midstates. The reduction in recorded test year costs associated with former Midstates-direct employees who have since transferred to an upstream service affiliate is virtually identical to the increase in 2018-budgeted costs over test-year-actual expenses associated with certain services being provided by upstream service affiliates. Thus, Company Adjustment 14 suggests that the fairly significant reorganization of personnel, including the creation of a new "ELABS" group, is expected to cause a slight increase of approximately $16,000 in "net" Liberty Midstates Missouri operations' ("Liberty Midstates – MO") annual O&M expense.

B. Staff's Proposed Test Year Affiliate Transactions Adjustment – Subject to Revision and Supplementing

With the filing of this Staff Report, Staff is proposing a net *downward* adjustment to test year recorded levels of Liberty Midstates - MO retail jurisdictional expenses being charged from upstream affiliated parent/service company entities in the amount of $596,780. As shall be explained in greater detail in ensuing sections of this report, Staff does not consider its audit of upstream service affiliates complete. Staff is continuing to work with the Company to receive discovery responses that could allow Staff to make a better informed recommendation for an ongoing and normal level of prudently incurred upstream service affiliate costs to be properly included in Liberty Midstates - MO operations' retail cost of service in this case.[7]

Staff can readily observe that Liberty Midstates does not undertake a number of services, on its own behalf, that are administrative in nature and that are generally considered to be corporate ownership/governance or "back office" business services. Accordingly, Staff recognizes that Liberty Midstates - MO operations are receiving and should be responsible for paying for an equitable share of costs reasonably-incurred for necessary business services being provided by upstream service affiliates. While Staff is confident that Liberty Midstates is a beneficiary of a number of business services being provided by upstream service affiliates, at this point Staff is *not* confident that all costs being incurred are necessary for the provision of regulated utility service, or that all such costs are being accurately and fairly direct-assigned and allocated to Liberty Midstates - MO operations.

Staff's affiliate transactions adjustment consists of three components. First, Staff accepts, and therefore has posted, that element of Company Adjustment 14 wherein the test year costs associated with employees who were dedicated to Liberty Midstates operations have transferred to an upstream service affiliate where such employees are expected to provide service to Liberty Midstate operations, but additionally, to other regulated utility systems owned by LUCo.

Second, Staff is proposing to eliminate 75% of APUC labor and labor-related corporate governance and administrative oversight services that were direct-assigned and indirect-allocated

[7] Staff raised concerns with the Company's inability to provide timely and comprehensive responses to Staff discovery requests surrounding costs from upstream service affiliates at the Discovery Conference held on February 6, 2018.

to Liberty Midstates and further allocated to Missouri retail operations. The 75% disallowance considers the following concerns and factors:

- The vast majority of compensation being incurred at the APUC service company level comes in the form of bonuses, Long Term Incentive Compensation, Employee Stock Purchase Plan ("ESPP"), and Stock Options. The Company has not yet adequately supported its compensation strategies and goals – which appear to consist primarily of incentive payments which may or may not promote the provision of utility service at the lowest long-term cost possible consistent with prudent service quality and safety standards. Neither the overall reasonableness of individual compensation components nor overall executive compensation, has been provided by the Company as of the time that the Staff Report was being finalized for production.
- It does not appear that the four executives at APUC are attempting to accurately record daily or weekly timesheets that would demonstrate actual time being incurred for the benefit of Liberty Midstates – or for that matter, any other APUC holding.
- Notwithstanding contrary claims narratively provided within discovery responses received to date, it appears that the costs associated with APUC's significant efforts to acquire new holdings are being pushed down to LUCo's regulated properties – such as Liberty Midstates.

Third, Staff is also proposing to reduce test year actual recorded upstream service affiliates' costs to capture a decline in the levels of costs being incurred in the post-test year time period. The acquisition of Empire represented a large addition to APUC's as well as LUCo's holdings. As such, Staff fully expects that Liberty Midstates as well as other holdings of Algonquin Power & Utilities Corp and LUCo will achieve some synergies and economies of scale, as relatively fixed "common business services" costs should now be being spread over a larger number of benefiting entities. While a portion of Staff's adjustment captures a reduction in overall upstream service affiliates' costs in the post-historic time period, Staff has concerns that the full amounts of synergies in the post-test year time frame are not being fully captured in the small amount of data currently available in the post-test year timeframe.

A more detailed discussion of the basis and support for the upstream service affiliates adjustments being proposed at this time are contained within Part D of this Affiliate Transactions Section of the Staff Report. If responses to long-outstanding data requests are eventually provided and comprehensively answered, Staff may propose to revise its affiliate transactions adjustment being recommended with this Staff Report. Such data could cause Staff to reduce or increase the amount of its affiliate transactions adjustment from that being proposed within the Staff Report at this time.

C. Staff has Significant Concerns Regarding Upstream Service Affiliates' Costs Being Pushed Down to Liberty Midstates' Missouri Operations

As briefly discussed above, shared services provided to Liberty Midstates are now being charged from five different upstream service affiliates through a combination of direct-charging of labor and non-labor expenses, as well as numerous methodologies and schemes for allocating indirect or "common" business services costs. Liberty Midstates - MO operations represent a relatively small portion of APUC's total property holdings. The combination of charges being derived from five service entities that are being separately accounted for and that are employing multiple complex allocation schemes, in conjunction with the fact that Liberty Midstates - MO operations represents a relatively small slice of the entire larger APUC entity, makes it very challenging for Staff to assess the overall reasonableness of shared services costs being incurred, and just as importantly, the equity of allocation processes being employed, that meaningfully or materially affect upstream service affiliate charges to Liberty Midstates - MO retail cost of service.

General concerns regarding the direct assignment and allocation of upstream affiliates' shared services costs to LUCo's regulated utility holdings, such as Liberty Midstates, are significantly heightened in this case inasmuch as the ultimate parent – APUC – is a corporation that also owns and provides executive and business services to Liberty Power, a wholly owned subsidiary that, in turn, owns numerous unregulated electric generating facilities. If a utility holding company owns only regulated utility properties in multiple states or jurisdictions, there always remains a concern of properly and equitably assigning costs to benefiting jurisdictions. However, a much larger concern arises when a company owns *significant unregulated operations* in addition to owning a number of rate-of-return regulated utilities. The heightened concern arises as there could exist a very real bias on the part of utility management to attempt to assign or allocate as many shared services costs to captive utility customers taking essential rate-of-return regulated utility service in order that its unregulated holdings can achieve even greater "non-regulated" returns for the company's shareholders.

The size and complexity of the five affiliate organizations providing shared services to Liberty Midstates - MO operations, in conjunction with the incentive that exists for APUC to attempt to maximize the assignment and allocation of the cost of shared services to APUC's regulated utility holdings, make it imperative that Staff receive detailed and timely information that will permit it to drill down and identify areas of concern that could require additional audit steps to be able to verify that 1) the allocation schemes being employed are equitable, and 2) direct-assignment and proper allocation of indirect common costs are being regularly carried out as described within the Algonquin CAM. As a result of the untimeliness of responding to discovery, as well as the quality and disjointed nature of discovery responses received, Staff is also recommending that the Commission order Liberty Midstates - MO to 1) implement a number of accounting report writing capabilities, and 2) undertake internal audits of the timesheet reporting for APUC management and certain other upstream service affiliate personnel.

1. Upstream Service Affiliates have not been Properly and Accurately Direct Charging Labor to Benefiting Entities as Specifically Provided for Within the Algonquin CAM

Staff has observed in its review that, at least at the highest service affiliate level – namely, at Algonquin Power and Utilities Corp level where corporate ownership, oversight, and business services are provided, employees and officers are *not* accurately direct-charging their hours to benefiting downstream entities. The failure to properly and correctly direct-assign hours to benefiting entities is concerning to Staff in that the very bedrock of proper cost assignment as set forth with the Algonquin CAM provides that, to the maximum extent possible, labor and non-labor charges should be direct assigned to entities that are benefiting from such service or good. Specifically, the "Introduction" section of the Algonquin CAM begins by stating:

> This Cost Allocation Manual ("CAM") has been completed in accordance and conformance with the *NARUC Guidelines for Cost Allocations and Affiliate Transactions* ("NARUC Guidelines"). More specifically, the ***founding principles*** of this Cost Allocation Manual are to ***1) directly charge as much as possible to the entity that procures any specific service***, and b) to ensure that unauthorized subsidization of unregulated

activities by regulated activities, and vice versa, does not occur. (***emphasis added***)

Staff's concern of improper direct assignment of labor hours is heightened by its observation that this deficiency is occurring at the highest management level of the APUC organization, where presumably policies, examples, and corporate culture are established. Further, the importance of proper and accurate direct charging of labor cannot be lost upon this highest level of APUC management. It would be this group that would have established the policy and priority of proper and accurate direct timesheet reporting, as these employees/officers would have authorized, if not actually authored, training modules designed to educate all employees of the methods for direct assigning time to benefiting entities, as well as the importance of accurately direct-assigning labor hours. More specifically, in Staff Data Request No. 0140, the Company was requested to:

> Please provide any manuals, guidelines or other written materials that discuss, describe and instruct how Algonquin Power & Utilities Corp corporate/shared service costs are to be accounted for. Such documents would include, without limitation, any documents that discuss or describe transactions that are to be recorded by "Type of Cost" as set forth within CAM Table 1, as well as any activities, functions or other delineation of cost assignments by account/activity code.

Included as part of its response to Staff Data Request No. 0140, the Company provided an *APUC Cost Allocation Compliance Training Module.* The following excerpts would suggest that the Company intends for all of its employees to take seriously its requirement that all employees regularly and accurately direct charge their time to benefiting entities to the maximum extent possible – as was also emphasized within the *Introduction* section of the Algonquin CAM:

> **Question 3 (Slide Layer)**
>
> **What is subsidization?**
>
> Subsidization is when a utility pays – directly or indirectly – for the costs of an affiliate when the affiliate should have paid the cost.
>
> **Remember we need to ensure we do not subsidize an affiliate**
>
> **Question 4 (Slide Layer)**
>
> How does subsidization occur?
>
> - You not charging the correct company for time spent working for that company
> - You allocating more costs to an entity than is appropriate

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Question 5 (Slide Layer)

How do you prevent subsidization?

We prevent subsidization by training employees on how to properly record time and how to properly charge expenses

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1.13 What is the Cost Allocation Manual (CAM)"

- What is a direct charge?
  - A direct charge is when we charge the company that we are completing work for

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1.16 Importance of the CAM

- Utility Regulators must approve all costs that will be included in rates
- This will include costs from affiliates and corporate entities
- Regulators consider the following:
  - Corporate services and associated costs <u>must</u> provide a benefit to the utility customer
  - Charges <u>must</u> be supported by invoices / backup
  - Costs <u>must</u> be distributed as described in the CAM

1.17 Timesheets / Expenses

How Does This Apply to Me?

- Ensure timesheets are accurate and timely
  - Your timesheet <u>must</u> reflect how you actually spend your time
  - Your timesheet <u>must</u> accurately identify the entity or project for which you did work

Reminder: Direct charge where applicable

Given the significant emphasis included within the Algonquin CAM, as well as within the noted CAM compliance training module, that APUC management expects that all employees should regularly, properly, and accurately charge their labor hours to benefiting entities, it is concerning to Staff that at the highest management level of APUC, where policies and examples are established, this management group chose to ignore the very direct-charging instructions that it would otherwise have the Staff – and ultimately this Commission – believe to be regularly occurring.

Finally, Staff's concerns of deficiencies in proper direct timesheet recording are further heightened by the efforts that it was required to expend to obtain APUC timesheets. Specifically, on December 8, 2017, Staff issued Data Request No. 0136 (c) seeking the timesheets for all four APUC positions for all months of the test year, plus additional months available to date subsequent to the end of the historic test year. Staff Data Request No. 0136 was issued on December 8, 2017, would have been due pursuant to the Commission's normal 20-day-response-time discovery rules by December 28, and was noticed by the Company to be provided no later than January 15, 2018. A partial response to Staff Data Request No. 0136 was first provided on January 19. However, with its initial response to Staff Data Request No. 0136 the Company ignored the specific request for APUC timesheets, but instead, referred to other Regulatory Reports being provided with its response to other subparts to Staff Data Request No. 0136 wherein direct loaded labor dollars associated with the four noted APUC employees/officers could be observed.

Regarding the loaded labor dollars that the Company was referencing and characterizing as being responsive to other subparts of Staff Data Request No. 0136, it is not possible to determine labor hours by individual – as had been specifically sought within the timesheets that were being requested with subpart (c) of Staff Data Request No. 0136. Accordingly, on January 23, Staff sent an e-mail to Liberty Midstates' Senior Manager, Rates and Regulatory Affairs Ms. Jill Schwartz seeking the APUC timesheets as originally requested within Staff Data Request No. 0136 (c). The e-mail exchange that began with the request for APUC timesheets on January 19, as well as follow-on exchanges occurring through January 25, have been affixed to the Staff Report as Appendix 3, Schedule JRD-d1. Basically, the Staff was initially requesting either specimen copies of timesheets for the four APUC employees/officers for specific months *or* a spreadsheet that would delineate hours charged by month to benefiting entities for all APUC employees/officers for all months beginning July 2016 to date. On February 5, Staff finally *first* received timesheets *only for the month of June 2017* for all APUC employees/officers. On February 18 the Staff finally received the spreadsheet that had be created to capture all the hours being charged by the four APUC executives to benefiting entities for the period June 2016 to date.

The specimen timesheets provided on February 5 revealed that *all four employees/officers assigned the precise number of hours to the exact same entities for each day of each week* for the month of June 2017. Such precise charging of identical time to purportedly benefiting entities – for each hour of each day of the month for all four officers/employees demonstrated what Staff had surmised from observing the regularity of APUC loaded labor charges being direct-assigned to Liberty Power, LUCo and Liberty Midstates in each month of the test year and for months available beyond the end of the test year – namely, that *no attempt was being made by the employees/officers of APUC to accurately account for their time and properly charge benefiting entities*. Staff fully understands that the affiliate transactions data that it sought with requests sent out on December 8 were significant. Accordingly, Staff did not object to the Company's notice that it would not be responding to all requests issued on December 8 until January 15 (which as discussed above, the Company fell significantly short of fulfilling). That stated, the Company's extremely slow response time in providing APUC timesheets raises another concern that the Company may have been failing to meet the direct-assignment principles so clearly set forth within its CAM.

The Company's *APUC Cost Allocation Compliance Training Module* discussed above specifically envisioned that its employees would be expected to produce timesheets in rate case proceeding, as noted from the excerpt below also taken from the *APUC Cost Allocation Compliance Training Module*:

> **1.19 Timesheets / Expenses**
> **Timesheets and Expenses are Discoverable**
>
> - "Discoverable" means that (within the context of a rate case) evidence may be requested for a cost that is proposed to be placed in a utility's rates
> - A time sheet, or any invoice, could be requested, as time sheets support our labor costs proposed to be in rates
> - Time sheets may have to be explained and defended to show how your time (and associated cost) was spent providing a service that provided a benefit to customers of that utility

The explanation and emphasis on accurate timesheet reporting noted in the training module demonstrates that the Company knew the importance of keeping and providing accurate timesheets – and that it fully understood that its personnel would be expected to provide timesheets and should be able to explain the services being provided to other entities.

2. APUC has not Adequately Supported the Ratepayer Benefits Expected to be Derived from its Incentive Compensation Plans, nor has it Supported the Overall Reasonableness of its Executive Compensation Package

With Data Request No. 0188, Staff sought information regarding any incentive compensation plan in effect for Liberty Midstates and for any upstream service affiliate for which labor charges are being direct-assigned or allocated to Liberty Midstates operations. Staff Data Request No. 0188 is a broad, multi-part request that sought, without limitations, items such as:

- Plan Documents and/or Plan Summaries
- Scorecards to identify goals established as well as to measure achievement of goals in recent periods
- Theoretical maximum payouts and actual payouts/awards granted in recent period.

Staff Data Request No. 0188 was issued on December 22, 2017, and, under the Commission's discovery rules, should have been provided by January 11, 2018. The Company did not object to responding to Staff Data Request No. 0188, nor did the Company seek additional time to respond to the noted request**.** On February 26, 66 days after it was submitted to the Company, Liberty Midstates provided a response to Staff Data Request No. 0188. The information provided is incomplete, and accordingly, Staff will be requesting Liberty Midstates to supplement its response to Staff Data Request No. 0188 and/or be following up with supplemental written discovery attempting to obtain what it intended to receive when issuing Staff Data Request No. 0188.

Within the historic test year ending June 30, 2017 the four executives working at the APUC level cumulatively received total compensation in excess of $7.5 million. The majority of such compensation came in the form of bonuses, long term incentive plan awards, and stock options. These types of costs have been subject to disallowance in prior Missouri utility rate proceedings, particularly when such compensation is directly tied to achievement of financial metrics (earnings per share targets, for example). However, the information provided to date by the Company has not sufficiently explained the basis on which bonuses, long-term incentive plan awards and stock options are paid to APUC executives, and thus whether such costs are allowable in Missouri customer rates under traditional Commission standards. The goals and support for the bonuses and long term incentive plan awards should be provided whenever the Company fully responds to Staff Data Request No. 0188. However, Staff sought additional support for APUC executive bonuses, long term incentive plan awards, and stock option awards within data requests issued on February 2, 2018. As of the time this Staff Report was being reviewed in final form prior to production, the Company had not yet responded to the executive compensation requests that were issued on February 2, 2018.

The 75% disallowance of APUC executive compensation is being proposed, in part, because Staff has not yet received any support for the significant level of APUC executive compensation awarded during the historic test year. As noted elsewhere within this Staff Report, pending receipt and review of outstanding data requests, Staff may revise its APUC executive compensation adjustment in subsequent testimony filings expected to be made within this docket.

3. Staff has been Unable to Determine if the Cost of Acquisition Efforts are Being Fully Tracked and Retained at any Upstream Service Affiliate

It is Staff's position that all costs incurred in researching, negotiating, and closing utility system acquisitions that are being considered and/or that are actually being acquired by APUC should *not* be charged to regulated utility customers. Similarly, any costs incurred by APUC or any of its service affiliates in developing or acquiring new generation resources that would be owned and operated by Liberty Power should, likewise, not be charged in whole or in part to regulated utility customers. Merger and acquisition efforts are undertaken primarily for the benefit of APUC's shareholders, and accordingly, the cost of such efforts should not be passed on to captive customers served by regulated utilities such as Liberty Midstates - MO operations. Staff's position on the ratemaking treatment to be afforded merger and acquisition efforts is consistent with this Commission's precedent established within UtiliCorp United Case No. ER-97-394

Within numerous publicly-distributed statements, APUC has stated its intentions to grow its earnings and business holdings, in part, through acquisitions of electrical energy generation facilities and additional utility systems. For instance, in its 2014, 2015, and 2016 Annual Information Forms filed with the Ontario Securities Commission, APUC has stated its intentions to grow its non-regulated renewable power generation and clean energy power generation (i.e., Liberty Power) through development of new generation projects and "accretive acquisitions of additional electrical energy generation facilities."[8] Additionally, APUC has stated its intentions to grow its regulated utility services business (i.e., Liberty Utilities Co.) through organic service territory growth as well as through "accretive acquisitions of additional utility systems."[9] In addition to the two acquisitions that this Commission is aware of – namely, the acquisition of Liberty Midstates - MO operations from Atmos Energy in 2014 and The Empire District Electric Company acquisition that closed in the beginning of 2017, APUC has in recent years made numerous other utility systems purchases, as well as purchased and/or developed other non-regulated electric generating facilities. Finally, within its 2017 Company Plan which was provided in response to Staff Data Request No. 0007, APUC indicated that Liberty Power as well as LUCo were each targeting to invest $600 million annually in new assets.

Given APUC's recent acquisitions history, as well as its stated intentions to grow, in part, through additional acquisitions, it is clear that to some fairly significant extent, APUC is *in the business of developing and acquiring businesses*. What is not clear to Staff is the extent to which APUC or any other service affiliates are properly and adequately direct-assigning time to researching, negotiating, and closing potential and actually-consummated acquisitions. Further, Staff's understanding from discussions with Liberty Midstates' rate and accounting personnel is that work orders are established, at some point in the acquisition process, to capture costs being incurred in pursuing acquisitions. However, as of the time this Staff Report was being finalized, Staff has not received responses to discovery that would reveal at what point in the researching/negotiating/closing process such costs begin to be charged to a designated acquisition work order. Further, Staff has not been able to verify the ultimate accounting disposition of costs incurred in researching, negotiating, and closing acquisition targets. More specifically, Staff has not been able to ascertain whether such costs are being charged to a capital project, written off below-the-line either at the APUC parent-company level or perhaps at some other APUC subsidiary level, or if such charges are ultimately being pushed down to all or specific APUC/LUCo holdings.

Staff Data Request No. 0146 sought the following information for each utility system purchased by APUC for the period January 2015 to date:

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[8] Algonquin Power and Utilities Corp Annual Information Form dated March 10. 2017, p.9.

[9] *Id.*

a. List and describe each acquisition noting its physical location, and as applicable, the regulatory jurisdiction wherein such utility/utility asset provides service
b. Total cost of each acquisition
c. Closing date of each acquisition
d. Total costs incurred in researching, negotiating and closing the purchase – delineating total internal loaded labor cost versus external costs incurred.
e. A breakout of total internal loaded labor costs by officer/employee, noting the name, title and Algonquin Power & Utilities Corp subsidiary or business unit where each officer/employee is employed
f. The ultimate accounting for all costs incurred in researching, negotiating and closing the purchase, noting balance sheet and income statement accounts charged by company/subsidiary/affiliate/business unit as may be applicable

In response to Staff Data Request No. 0146, the Company briefly identified three utility systems purchased in the 2015-to-date timeframe – one of which being Empire which closed at the beginning of 2017. The Company's response ignored the request for subparts b. through f. of Staff Data Request No. 0146 wherein additional data regarding the size of each acquisition was requested, as well as specific information addressing both the cost of acquiring such facilities, as well as the ultimate accounting disposition of the costs incurred in acquiring such systems. Instead, the Company merely stated:

> As stated in the Company's response to MPSC DR 0144, acquisition costs are recorded on APUC's books and are not allocated to the operating utilities, including Liberty Utilities (Midstates Natural Gas) Corp.

On several occasions, Staff has requested the Company to supplement and completely respond to all elements of Staff Data Request No. 0146. No supplemental response has been provided as of the date that this Staff Report was being finalized.

While the Company has claimed that acquisition costs are being retained at the APUC level, Staff is concerned that such costs, or certainly not *all* such costs, being incurred in researching, negotiating, and closing actual as well as once-studied-but-never-consummated-acquisitions, are being retained at the APUC level (i.e., not being charged down to utility systems such as Liberty Midstates - MO operations as some element of "administrative services"). Such concern arises, in part, as a result of the Company's inability to timely provide all the materials requested in Staff Data Request No. 0146.

Additionally, APUC files a Form 60 with the Federal Energy Regulatory Commission which provides total central services expenses incurred at the highest APUC corporate level, as well as total charges billed to downstream benefiting subsidiaries or affiliates. According to the 2016 FERC Form 60, the difference between central services expenses incurred at APUC and central services expenses billed to downstream subsidiaries or affiliates, was only $21,448. In other words, the data provided within the FERC Form 1 indicates that only $21,448 was retained at the APUC level – all other APUC services costs would have been pushed down to downstream affiliates. Such small amount of costs being retained at the APUC level does not appear to be credible given that the significant Empire purchase occurred in 2016. It is possible that the costs of researching, negotiating, and closing the Empire acquisition were capitalized, or perhaps "retained" at some other service entity level (i.e., LUC, LUSC or LABS) below APUC. Nonetheless, the small amount of costs not being charged out to affiliates, as reported within the 2016 FERC Form 60, also leads Staff to have concerns that the cost of APUC's significant merger and acquisition efforts are *not* being fully retained at the APUC or other service-entity level. **

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In summary, Staff has concerns that APUC is *not fully tracking all costs* – including external as well as internal – incurred in researching, negotiating, and closing utility system acquisitions, new electric generating facilities, and new business development projects. Additionally, Staff has concerns that APUC is *not retaining* all costs incurred in researching, negotiating, and closing utility system acquisitions, new electric generating facilities, and new business development projects.

4. Charges for Upstream Service Affiliates are Disjointed, Not Easily Aggregated for Trends or Aberrations Analysis, and Cannot be Reasonably Analyzed Within the Time Constraints of a Rate Case Procedural Schedule

The Company was unable to provide basic test year and post-test year support for upstream service affiliates' "total entity," Liberty Midstates, or "Liberty Midstates - MO operations" direct-assigned and allocated charges in a timely fashion. Further, the test year and post-test year affiliate costs and allocation support, once eventually provided, was disjointed, voluminous, and could not reasonably be reviewed in meaningful detail within the procedural schedule timeframe that must be adhered to given the Missouri eleven-month statutory operation of law date.

The voluminous and largely-disjointed cost support eventually provided required Liberty Midstates personnel to spend several hours explaining to Staff what had been provided, and how the information tied together to support test year and post-test year charges to Liberty Midstates - MO operations. On the one hand, Staff recognizes, and is appreciative of, the significant efforts that Liberty Midstates' rate and accounting personnel undertook to provide the volumes of data required to support test year and post-test year charges to Liberty Midstates - MO operations. But on the other hand, Staff submits that much of this information should have been immediately available when Liberty Midstates' Missouri rate application was filed, but in any event, much quicker than the approximate 40-day period that Liberty Midstates took to provide such basic supporting cost information.

Further, Staff submits that APUC's present aggregation and report writing limitations prohibit expeditious month-to-month and year-over-year comparison of costs by specific subcategories, and as assigned/allocated to benefiting entities. Such limitations severely impede Staff's ability to quickly observe trends or aberrations in multiple months/years of affiliate service charges to benefiting entities. Additionally, given the disjointed nature of cost support provided, the materiality of costs by specific cost categories cannot be quickly assessed for multi-month and multi-year periods. Inability to quickly identify the cost categories that most materially impact charges being assigned/allocated to Liberty Midstates - MO operations impedes Staff's ability to efficiently analyze the reasonableness of test year charges and/or proforma expense levels being proposed by Liberty Midstates to be reflected in the development of Liberty Midstates - MO operations' retail rates.

Liberty Midstates' slow response time, and the voluminous and disaggregated format of cost support provided for upstream service affiliates, in conjunction with the resources Staff had to assign to discovery disputes, have significantly impeded Staff's ability to analyze the reasonableness of affiliate charges being proposed by Liberty Midstates to be recovered in Missouri retail rates. As a result, Staff is recommending within Subpart E of this Affiliate Transactions Section of the Staff Report a number of report writing requirements.

5. It is Unclear How, and to What Extent, Upstream Service Affiliates are Monitoring and Controlling Costs

In the review of utility base rate applications, Staff routinely requests the utility to provide budget variance reports and other financial reports that are regularly prepared for management, including requests for separate reports for various utility departments and/or business units that may have been established. Information provided in regularly prepared budget variance and other internal financial/statistical reports prepared for management assists the Staff in identifying aberrations in revenues, expenses, and construction expenditures that may require additional investigation and possible adjustment to reflect "ongoing and normal" conditions. Such reports and financials also assist Staff in gaining an understanding of how utility executives "manage" the business – including the management of separate business units, departments, or other designated reporting entities. Staff has diligently sought to obtain budget variance reports and any other regularly prepared financial statements that are created for each upstream service affiliate. To be clear, Staff has never requested that the Company or any upstream service affiliate "prepare" or "create" a budget variance report or financial report not in existence. Rather, Staff has simply and steadfastly attempted to obtain budget variance and other financial reports that are *routinely prepared* and reviewed by management. As of the time this Staff Report was being finalized, the only financial and budget variance reports that have been provided are spreadsheet analyses, prepared for each upstream service affiliate, for the annual periods of 2015, 2016, and 2017. The information provided is aggregated at very high summary level of cost categories, and provides no narrative explanation of why budget variances at the high-aggregation level have occurred. Further, Staff's understanding is that the spreadsheet that has been provided is not a "regularly prepared" document, but rather, represents a data pull undertaken by the Company in an attempt to be responsive to Staff's requests for budget variance and regularly-prepared financial statements for each upstream service affiliate.

Notwithstanding Staff's continuing requests for the Company to provide budget variance reports and regularly prepared financial statements "in existence," as of the time this Staff Report was being finalized, no additional information has been provided to Staff.

Lack of ability or willingness to provide meaningful budget variance and financial reports at each upstream service affiliate level is concerning to Staff. At this point Staff has been unable to observe how, where, and to what degree the upstream service affiliates are tracking – much less controlling and managing their costs.

D. Additional Explanation and Support for Staff's Adjustment for Upstream Service Affiliates Costs

A brief discussion of the Staff's adjustment for upstream service affiliates cost was presented within Part B of this Affiliate Transactions Section of the Staff Report. More explanation and support for the Staff's adjustment, as calculated at this point in time, are being presented herein.

During the historic test year, Liberty Midstates - MO operations were charged $470,808 for APUC services labor costs. At this point in in time, Staff is proposing to reduce test year recorded APUC corporate/shared services labor costs by 75%. The 75% disallowance is based on the following three elements:

- It is clear that APUC employees and officers were not correctly and accurately direct-assigning their time during the historic test year to benefiting entities. See discussion in Section C.1. Without accurate direct-timesheet reporting, Staff does not accept that APUC labor costs assigned Liberty Midstates is accurate or reasonable.
- It is likely that much of the time of executives at the APUC service entity level is spent on researching, negotiating, and closing utility systems and electric generating facility acquisition, as well as pursuing other business development opportunities. See discussion in Section C.4. Further, it is probable that APUC is not fully retaining all costs incurred in efforts to research, negotiate, and close utility systems and utility asset acquisitions. Accordingly, a portion of 75% disallowance is associated with the Staff's concern that the significant cost of efforts incurred in acquiring new properties have not been "retained" at the APUC level.

- As noted within Section C.2, as of this point in time, APUC has not demonstrated that its incentive compensation programs are providing a benefit to ratepayers. Further, APUC has not supported the overall reasonableness of its executive compensation. Accordingly, a portion of the proposed 75% disallowance of test year APUC services labor costs is attributable to APUC's failure to support various elements of is compensation plan, as well as the overall reasonableness of its executive compensation program.

Additionally, as described at the outset of this section of the Staff Report, the Company proposed to adjust certain elements, but not all elements, of charges being direct-assigned and indirect-allocated from upstream service affiliates. Reviews to date suggest that a reduction in overall upstream service affiliates is being charged to Liberty Midstates operations in the post-test year timeframe. Given probable synergies and economies of scale that could be expected to be realized with the Empire acquisition, Staff believes it is reasonable to anticipate that Liberty Midstates - MO operations will experience a net reduction in the test year level of upstream service affiliates charges. Accordingly, at this point in time, another element of Staff's affiliate transactions adjustment "annualizes" the "net" decline in post-test year upstream service affiliates costs being charged to Liberty Midstates – MO operations that have been realized since July 2017 – or the time by which the reorganizations following the significant Empire acquisition would have been fully implemented. More specifically, the third element of Staff's affiliate transactions adjustments divides the sum of the July 2017 through November 2017 actual upstream service affiliates'[10] O&M expense charges to Liberty Midstates by five (i.e., total number of actual months' data accumulated available at the time the Staff Report was being prepared) and multiplies such monthly-average amount times twelve (i.e., to derive a full annual expense allowance). Thus, the third element of Staff's affiliate transaction adjustment replaces test year actual upstream service affiliate O&M expense charges with the calculated post-Empire-acquisition proforma level of upstream service affiliates' O&M expense charges being experienced in the post-test year timeframe.

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[10] LUC, LABS, LUSC, and ELABS charges were annualized employing the methodology discussed herein. As previously described, APUC service charges were only adjusted to eliminate 75% of test year actual labor O&M expense charges.

E. Staff Recommendations to Facilitate More Expeditious Discovery Responses, and to Achieve a More Detailed and Efficient Audit of Upstream Service Affiliates' Costs to Liberty Midstates in Future Missouri Base Rate Proceedings

Because of the slowness in discovery response time, concerns regarding failure to adequately direct-assign employees' and officers' labor hours, as well as the disjointed and "unfriendly" nature of cost support that has been provided for Liberty Midstates charges from upstream service affiliates in this proceeding, Staff is concerned that adequate records are not being maintained by Liberty Midstates' upstream affiliates, as required by the Commission's Affiliate Transaction Rules.[11] Therefore, Staff recommends that APUC/LUCo:

- develop additional report writing capabilities from the Company's accounting records,
- implement positive time sheet reporting with some additional documentation requirements,
- establish work orders immediately when a business acquisition is being considered and/or a business project is being considered for development,
- undertake regular internal audits of employees' and executives' timesheet recording.

Given the lack of timeliness in responding to discovery, the quality of discovery responses received, as well as the deficiencies in direct timesheet reporting observed, each recommendation is warranted, and Staff plans to make the same recommendations in the CAM case (Case No. AO-2017-0360).

1. <u>Recommended Report Writing Capabilities</u>

1. Costs from each upstream affiliate providing business services, for annual and multi-month periods as maybe requested, within one executable spreadsheet, further broken out into:
   a. Total direct costs incurred, before assignment to benefiting affiliates, further broken down into categories of:

[11] 4 CSR 240-40.015(5).

i. Labor and labor-related (benefits, taxes, and other burdens typically associated with, and loaded onto, straight hourly wages)

ii. Non-labor costs

b. Total indirect-allocable costs incurred, before assignment to benefiting affiliates, further broken down into categories of:

i. Labor and labor-related (benefits, taxes, and other burdens typically associated with, and loaded onto, straight hourly wages)

ii. Non-labor costs

c. Direct costs assigned to *each* benefiting affiliate, also further broken down into the categories of:

i. Labor and labor-related (benefits, taxes, and other burdens typically associated with, and loaded onto, straight hourly wages)

ii. Non-labor costs

d. Indirect costs allocated to *each* benefiting affiliate, also further broken down into the categories of:

i. Labor and labor-related (benefits, taxes, and other burdens typically associated with, and loaded onto, straight hourly wages)

ii. Non-labor costs

2. Extraction of costs by "Account Number," "Account Descriptions," and other designations that may arise prospectively for annual and multi-month periods as may be requested, by upstream service affiliate, within one executable spreadsheet, before direct assignment or allocation to downstream subsidiaries and affiliates.

3. Incentive compensation components by incentive plan by upstream service affiliate for annual and multi-month periods as may be requested, in one executable spreadsheet, in total, and as:

a. Direct assigned to each benefiting affiliate

b. Allocated to each benefiting affiliate.

4. Identification and quantification of any costs that may be being retained at any upstream service affiliate, for annual and multi-month periods as may be requested, in one executable spreadsheet

2. Timesheet Reporting

– for any officer or employee at APUC, as well as service affiliates below the APUC level, that routinely work on both unregulated Liberty Power operations as well as Liberty Utilities Co. regulated utility operations:

1. Positive time sheet reporting for all hours of the year. In other words, no "exception" timesheet reporting. No hours will be permitted to automatically fall to a "residual" or "home" account or activity. All hours should be assigned to some activity with a written description of activities undertaken.
2. Positive time sheet reporting should designate various work products produced or being worked on.
3. Timesheets should be retained in electronic format, with proper cataloguing for quick identification and retrieval during the discovery phase of a rate case procedural schedule.

3. Mergers and Acquisitions Accounting

Whenever any company/investment/new development project is being considered for acquisition or development, one or more work orders should be established to capture 1) all costs of investigating such potential acquisition/development project, 2) all costs incurred to facilitate the acquisition, 3) all cost incurred seeking regulatory approvals, 4) all costs incurred for closing each transaction, 5) all transaction costs incurred in closing the acquisition/development project, as well as 6) all costs incurred in transitioning the operations of the newly acquired/developed utility system/generating facility/project into Algonquin Power & Utilities Corp operations. Such work order(s) should capture all costs for outside services, as well as all loaded payroll costs of any employees/officers working at APUC or within any APUC subsidiary or service affiliate. Further, the disposition of all costs initially charged to any work orders established to capture any cost categories delineated above should be retained by entity charged, by month, and by FERC account. The accounting requirements set forth herein will not dictate the ratemaking treatment that should automatically be afforded such costs. However, it is imperative that all internal and external costs incurred in researching, negotiating, and closing a business acquisition/development project be accurately tracked.

4. **Periodic Internal Audits of Timesheets Required for**

1. All officers/employees at APUC and all officers/employees working at service affiliates who routinely work on both unregulated Liberty Power operations as well as Liberty Utilities Co. regulated utility operations.
2. Liberty Utilities (Canada) Corp Business Services – Two highest paid employees/officers working on the following “Type of Cost” as listed on Table 4a of the Algonquin CAM:
   a. Human resources
   b. Executive and Strategic Management
   c. Utility Planning
3. Liberty Utilities (Canada) Corp Corporate Services – Two highest paid employees/officers working on the following “Type of Cost” as listed on Table 4b of the Algonquin CAM:
   a. Financial Reporting, Planning, and Administration
   b. Treasury
   c. Legal Costs
4. Liberty Utilities Service Corp – Two highest paid employees/officers working on the following “Shared Services” delineated on Table 5 of the Algonquin CAM:
   a. Legal
   b. Regulatory & Governmental Relations
   c. Utility Planning

Staff Witness/Expert: James R. Dittmer

IX. Income Statement

A. Missouri Jurisdictional Rate Revenues

1. **Introduction**

The following describes how Staff determined the amount of Liberty Midstates – MO’s adjusted operating revenues for its three rate districts (WEMO, SEMO, and NEMO). Since the largest component of operating revenue is a result of rates charged to Liberty Midstates – MO’s retail customers, a comparison of operating revenues with the cost of service is fundamentally a test of the adequacy of the currently effective retail gas rates to meet Liberty Midstates – MO's current costs of providing utility service.

One of the major tasks in a rate case is to determine the magnitude of any deficiency (or excess) between a company's cost of service and its operating revenues. Test year revenues need to be appropriately normalized and annualized in order to accurately measure the amount of any deficiency (or excess) in the current level of operating revenues. Once determined, the deficiency (or excess) can only be made up (or otherwise addressed) by adjusting retail rates (i.e., rate revenue) prospectively.

In order to calculate Liberty Midstates – MO's retail jurisdictional revenue deficiency (or excess), it is necessary to determine and sum all annualized and normalized Missouri jurisdictional operations and maintenance expenses, all income tax and other tax expenses, and annualized depreciation expenses. Additionally, a return requirement is determined by multiplying a recommended weighted overall cost of capital by Liberty Midstates – MO's retail jurisdictional investment in plant, working capital, and various other investment components (i.e., rate base). The sum of all Missouri retail jurisdictional expenses and the Missouri retail jurisdictional return requirement are then compared to normalized and annualized "revenues at existing rates" to determine the Missouri retail jurisdictional base rate revenue deficiency (or excess).

2. Character of Liberty Midstates – MO's Retail Sales

All three of Liberty Midstates - MO's rate districts serve primarily small cities or towns in rural areas. Further, the vast majority of all three rate districts' sales are made to residential, small general service and medium general service customers whose loads are affected by weather (i.e., heating degree days).

3. Development of Revenues in this Case

To determine the appropriate amount of revenue to include in the cost of service calculation for the NEMO, WEMO, and SEMO districts, Staff applied standard ratemaking adjustments to normalize the gas usages and customer levels. These adjustments were necessary to determine the amount of revenue that Liberty Midstates - MO would collect under normal weather conditions, gas usage, and customer levels. The intent of Staff's adjustments to test year Missouri usage and rate revenues is to determine the level of revenue Liberty Midstates – MO would have collected annually, based on information "known and measurable" at the end of the test year for the 12 months ended June 30, 2017, updated for known and measurable changes through December 31, 2017. There also will be a true-up in this case through March 31, 2018.

4. Customer Growth

Staff has annualized customer growth for the residential, small general service, medium general service, and large general service customer classes of Liberty Midstates - MO's three rate districts. There are two components to Staff's revenue annualization: the base charge and the commodity charge. The base charge, which is the minimum monthly charge assessed to customers for supplying service, is determined by multiplying Staff's annualized customer count by the current monthly base charge authorized in Liberty Midstates' Missouri tariffs. The commodity charge is a fee paid to Liberty Midstates - MO based upon the usage of the customer and is determined by multiplying Staff's normalized customer count times Staff's weather normalized usage.

In determining the annualized customer level for the above customer classes, Staff reviewed the historical customer levels of Liberty Midstates - MO for trends. For the customer classes that exhibited an upward or downward trend, Staff has made an adjustment to reflect the change in revenue that would have occurred if the number of customers taking service at the end of the December 31, 2017, updated period had existed throughout the test year. Staff did this by either reflecting the actual number of customers that existed during the 12 month update period or by taking the number of customers that existed in the month of December 2017 as the number of customers that would exist in each month of the year. The following chart summarizes Staff's recommended customer levels:

Actual Number of Customers in Calendar Year 2017	
WEMO:	Residential, Small General Service Commercial, Large General Service (all)
NEMO:	Residential, Small General Service Commercial, Medium General Service Commercial, Large General Service (all)
SEMO:	Residential, Small General Service Commercial, Medium General Service Commercial, Medium General Service Industrial, Large General Service (all)

Number of Customers in December 2017 as Normal Monthly Level	
WEMO:	Medium General Service Commercial
NEMO:	Medium General Service Industrial, Medium General Service Transportation
SEMO:	Small General Service Transportation, Medium General Service Transportation

Staff will continue to review all customer levels through the March 31, 2018, true-up date in this case and will address all such changes as part of its true-up audit.

Staff Witness/Expert: Jason Kunst, CPA

B. Other Revenue Adjustments

1. Removal of Test Year Gas Costs from Revenues and Expense

Liberty Midstates - MO's gas costs are collected through a Purchased Gas Adjustment (PGA) clause, which allows the cost of purchased gas to be passed through to the customers through a surcharge. All components of the PGA are audited annually by the Commission Staff's Procurement Analysis Department as part of Actual Cost Adjustment (ACA) filings.

Staff has made an adjustment to remove all purchased gas costs and revenues incurred in the test year. Liberty Midstates - MO did not include purchased gas revenues or expenses in its direct filing and is not seeking recovery of these costs in this proceeding.

Staff Witness/Expert: Jason Kunst, CPA

2. Infrastructure System Replacement Surcharge ("ISRS") Reconciliation

As a result of its previous ISRS cases, GO-2015-0350 and GO-2016-0206, Liberty Midstates - MO was authorized to collect approximately $470,184 in ISRS revenues on a total company basis. Commission rule 4 CSR 240-3.265(17) requires a natural gas utility, on an annual basis, to reconcile the differences between the revenues resulting from the ISRS and the appropriate pretax revenues as found by the Commission for that period, and to submit a reconciliation and proposed ISRS rate schedule revisions to the Commission for approval to recover or refund the difference, as appropriate. Since the time of the June 10, 2016, effective date of the ISRS surcharge established in Case No. GO-2016-0206, Liberty Midstates - MO has not filed the required reconciliation. Instead, Liberty Midstates - MO filed direct testimony in the current rate case seeking to recover the under-collected ISRS amounts in this proceeding. Staff opposes this approach, and instead recommends that Liberty Midstates - MO perform the ISRS reconciliation as part of its first ISRS filing following the current rate case.

Staff Witness/Expert: Jason Kunst, CPA

3. **Removal of ISRS Revenues**

Liberty Midstates - MO currently collects ISRS revenue through a Commission approved surcharge that was last determined in Case GO-2016-0206. During a rate case, ISRS investment and related costs are included in the cost of service calculation to determine permanent rates, and the ISRS surcharge is reset to zero. Staff has removed the ISRS revenues that were collected in the test year from its cost of service calculation.

Liberty Midstates - MO has chosen to reflect annualized revenues in its presentation of total test year revenues and annualized revenues based upon the ISRS that was in effect at the time of its original direct filing. Staff does not perceive in this proceeding an issue between itself and Liberty Midstates - MO regarding ISRS revenues or the design of base rates as they relate to ISRS. The difference between the Company and Staff is merely in the presentation of the calculated revenue deficiency. Liberty Midstates - MO's presentation of revenue deficiency reflects a rate increase above the currently authorized collection of permanent rates and ISRS revenue. The effect of Liberty Midstates - MO's presentation understates the actual increase in permanent rates that is required and erroneously assumes that all authorized ISRS collections will automatically be reflected in permanent rates in any given rate case. The ISRS collection is an "interim" revenue collection that is not part of permanent rates until authorized for inclusion by the Commission in a rate case. Therefore, it is Staff's position that it is more appropriate to present a revenue deficiency that reflects a rate increase only above existing permanent rates. In the future, Staff recommends that Liberty Midstates - MO present the percentage of rate increase requested based upon a calculation of the increase in permanent rates.

Staff Witness/Expert: Jason Kunst, CPA

4. **Unbilled Adjustment**

Liberty Midstates – MO records unbilled revenue on its books to recognize the sales of gas that have occurred, but have not yet been billed to the customers. Staff has removed unbilled revenues in its computation of annualized revenues in order to accurately determine a normalized and annualized level of revenue to include in the revenue requirement calculation.

Staff Witness/Expert: Jason Kunst, CPA

5. Revenue - Weather Normal Variables Used for Weather Normalization

Natural gas usage and revenue vary from year to year based on weather conditions. The temperature pattern in the test year is the primary determinant for weather-sensitive customers' gas usage and the Company's revenue in the test year. Each year's weather is unique, so rates for weather-sensitive customer classes must be based on test year usage and revenue adjusted to a level commensurate with "normal" weather conditions, rather than actual test year usages and revenue.

a) Weather Variables

Staff obtained weather data from the Midwest Regional Climate Center (MRCC).[12] Kansas City International Airport ("MCI") weather data was used for the WEMO division, while the Kirksville ("KIR") weather data was used for the NEMO division. The Cape Girardeau Airport ("CGI") weather data was used for the SEMO division. The weather data sets consist of actual daily maximum temperature ("T_{max}") and daily minimum temperature ("T_{min}") observations. Staff used these daily temperatures to develop a set of normal mean daily temperature ("MDT")[13] values.

Natural gas sales are predominantly influenced by "ambient air temperature,"[14] so MDT and the derivative measure, heating degree days ("HDD"),[15] are the measures of weather used in adjusting test year natural gas sales. HDDs were originally developed as a weather measure that could be used to determine the relationship between temperature and gas usage. HDDs are based on the difference of MDT from a comfort level of 65°F. HDDs are calculated as the difference between 65°F and MDT when MDT is below 65°F, and are equal to zero when MDT is above 65°F.

b) Normal Weather

According to the National Oceanic and Atmospheric Administration ("NOAA"), a climate "normal" is defined as the arithmetic mean of a climatological element computed over

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[12] http://mrcc.isws.illinois.edu/CLIMATE/.

[13] By National Climatic Data Center convention, MDT is average of daily maximum temperature (T_{max}) and daily minimum temperature (T_{min}) e.g. MDT = (T_{max} + T_{min}) /2.

[14] Ambient air temperature is the outside temperature of the surrounding air without taking into account the humidity or wind in the air.

[15] Where MDT < 65°F, HDD = 65 – MDT; otherwise, HDD = 0.

three consecutive decades.[16] In developing climate normal temperatures, the NOAA focuses on the monthly maximum and minimum temperature time series to produce the serially-complete monthly temperature ("SCMT") data series.[17]

Staff utilized the SCMT published in July 2011 by the National Climatic Data Center ("NCDC") of the NOAA. For the purposes of normalizing the test year gas usage and revenues, Staff used the adjusted T_{max} and T_{min} daily temperature series for the 30-year period of January 1, 1987, through December 31, 2016, at MCI, KIR, and CGI. The series are consistent with NOAA's SCMT during the most recent NOAA 30-year normal period ending 2010.

There may be circumstances under which inconsistencies and biases in the 30-year time series of daily temperature observations occur, (e.g. such as the relocation, replacement, or recalibration of the weather instruments). Changes in observation procedures or in an instrument's environment may also occur during the 30-year period. The NOAA accounted for documented and undocumented anomalies in calculating its SCMT.[18] The meteorological and statistical procedures used in the NOAA's homogenization for removing documented and undocumented anomalies from the T_{max} and T_{min} monthly temperature series is explained in a peer-reviewed publication.[19]

Subsequent to determining the homogenized monthly temperature time series described above, the NOAA also calculates monthly normal temperature variables based on a 30-year normal period, e.g. maximum, minimum, average temperatures, and HDDs. These monthly normals are not directly usable for Staff's purposes because the NOAA daily normal temperatures and HDD values are derived by statistically "fitting" smooth curves through these monthly values. As a result, the NOAA daily normal HDD values reflect smooth transitions between seasons and do not directly relate to the 30-year time series of MDT as used by Staff.

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[16] Retrieved on October 17, 2013, https://www ncdc.noaa.gov/data-access/land-based-station-data/land-based-datasets/climate-normals.

[17] Retrieved on October 17, 2013, http://www1 ncdc.noaa.gov/pub/data/normals/1981-2010/source-datasets/.The SCMT, computed by the NOAA, includes adjustments to make the time series of daily temperatures homogeneous.

[18] Arguez, A., I. Durre, S. Applequist, R. S. Vose, M. F. Squires, X. Yin, R. R. Heim, Jr., and T. W. Owen, 2012: NOAA's 1981-2010 U.S. Climate Normals: An Overview. Bulletin of the American Meteorological Society, 93, 1687-1697.

[19] Menne, M.J., and C.N. Williams, Jr., (2009) Homogenization of temperature series via pairwise comparisons. *J. Climate*, **22**, 1700-1717.

However, in order for Staff to develop adjustments to normal HDD for gas usage, Staff must calculate a set of normal daily HDD values that reflect the actual daily and seasonal variability.

Staff used a ranking method to calculate normal weather estimates of daily normal temperature values, ranging from the temperature that is "normally" the hottest to the temperature that is "normally" the coldest, thus estimating "normal extremes." Staff ranked MDTs for each month of the 30-year history from hottest to coldest and then calculated the normal daily temperature values by averaging the ranked MDTs for each rank, irrespective of the calendar date. The ranking process results in the normal extreme being the average of the most extreme temperatures in each month of the 30-year normals period. The second most extreme temperature is based on the average of the second most extreme day of each month, and so forth. Staff's calculation of daily normal temperatures is not the same as NOAA's calculation of smoothed daily normal temperatures because Staff calculated its normal daily temperatures based on the rankings of the actual temperatures of the test year, and the test year temperatures do not follow smooth patterns from day to day. More details of a ranking method for normal weather are explained in a peer-reviewed publication.[20] Using these normal daily temperatures, Staff calculated normal HDD for each day of the test year. This information was made available to Staff witness Jose R. Perez to calculate the weather normalization adjustments.

Staff Witness/Expert: Seoung Joun Won, PhD

6. <u>Revenue – Weather Normalization</u>

a) Introduction and Summary

Since the primary use of natural gas in Missouri is for the purpose of space heating, natural gas sales are heavily dependent upon weather conditions. As natural gas rates are based on usage, it is important to remove abnormal weather influences from the test year in order to provide a more accurate representation of "normal" natural gas usage. This analysis addresses Staff's weather-normalization of natural gas sales for Liberty Midstates - MO customers.

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[20] Won, S. J., Wang, X. H., & Warren, H. E. (2016). Climate normals and weather normalization for utility regulation. Energy Economics, 54, 405-416.

b) Liberty Midstates – MO Weather Normalization Adjustment

Staff conducted an analysis of weather normalization for the Residential, Small General Service, and Medium General Service classes for the test year ending December 31, 2017.[21] Staff's weather normalization analysis of Liberty Midstates – MO gas sales in Ccfs resulted in an adjustment to the Ccfs to increase the natural gas sales. This adjustment to the Ccfs was necessary because the weather during the test year was warmer than normal. A summary of the adjustments can be found on Table 1. These adjustments account for changes in sales due to abnormal weather and the annual number of days in the billing cycles.

Table 1

Region	Class	Adjustment
NEMO	Residential	16.23%
NEMO	Small General Service	16.52%
NEMO	Medium General Service	13.96%
SEMO	Residential	22.33%
SEMO	Small General Service	23.17%
SEMO	Medium General Service	15.91%
WEMO	Residential	18.78%
WEMO	Small General Service	19.01%
WEMO	Medium General Service	19.24%

c) Process Used to Weather Normalize Sales

Staff adjusted billing units for each class to account for customers who switched between rate classes during the test year and to account for known and measurable changes to rate classes during the test year and update periods. Staff's weather normalized adjustments of natural gas sales account for deviations from what are considered normal weather conditions that occurred during the test year. Staff adjusted monthly natural gas volumes to normal by first adjusting the annual number of days for each billing cycle to 365. If the annual number of days in a billing

[21] Large General Service was not found to be weather sensitive and therefore is excluded from this portion of the analysis.

cycle is below or above 365, Staff added or subtracted the difference to the non-heating season.[22] This adjustment is performed so that each billing cycle is set to the same total number of days. Since natural gas utilities are winter peaking, any "HDDs" that are removed based on the 365 day adjustment are added back to October, since it is a shoulder month to the heating season. Using the shoulder month, which is the non-heating month immediately preceding the heating season, minimizes the impact on the heating season.

After each billing cycle is adjusted so that it contains the proper number of days, the next step is to calculate the difference between normal and actual HDDs for each billing cycle. Staff multiplied these differences by the estimate rendered from the regression analysis, described in further detail below, to determine the changes in sales volumes in each billing cycle due to abnormal weather. Next, Staff summed up each of the changes in sales volumes per month due to abnormal weather. Lastly, Staff added the monthly adjustments in sales volumes to the total monthly natural gas sales to calculate the normalized volumes.

d) Application of Weather Normalization Process

Staff witness Dr. Seoung Joun Won provided the daily actual and daily normal HDDs for Liberty Midstates - MO. Dr. Won addresses the calculation of HDDs as part of his section of this Cost of Service Report.

Liberty Midstates - MO has established billing cycles for groups of natural gas accounts where each billing cycle corresponds to different days of the month. Customers' accounts are usually grouped into one of nineteen (19) billing cycles. Staggering the billing of customers' accounts throughout the billing month allows the Company to distribute the work required in order to bill Liberty Midstates - MO customers. Based on the number of customers, usage, and HDD per billing cycle per month, Staff calculated the average use per customer per day and the number of HDD per day for each of the twelve months of the test period for the rate classes mentioned above for Liberty Midstates - MO.

Staff used a regression analysis to estimate the relationship between the usage per customer per day and the HDD per day for each month. Once the billing cycles were adjusted, Staff calculated the difference between normal and actual HDDs for each billing cycle. The third

[22] Since it cannot be determined exactly which day is causing the annual number of days to be over or less than 365 days, adding or removing an average non-heating season day results in an adjustment with the lesser impact compared to an average heating season day.

step was to multiply these differences by the estimate rendered from the regression analysis. The fourth step was to sum the billing cycles' adjusted volumes by billing month. Then, Staff added the monthly adjustments in ccfs to the total monthly natural gas sales to calculate normalized volumes.

The billing month averages are calculated from the data provided by the utility on the numbers of customers, natural gas usage, and summed HDD from each of the nineteen (19) billing cycles for each billing month by customer class. The daily average HDD in each billing month and billing cycle is weighted by the percentage of customers in that billing cycle. Thus, the billing cycles with the most customers are given more weight when computing the daily average HDD for the billing month. Staff uses the twelve monthly average-usage-per-customer amounts across the billing cycles to calculate the daily average usage for one month. The usage and weather billing month averages are used to study the relationship between space-heating natural gas usage and cold weather, which is used to estimate the change in usage related to a change in HDD.

Staff uses regression analyses to estimate the relationship for each class of customers. The regression equation develops quantitative measures that describe the relationship between daily space-heating sales per customer in Ccf to the daily HDD. The regression equation estimates a change in the daily natural gas usage per customer whenever the daily average weather changes by HDD.

Staff recommends that the Commission utilize Staff's weather normalization adjustments that are outlined above.

Staff Witness/Expert: Jose R. Perez

C. Interruptible Large Volume Customer Adjustments

Liberty Midstates - MO provided monthly billing units and information for every customer who took service on the Interruptible Large Volume Gas Service ("IN"), rate schedules during the test year. Staff used these units as the basis of its analyses and adjustments. Staff has included the following adjustments:

1. Interruptible Large Volume Customer Rate Switching

The general intent of an annualization is to re-state the test year usage as if conditions known at the end of the update period had existed throughout the entire year. Rate switching[23] and annualization adjustments include adjustments for new customers, the exit of existing customers, and load growth or decline of specific existing customers.

If a customer was in a rate class at the beginning of the test year, then transferred to a different rate class during the test year, the customer's billing determinants and associated revenues in the original class were removed from that class' total. The customer's billing determinants were then "priced out" using the tariffs of the class to which the customer switched, and those determinants and revenues were added to the totals in the new class. This provides Staff with a full year of history for the customer in the rate class they were in at the end of the year.

For new customers with no prior usage, an estimated level of usage was applied in order to have 12 months of data.

During the ordered test year[24] for this proceeding there was only one customer who left the SEMO Interruptible class.

2. Large Customer 365-Day Adjustment

The number of days in a customer's bill cycle may or may not include 365 days. For the Interruptible Service class, Staff made adjustments to customers' monthly usage for customers whose test year does not include exactly 365 days, either by adding the appropriate number of days of average usage when there were fewer than 365 days of usage, or by subtracting the appropriate number of days of average usage when there were more than 365 days of usage.

Staff Witness/Expert: Joseph P. Roling

D. Other Revenues

Liberty Midstates - MO collects revenues for items such as late payment charges, rents, non-sufficient funds check charges, disconnect and re-connect revenues, and other miscellaneous

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[23] Rate switching is when customers switch which rate schedule they will be served on during the test year or update period.

[24] Staff did receive updated Liberty Midstates - MO Interruptible customer information through November 2017.

items. Staff has reviewed the historical levels of other revenues and has accepted the test year level as the annualized level. Staff will continue to review these revenue items through the true-up period in this case and may propose changes.

Staff Witness/Expert: Jason Kunst, CPA

E. Payroll and Benefits

1. <u>Payroll Expense</u>

Liberty Midstates - MO's payroll expense includes the wages and salaries paid to the employees who work locally in each of the three rate districts, in addition to corporate allocated wages and salaries that represent work performed that directly or indirectly benefits Liberty Midstates - MO and its ratepayers in each rate district. Staff has annualized payroll expense for the test year ending June 30, 2017, and has included all known and measurable changes through the December 31, 2017, update period. Staff has made adjustments that take into account the following: a) all known changes in employee levels and wage increases that have occurred during the test year and update period including the June 1, 2017, union based wage increase; b) inclusion of an annualized level of overtime that occurred during calendar 2017; and, c) all appropriate wage and salary increases for non-union and management employees effective through December 31, 2017. Staff will continue to review and incorporate all appropriate known and measurable changes for payroll expense that occur through the March 31, 2018, true-up audit cutoff. In addition, Staff notes that Liberty Midstates - MO has requested that a union wage rate increase that will occur on June 1, 2018, be included in the cost of service calculation as part of the true-up audit. Staff may incorporate this union wage rate increase as part of its true-up audit, assuming union employee levels are expected to remain stable through the June 1, 2018, time period. However, Staff may also take into account other changes in other relevant factors that could also occur through June 1, 2018.

Staff Witness/Expert: Asad A. Shakoor

2. <u>Payroll Taxes</u>

Payroll tax expense represents the taxes that are paid by the employer and include the following: Federal Insurance Contributions Act (FICA) taxes; Old Age, Survivors and Disability Insurance (OASDI) taxes; FICA Medicare (Medicare) taxes; Federal Unemployment Tax Act

(FUTA) taxes; and State Unemployment Tax Act (SUTA) taxes. Staff has annualized payroll taxes by applying the appropriate tax rates and applicable tax caps to the annualized employee payroll that Staff calculated at the update period ending December 31, 2017. Staff plans to review and true-up payroll taxes for each separate Liberty Midstates - MO rate district to reflect all changes in payroll expense, payroll tax rates, and payroll tax caps that are appropriate for inclusion in the true-up cost of service calculation.

Staff Witness/Expert: Asad A. Shakoor

3. **Employee Benefits**

Liberty Midstates - MO offers an employee benefits package including medical, dental, vision, life insurance, long-term disability, short-term disability, and a 401(k) retirement savings plan. ** ______________________________ **

Liberty Midstates - MO also has several retired employees that are receiving medical benefits. Along with active employees, Staff has annualized each of these employee benefits' costs, based upon all known and measurable changes that have occurred through the update period, ending December 31, 2017. As part of its true-up audit, Staff will continue to review all changes in costs and employee levels and will update its annualization to reflect all known and measurable changes through March 31, 2018.

Staff Witness/Expert: Asad A. Shakoor

4. **Incentive Compensation and Bonuses**

Liberty Midstates has three forms of incentive compensation. The first type is the long term incentive plan (LTIP), ** ______________________________ **. The second type is the short-term incentive plan (STIP), ** ______________________________ **. The third type of incentive compensation is the shared bonus pool (SBP), ** ______________________________ **.

a. **Long-Term Incentive Plan (LTIP)**

** ____

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b. **Short-Term Incentive Plan (STIP)**

** ____

**

c. Shared Bonus Pool (SBP)

** **

d. Variable Pay Plan (VPP)

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Incentive Compensation is labor-related; and all labor-related costs include an expense amount as well as an amount that is capitalized. For all equity based amounts mentioned above that are being removed by Staff, an adjustment will be made to expense accounts, but there will also be a proportionate amount removed from plant and depreciation reserve. This capitalized plant and reserve amounts will be removed for the period of the true-up cutoff date in the last rate case (March 31, 2014), of which the rate base was stipulated and agreed to, through the true up cutoff date in the current rate case.

Staff still requires additional data and data request responses from the Company to calculate the exact capitalized and expensed incentive compensation and further review of this issue is necessary through the true up cutoff of March 31, 2018 in this case.

Staff Witness/Expert: Lisa M. Ferguson

5. **Pensions and Other Post-Employment Benefits Costs**

Within its direct filing, Liberty Midstates posted adjustments to reflect increased expense for pensions and Other Post-Employments Benefits ("OPEB") expense. The Company's adjustments were based upon 2017 actuarial valuation estimates, and reflect a proforma or ongoing level of pensions and OPEB expense expected to be incurred based upon the latest actuarial estimates, plus amortization of under recovered pensions and OPEB costs that Liberty Midstates - MO has experienced since Liberty Midstates - MO Case No. GR-2014-0152. Pursuant to a stipulation approved within Liberty Midstates - MO Case No. GR-2014-0152, Liberty Midstates - MO has been deferring within a Regulatory Asset account the difference between pensions and OPEB expense being collected in rates *and* the level of actuarially-determined pensions and OPEB expense that Liberty Midstates - MO has experienced since the last rate case.

Staff has posted pensions and OPEB expense adjustments that are identical to those that were proposed by Liberty Midstates within its original application. However, when the 2017 actuarial valuation of the plans are complete, Staff will revise and update the pensions and OPEB expense adjustments being presented with this Staff Report.

Under the terms of Accounting Standards Update No. 2017-07 Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Costs, issued by the Financial Accounting Standards Board ("FASB"), for annual periods beginning after December 15, 2017, only the "service cost component" of pensions and OPEB costs will be eligible for capitalization. Under previous FASB standard, all elements of pensions and OPEB costs were eligible for capitalization. Staff has held discussions with Liberty Midstates' rates and accounting personnel wherein the Company indicated its desire to follow the new FASB capitalization standards for ratemaking and accounting purposes. Staff does not oppose following the FASB pensions and OPEB capitalization standards for ratemaking and accounting purposes. Accordingly, when final 2017 actuarial valuations with revised net periodic pension costs are received, Staff will revise/update the pensions and OPEBs expense adjustments included with this Staff Report, and also reflect the new capitalization policy for pensions and OPEBs as recently endorsed by the FASB.

Staff Witness/Expert: James R. Dittmer

F. Other Expenses

1. <u>Advertising Expense</u>

In forming its recommendation of the allowable level of Liberty Midstates - MO's advertising expense, Staff relied on the principles it has consistently applied when analyzing advertising expense, by adhering to the Commission's decision in: re: *Kansas City Power and*

Light Company, Case Nos. EO-85-185, et al., 28 Mo. P.S.C. (N.S.) 228, 269-71 (1986). In that case, the Commission adopted an approach that classifies advertisements into five categories and provides rate treatment of recovery or disallowance based upon a specific rationale. The five categories of advertisements recognized by the Commission in that case are as follows:

> a. General: informational advertising that is useful in the provision of adequate service;
>
> b. Safety: advertising which conveys the ways to safely use electricity [gas] and to avoid accidents;
>
> c. Promotional: advertising used to encourage or promote the use of electricity [gas];
>
> d. Institutional: advertising used to improve the company's public image; and
>
> e. Political: advertising associated with political issues.

The Commission adopted these categories of advertisements explaining that a utility's revenue requirement should: 1) always include the reasonable and necessary cost of general and safety advertisements; 2) never include the cost of institutional or political advertisements; and 3) include the cost of promotional advertisements only to the extent that the utility can provide cost-justification for the advertisement (Report and Order in KCPL Case Nos. EO-85-185, et al., 28 Mo. P.S.C. (N.S.) 228, 269-271 (April 23, 1986)).

Staff reviewed advertising performed during the test year at both the Liberty Midstates - MO local level (Missouri districts), as well as all corporate level advertising for which costs were allocated to Liberty Midstates - MO. Staff allowed all costs for safety advertising and general advertising. Staff found no evidence that Liberty Midstates - MO incurred any political advertising costs through an allocation from the corporate level or at the local level during the test year. Staff determined several instances of institutional advertising in the test year. Some of the institutional advertising costs were allocated to Liberty Midstates - MO while the remainder was incurred at the local level. Liberty Midstates - MO received an allocated cost for the placement of one promotional advertisement during the test year. In response to Staff Data Request No. 0048, Liberty Midstates - MO indicated that it had not conducted any analysis to determine whether or not the advertisement was cost-justified. Therefore, Staff has adjusted the cost of service to exclude any advertising costs related to promotional and institutional advertising.

Staff Witness/Expert: Paul K. Amenthor

2. Rate Case Expenses

Summary of Staff's Recommendation

Utility companies incur various expenses in the preparation and presentation of a rate case before the Commission. Included in these costs are expenses for outside counsel, expert witnesses, and miscellaneous expenses for items such as travel expenses and copying costs.

a. Normalization

Staff has reviewed Liberty Midstates - MO's rate case related expenses related to this current case for reasonableness and prudence for all of the services and costs incurred. Staff has calculated a normalized level of expense to include in its cost-of-service calculation based on costs incurred through December 31, 2017, to be normalized over four years. This approximates the interval of time between dates that Liberty Midstates - MO filed its prior rate case (Case No. GR-2014-0152) and the current rate case.

Staff will continue to review Liberty Midstates - MO's incurred rate case expenses for prudence and reasonableness as the case progresses, as Staff's calculations of a normalized level of expense based on incurred costs are ongoing. Staff will review expenses incurred through the filing of the true-up reply brief date on June 29, 2018, in this case. Staff requests that the Company provide all documentation of rate case expense no later than two weeks after the true-up reply brief date above. Due to the late stage of the rate case process at that point, any documentation provided by Liberty Midstates - MO after this date expires will not be considered by Staff, regardless of when the expense was incurred.

b. Sharing Recommendation

In the Staff Investigative Report on Rate Case Expense ("Report") filed in Case No. AW-2011-0330 in September 2013, Staff examined recent trends in incurred rate case expense and made recommendations regarding ongoing policies for utility recovery of rate case expenses. Staff made an assertion in the report that rate case expense can be beneficial to both a utility's ratepayers and shareholders. In the Report, Staff noted that the practice of granting the full recovery of rate case expense to utilities does not incentivize them to limit their expenditures in that area. Additionally, Staff expressed concern that allowing the full recovery of expenses gives utility companies a financial advantage over other parties within the case who must operate within budgets or other financial restrictions. It was Staff's conclusion in the Report that "structural incentives measures" be implemented in order to incentivize utilities to limit rate case expense.

One of the options suggested by Staff in the Report was for rate case expense to be shared between shareholders and ratepayers according to the percentage of the utility's rate increase that is ultimately awarded by the Commission. That is the approach that Staff is recommending in this case to annualize rate case expense. By using this approach, ratepayers, who benefit by ensuring they receive safe and adequate service for just and reasonable rates, are only assigned costs that they receive a benefit from and that are reasonable. Additionally, it reduces the significant financial advantage that Liberty Midstates – MO has over the participants and incentivizes them to control their expenditures.

In the Report and Order in ER-2014-0370, the Commission stated the following:

> The Commission finds that in order to set just and reasonable rates under the facts in this case, the Commission will require KCPL shareholders to cover a portion of KCPL's rate case expense. One method to encourage KCPL to limit its rate case expenditures would be to link KCPL's percentage of recovery of rate case expense to the percentage of its rate increase request the Commission finds just and reasonable. The Commission determines that this approach would directly link KCPL's recovery of rate case expense to both the reasonableness of its issue positions and the dollar value sought from customers in this rate case.
>
> The Commission concludes that KCPL should receive rate recovery of its rate case expenses in proportion to the amount of revenue requirement it is granted as a result of this Report and Order, compared to the amount of its revenue requirement rate increase originally requested.

More recently in Case Nos. GR-2017-0215 and GR-2017-0216,[25] the Commission included the following in the Report and Order:

> In one sense, rate case expense is like other common operational expenses that a utility must incur to provide utility services to customers. Since customers benefit from having just and reasonable rates, it is appropriate for customers to bear some portion of the utility's cost of prosecuting a rate case. However, rate case expense is also different from most other types of utility operational expenses, in that 1) the rate case process is

[25] In these cases, the Commission ordered a 50/50 equal sharing of most rate case expenses for the utilities, in lieu of using the percentage of the rate increases granted to the rate increases sought.

> adversarial in nature, with the utility on one side and its customers on the other; 2) rate case expense produces some direct benefits to shareholders that are not shared with customers, such as seeking a higher return on equity; 3) requiring all rate case expense to be paid by ratepayers provides the utility with an inequitable financial advantage over other case participants; and 4) full reimbursement of all rate case expense does nothing to encourage reasonable levels of cost containment.
>
> Under Missouri law, the Commission must set just and reasonable rates, and rates in this case, that include all of the utility's rate case expense, for the reasons set forth above, are not just or reasonable. However, the Commission determines that it is just and reasonable for ratepayers and shareholders to share rate case expense.

Based upon the recent guidance from the Commission and the evidence and circumstances in the current rate case, Staff is recommending that rate case expense be shared by Liberty Midstates - MO's ratepayers and shareholders by utilizing the method that was ordered by the Commission in ER-2014-0370. Staff is recommending that the percentage of rate case expense that will be borne by the ratepayers be equal to the percentage of the Company's initial rate request that is ultimately awarded by the Commission, subject to the exceptions for costs discussed below[26].

As an alternative, Staff is not opposed to assignment of rate case expense to customers and shareholders on an equal 50/50 basis in this case, as the Commission recently ordered in Case Nos. GR-2017-0215 and GR-2017-0216, subject to the exceptions for costs discussed below.

Staff is not including the Commission required depreciation study or the lead/lag study that was agreed to in the stipulation and agreement in the prior case, GR-2014-0152, in the rate case expense sharing recommendation. Consistent with the Commission's guidance in GR-2017-0215 and GR-2016-0215, Staff proposes to normalize the cost of the depreciation study over five years which represents the interval for which Liberty Midstates - MO was required to complete such analysis. Staff also proposes to normalize the costs associated with the lead/lag study over four years. Further, Staff would expect that Liberty Midstates - MO will perform the lead/lag study internally in its next general rate case, without the assistance of an

[26] Liberty Midstates - MO has not provided Staff with any costs for rate case required customer notices through the December 31, 2017, update period, per the guidance of the Commission in GR-2017-0215 & GR-2017-0216, Staff will not include those costs in the sharing mechanism.

external consultant. Staff recommends that the depreciation study be recovered over a five-year normalization and that the lead/lag study be recovered over a four-year normalization.

Additionally, Staff has made an adjustment to remove the rate case expense that was recorded during the test year for the previous rate case, GR-2014-0152. The prior rate case expense was fully recovered as of December 31, 2017.

Staff Witness/Expert: Jason Kunst, CPA

3. <u>Rent and Lease Expense</u>

During the test year ending June 30, 2017, Liberty Midstates - MO incurred rent and lease expenses for various buildings and equipment items that are necessary in the provision of service to its customers. Staff annualized rent and lease expenses to reflect all contractual changes in rent and lease expense that have occurred through the December 31, 2017, update period. Staff will re-examine all rent and lease expense through the March 31, 2018, true-up cutoff in this case and will include all appropriate changes in the true-up cost of service calculation.

Staff Witness/Expert: John P. Cassidy

4. <u>Outside Services</u>

Staff has reviewed the invoices and contracts for services provided to Liberty Midstates - MO by third party vendors during the test year. Staff has evaluated the appropriateness of all such charges and has proposed an adjustment to remove certain outside services related to lobbying and legislative activities.

Staff Witness/Expert: Jason Kunst, CPA

5. <u>Insurance Expense</u>

Insurance expense is the cost paid to third party insurers for protection against the risk of financial loss associated with unanticipated events or occurrences. Utilities, like non-regulated entities, routinely incur insurance expense in order to minimize their liability (and, potentially, that of their customers) associated with unanticipated losses. Insurance traditionally consists of the following types of coverage:

- Directors’ and Officers’ Liability Insurance;
- Workers’ Compensation - covers all employees;

- General and Excess Liability – all liability claims against the company;
- Property – covers tangible property; and
- Fiduciary Liability – general coverage including theft, forgery, fraud, terrorism, etc.

As insurance is an ongoing and normal expense of a utility, Staff has reviewed all insurance policies and adjusted test year insurance costs to reflect all annual premiums that were in effect at December 31, 2017. As part of Staff's true-up audit, Staff will update its numbers to reflect all changes to annual premiums that will be in effect through March 31, 2018.

Staff Witness/Expert: Paul K. Amenthor

6. <u>Dues and Donations</u>

Staff reviewed all costs associated with membership dues paid and donations made to various organizations during the test year ending June 30, 2017. Staff's review included all costs incurred at each of the three local Missouri rate districts as well as costs allocated to the districts from the corporate level. Staff reviewed expenditures for all memberships, dues, and donations to determine if the cost was duplicative or provided no ratepayer benefit. Staff's review is consistent with the guidance provided by the Commission for these types of items.

In *Re: Missouri Public Service, a Division of UtiliCorp United, Inc.*, Case Nos. ER-97-394, et al., Report and Order, 7 Mo.P.S.C.3d 178, 212 (1998), the Commission stated:

> The Commission has traditionally disallowed donations such as these. The Commission finds nothing in the record to indicate any discernible ratepayer benefit results from the payment of these donations. The Commission agrees with the Staff in that membership in the various organizations involved in this issue is not necessary for the provision of safe and adequate service to the MPS ratepayer.

Staff made adjustments to disallow various dues and donations that were incurred by Liberty Midstates – MO during the test year because they were not necessary for the provision of safe and adequate service, and to prevent customers from becoming involuntary contributors to organizations that engage in lobbying activities or otherwise that provide no benefit to ratepayers.

Staff Witness/Expert: Paul K. Amenthor

7. **Property Tax Expense**

For property assessment purposes, each utility company is required to file with its respective taxing authority a valuation of utility property at the beginning of each assessment year, January 1st. Several months later, based on information provided by the utility, the taxing authority will send the company "assessed values" for every category of the company's property. The taxing authority will issue the utility company a property tax rate later in the year. Ultimately, the taxing authority issues a property tax bill to the company late in each calendar year with a "due date" of December 31. The billed amount of property taxes is based on the property tax rate applied to the previously determined assessed values of the utility's plant-in-service balances as of January 1 of the same year.

Staff developed its property tax amount based on the Company's actual taxes paid as of December 31, 2017, which were paid based on investment as of January 1, 2017. In addition, Staff has included a level of corporate allocated property tax in its annualized amount. However, Staff has not included a property tax amount for Liberty Midstates - MO's new automated meter reading (AMR) devices outside of the devices that were installed in NEMO approximately a year ago because they were either installed in 2017 or have yet to be installed. Staff has also not included property tax on the new building that is currently being constructed in Hannibal, Missouri as it is not currently in service. The new vehicles and main replacements either came into service during 2017 or will come into service in 2018. Staff's rate base calculations include all investment additions through December 31, 2017, and will be updated through March 31, 2018, as part of Staff's true up audit. However, Liberty Midstates - MO has yet to be assessed for real estate/property tax purposes for plant in service subsequent to January 1, 2017. Liberty Midstates - MO will not receive a bill for a known and measurable property tax amount on new investments until the end of 2018 for those items in service at the end of 2017. However many of the AMR meter devices and Hannibal building were not in service as of January 1, 2018 and will more than likely not be assessed until the beginning of 2019.

Staff also does not recommend a tracker for recovery of Liberty Midstates - MO's property taxes due to the fact that these costs are not extraordinary as they are incurred every year and are not volatile.

Staff Witness/Expert: Lisa M. Ferguson

8. Uncollectibles

Uncollectible, or "bad debt expense," is the amount of retail revenues that Liberty Midstates - MO is unable to collect from retail customers. After a certain amount of time, these uncollected revenues are "written off" and given to a third party for collection. Through third party collection, Liberty Midstates - MO is sometimes able to recover a portion of the amounts that are written off. The amounts collected from the third party collection agencies are netted with the written off accounts in a given period to determine "net write-offs."

Staff traditionally determines the amount of uncollectable expense to include in rates by analyzing the actual net write-offs over a period of time. Staff has made an adjustment to annualize the amount of uncollectable expense to include in rates by reflecting the actual net write-offs that occurred in the 12 months ending December 31, 2017. Staff will continue to review the actual net-write offs incurred by Liberty Midstates – MO as part of its true up audit.

In his direct testimony, Liberty Midstates - MO's witness Robert B. Hevert proposes to implement a bad debt tracker. Staff does not believe a bad debt expense tracker is necessary and will address Liberty Midstates - MO's proposal in rebuttal testimony.

Staff Witness/Expert: Jason Kunst, CPA

9. PSC Assessment

The MoPSC Assessment is an amount billed to all regulated utilities operating under the jurisdiction of the Commission. The assessment is used to meet the Commission's operating costs for regulating those utilities. Staff's MoPSC Assessment adjustment represents the difference between MoPSC assessment expenses recorded by Liberty Midstates - MO's three Missouri rate districts during the test year and the most recent MoPSC Assessment that is now in effect for each of those three rate districts during fiscal year 2018, for the period covering July 1, 2017 to June 30, 2018.

Staff Witness/Expert: Paul K. Amenthor

10. Postage Expense

In January 2018, the United States Postal Service (USPS) implemented a postage increase. Staff has made an adjustment to annualize Liberty Midstates - MO's postage expense to reflect the increase in the postage rate.

Staff Witness/Expert: Jason Kunst, CPA

11. Utility Costs – New Hannibal Shop

Liberty Midstates - MO has indicated that it will complete construction of its new Hannibal Shop by March 31, 2018. Staff will include an annualized level of utilities costs associated with this building, based on actual bills, as part of its true-up cost of service calculation in this case.

Staff Witness/Expert: John P. Cassidy

12. Vegetation Management

As part of the current rate case, Liberty Midstates - MO is requesting cost recovery and tracking of vegetation management or right of way costs. A right of way is the area of land above the pipeline that is used to maintain, inspect, and safely operate the pipeline. In order for there to be safe operation and maintenance of gas pipelines, gas utilities need the right of way to be clear of vegetation so as to access the underground pipeline infrastructure. Easement agreements are the legal means of creating responsibility between the property owners and the pipeline owners. It typically includes language that restricts certain uses of the right of way and creates responsibility of maintaining the land above the pipeline. Trees, large shrubs, and woody-stemmed plants can interfere with the reliability of gas service if the roots damage the underground pipe. In addition, vegetation needs to be cleared for damage prevention as well as safe operation and maintenance of the pipeline. There are several Commission rules that require routine pipeline patrols and leak surveys to assess the safety and integrity of gas pipelines so as to prevent pipeline ruptures.

Liberty Midstates - MO has approximately 4,000 miles of natural gas pipeline, and the right of way for the pipeline is typically 20 feet across. Liberty Midstates – MO is currently on a two-year cycle for vegetation management, though some areas may require clearing every fall due to the speed at which the vegetation grows in that area. The majority of vegetation management costs have occurred in the Southeast Missouri (SEMO) district.

In the current case, Staff has normalized the cost of vegetation management as of December 31, 2017. Staff has remaining data requests outstanding and will review the Company responses to those data requests as well as the costs through the true up period in this case.

Staff does not believe a vegetation management tracker is necessary as they are not extraordinary, volatile nor material in nature.

Staff Witness/Expert: Lisa M. Ferguson

13. <u>Miscellaneous Expenses</u>

During the test year, Liberty Midstates - MO incurred numerous miscellaneous costs at various corporate and affiliate levels, which were allocated to each of its three Missouri rate districts. Additionally, Liberty Midstates - MO incurred miscellaneous costs locally at each Missouri rate district level. After reviewing these expenses, Staff made an adjustment to remove travel costs that did not pertain to Liberty Midstates - MO operations and provide no identifiable benefit to Missouri ratepayers.

Staff Witness/Expert: Paul K. Amenthor

14. <u>Energy Conservation and Efficiency Program and Residential Low Income Weatherization Assistance Program</u>

a. Energy Conservation and Efficiency Program

Liberty Midstates - MO Energy Conservation and Efficiency Program ("Efficiency Program") is designed to promote energy conservation, efficiency, and education for Liberty Midstates - MO customers. Funding for the Efficiency Program is $150,000 per year which is collected in base rates, $105,000 of which is annually dedicated to the Residential Low Income Weatherization Assistance Program. The Energy Efficiency Advisory Group, composed of Liberty Midstates - MO, Commission Staff, Office of the Public Counsel and the Missouri Division of Energy, operates as an advisory group that provides input on the design, implementation, and evaluation of the Efficiency Program. The Efficiency Program is intended to benefit all eligible Liberty Midstates - MO residential customers via the funding of certain conservation efforts which are designed to improve energy efficiency within the home and reduce energy consumption. Staff recommends continuation of the Efficiency Program as it is currently structured.

b. Residential Low Income Weatherization Assistance Program

Liberty Midstates - MO Residential Low Income Weatherization Assistance Program ("Weatherization Program") is designed to provide energy education and weatherization assistance to low-income, residential customers to assist customers in reducing their energy consumption and thus reduce their natural gas utility bills. The Weatherization Program is a component of Liberty Midstates - MO Energy Conservation and Efficiency Program ("Efficiency Program"), and receives on an annual basis, $105,000 of the $150,000 funding included in base rates for the Efficiency Program. Staff recommends continuation of the Weatherization Program as it is currently structured.

Staff Witness/Expert: Brad J. Fortson

15. Energy Efficiency Amortizations

Liberty Midstates - MO's existing energy efficiency balance established in the prior rate case, Case No. GR-2014-0152, is being amortized over a six year period beginning in January 2015 and ending in December 2020. Staff proposes no reset for this particular amortization. However, in Liberty Midstates - MO's next rate case further adjustment may be warranted in order to prevent any under-recovery or over-recovery for these energy efficiency costs.

As part of its review in this rate case, Staff discovered that during the test year ending June 30, 2017, Liberty Midstates - MO posted 30 months of amortization expense associated with the energy efficiency regulatory asset balance that was established in Case No. GR-2014-0152. Liberty Midstates - MO posted a "catch-up" adjustment in February 2017 to reflect amortization expense that had not been previously reported during the period covering January 2015 through January 2017. Staff adjusted this test year level of expense to reflect an annual ongoing level of amortization expense for this regulatory asset.

Staff further proposes to amortize the balance of all eligible energy efficiency spending that Liberty Midstates - MO has deferred since the time of its last rate case over six years beginning with the effective date of rates in this case, with the exception of an approximately $17,000 amount that was previously included in the energy efficiency regulatory asset established in the prior rate case. Staff removed this amount from the calculation of the regulatory asset balance to prevent a double recovery for this item. Staff's proposed treatment to amortize this deferred regulatory asset balance over six years is consistent with the terms of the *Revised Partial Stipulation and Agreement As to Certain Issues* in Liberty Midstates - MO's prior rate case, Case No. GR-2014-0152. It is also consistent with the accounting treatment that was described in the *Unanimous Stipulation and Agreement* in the Atmos Energy Corporation rate case, Case No. GR-2010-0192 and that was continued by the aforementioned agreement that was reached in GR-2014-0152.

Staff Witness/Expert: John P. Cassidy

G. Income Taxes

Income tax expense, as calculated by Staff, is largely consistent with the methodology used in Liberty Midstates' previous rate cases, however in this case there will be some differences due to the recent tax reform. On December 22, 2017, President Trump signed into law the US Tax Cuts and Jobs Act ("TCJA") which took effect on January 1, 2018. Staff is attempting to address the known changes in tax reform as part of the normalized tax calculation in this proceeding.

To calculate income tax expense, Staff adjusts the utility's net operating income before taxes by adding to or subtracting from net income various timing differences, in order to obtain net taxable income for ratemaking purposes. These "add back" and/or subtraction adjustments are necessary to identify new amounts for the tax deductions that are different from those levels reflected in the income statement as revenues or expenses. The adjustments are the result of various book versus tax timing differences and the effect of such differences under separate tax ratemaking methods, i.e., flow-through versus normalization. A tax timing difference occurs when the timing used in reflecting a cost (or revenue) for financial reporting purposes (book purposes) is different than the timing required by the IRS in determining taxable income (tax purposes). Current income tax reflects timing differences consistent with the timing required by the IRS. The tax timing differences used in calculating taxable income for computing current income tax are as follows:

Add Back to Operating Income Before Taxes:

- Book Depreciation Expense

Subtractions from Operating Income:

- Interest Expense – Weighted Cost of Debt X Rate Base
- Tax Straight-Line Depreciation
- Excess Tax Depreciation

The tax normalization method defers for ratemaking purposes the deduction taken for tax purposes for certain tax timing differences. The effect of the use of tax normalization is to allow utilities the net benefit of certain net tax deductions for a period of time before those benefits are passed on to the utility's customers in rates. Alternately, the flow-through tax method essentially provides for the same tax deduction taken as a deduction for ratemaking purposes as is taken for tax purposes. Under either the tax normalization or tax flow-through approach, the resulting net taxable income for ratemaking is then multiplied by the appropriate federal, state, and city tax rates to obtain the current liability for income taxes.

Based on the TCJA, a new corporate federal tax rate of 21 percent was applied as well as the ongoing state income tax rate of 6.25 percent in order to calculate Liberty Midstates - MO's current income tax liability. The difference between the calculated current income tax provision and the per book income tax provision is the current income tax provision adjustment.

Liberty Utilities Co. (LUCo) files a consolidated tax return including all of its regulated and non-regulated affiliate enterprises that are based in the United States. LUCo as well as Liberty Midstates - MO are currently in a net operating loss ("NOL") situation. An NOL is a loss taken in a period where a company's allowable tax deductions are greater than its taxable income.

Staff will review income tax expense as part of its true-up audit and make additional adjustments as necessary.

Staff Witness/Expert: Lisa M. Ferguson

H. Depreciation Expense

1. <u>Capitalized Depreciation Expense</u>

Liberty Midstates - MO utilizes transportation and power-operated equipment to perform both maintenance and construction activities. Generally, a portion of the depreciation calculated on this equipment should be capitalized and charged to the associated capital construction project and eventually placed in plant-in-service. In the *Partial Stipulation and Agreement As To Certain Issues*, approved by the Commission as part of the prior rate case, Case No. GR-2014-0152, Liberty Midstates - MO agreed to capitalize certain transportation and power-operated equipment beginning August 1, 2012. Staff has submitted data requests and has received the information needed to confirm that Liberty Midstates - MO has met its commitment. In addition, Staff has learned that Liberty Midstates - MO has capitalized depreciation for buildings that house transportation and power operated equipment. Staff's position is that it is not appropriate to capitalize depreciation for buildings since the buildings are not directly involved in construction activity. Staff has made adjustments to plant-in-service and depreciation reserve to remove capitalized depreciation associated with buildings. Staff has met with Liberty Midstates - MO to discuss this issue and believes that Liberty Midstates - MO is in agreement with Staff's position with regard to capitalized depreciation for buildings. Finally, Staff has removed a portion of the annualized depreciation expense related to transportation and power-operated equipment in order to reflect the portion of this expense that is appropriately capitalized.

Staff Witness/Expert: Jason Kunst, CPA

X. Depreciation

A. Summary of Revenue Impact

Staff conducted a study of the depreciable plant of Liberty Midstates - MO as part of its investigation for Liberty Midstates - MO's rate increase request. Appendix 3 contains Schedule SBM-d1 which lists the Staff-recommended depreciation rates for Liberty Midstates - MO.

Since Staff's recommended depreciation rates are different from those currently being used, Staff is also suggesting a change in depreciation expense. The proposed depreciation expense, based on test year balances, is shown in Accounting Schedule 5.

B. Depreciation

"Depreciation," as applied to depreciable utility plant means:

(a) the loss in service value not restored by current maintenance,

(b) incurred in connection with the consumption or prospective retirement of utility plant in the course of service,

(c) from causes which are known to be in current operation, and

(d) against which the utility is not protected by insurance.

Among the causes to be given consideration are: wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and changes to the requirements of public authorities.[27]

The purpose of depreciation in a regulatory setting is to recover the cost of capital assets over the useful lives of the assets. The depreciation rate assigned to each plant account is designed to recover, over the average service life of the assets in that account, the original cost of the assets, plus an estimate for any cost of removal less scrap value. Annual depreciation expense for a plant account is the depreciation rate for that plant account multiplied by the balance of plant in that account. The annual depreciation expense returns to the Company's shareholders a portion of the costs of the capital assets. In a regulatory setting, this return is commonly referred to as a return *of* capital. The remaining portion of the costs of the capital assets of the Company, known as net plant-in-service, is returned to the Company's shareholders in the future. The Company is permitted during this period to earn a return on the capital assets in rate base, commonly referred to as a return on net plant-in-service, a component of rate base. In a regulatory setting this return is also commonly referred to as a return *on* rate base.

C. Depreciation Study Prepared by Liberty Midstates

Liberty Midstates - MO is required to submit depreciation studies under rule 4 CSR 240-3.235. Liberty Midstates completed a study and Liberty Midstates - MO submitted two reports prepared by Mr. Dane A. Watson of Alliance Consulting Group in June 2016.

The first report corresponds to utility owned property that is part of SSU and is allocated to the three regulated divisions of Liberty Midstates (Liberty Midstates - MO, Liberty Midstates Iowa Division, and Liberty Midstates Illinois Division).[28] The SSU portion of the study utilized informed judgement rather than data to develop depreciation rates because, at the time the study was performed, all property maintained in the SSU was relatively new and no

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[27] National Association of Regulatory Utility Commissioners (NARUC), *Public Utility Depreciation Practices* (Washington, DC: NARUC, 1996), p. 53.

[28] At some point in time, following the preparation of the depreciation study, a Liberty Midstates Central Region was formed. This region consists of the following entities: The Empire District Electric Company, The Empire District Gas Company, Empire District Industries, Inc.; Liberty Utilities (Midstates Natural Gas) Corp.; Liberty Utilities (Pine Bluff Water) Inc.; Liberty Utilities (Woodson-Hensley Water) Corp.; Liberty Utilities (White Hall Water) Corp.; Liberty Utilities (White Hall Sewer) Corp.; Liberty Utilities (Fox River Water) LLC and Liberty Utilities (Missouri Water) LLC.

retirements had yet occurred.[29] The SSU study details depreciable assets put into service on or before September 30, 2015.

The second report details the portion of the depreciation study intended to determine depreciation rates specific to Liberty Midstates - MO. Although intended to establish rates for Missouri property, the study included retirement data from the Iowa and Illinois divisions of Liberty Midstates in addition to the Missouri division. The Missouri study details depreciable assets put into service on or before September 30, 2015, and considers retirements since 2000.[30]

D. Depreciation Study Prepared by Staff

Staff conducted its own depreciation study for the capital assets of Liberty Midstates - MO using the straight-line method, broad group-average life procedure, and whole life technique. Staff used the following formula to calculate depreciation rates for each plant account:

Depreciation Rate = (100% - Net Salvage %) ÷ (Average Service Life)

This equation is consistent with the direction of the Commission in its *Report and Order* in The Empire District Electric Company rate case, Case No. ER-2004-0570. In this equation, average service life is the expected period, in years, that depreciable plant will be in service. Net salvage is the difference between gross salvage (the amount received from the retirement of property) and the cost of removal.

For each account, Staff estimated the average service life and net salvage rate. Staff's recommendation is informed by statistical analysis of plant retirements as described below. Staff also relied on its engineering experience, informed judgment, and previous cases to prepare recommended rates.

Staff used available data from the Liberty Midstates - MO's depreciation study and work papers, and Liberty Midstates - MO's responses to data requests, to prepare estimates of service life and net salvage for each account. Staff conducted statistical analysis of retirements using Gannet Fleming Depreciation Analysis Software to prepare stub survival curves for plant

[29] p. 4, Liberty Utilities Shared Services Unit Depreciation Study, Alliance Consulting Group, 2015.

[30] p. 12, Liberty Mid-States Gas State of Missouri Book Depreciation Accrual Rate Study, Alliance Consulting Group, 2015.

accounts. Survival curves describe the amount of plant in an account, expressed as a percent that is still in service, at various ages. For an account in which all plant is retired, the average service life can be calculated as the area under the curve. Because there is surviving plant in these accounts, the curves produced are partial and are called stub curves.

In order to estimate average service life, Staff fitted an Iowa curve to the stub curve for each account. Iowa curves are model curves widely used among depreciation experts as depictions of the life characteristics of utility plant. Staff also used the Gannet Fleming software to assist in mathematical and visual fitting of the stub curves to Iowa curves. Average service lives for these accounts were drawn from the fitted Iowa curves.

In addition, Staff determined the net salvage rates. This is the net salvage cost, including gross salvage and cost of removal, of retired plant for an account divided by the book cost of that plant.

These estimates of average life and net salvage were used in the equation noted above to ultimately calculate the depreciation rates. In addition to the analysis of statistics, Staff's recommended rates are informed by judgment and relevant previous orders of the Commission.

Data utilized by Staff for this study included retirement data ranging from the 1950's up to September 30, 2015,[31] and salvage data for the years 2005 to 2010 and 2013 to 2017. In addition, Staff received additional data via Liberty Midstates – MO's responses to Staff's Data Requests for retirements that occurred between October 1, 2015 and December 31, 2017. Staff intended to use this additional data to provide an updated recommendation for estimates of average life, however upon preparing the additional data, Staff discovered that Liberty Midstates – MO had recorded retirements that exceeded the plant balances that were reported in the first data set. For this reason, Staff decided to omit the data from October 1, 2015 to December 31, 2017 from its testimony until Liberty Midstates – MO provides a reasonable explanation for the discrepancy, or provides corrected data. Staff Data Request No. 0097.3 was submitted on February 26, 2018 to address this issue. Staff may update depreciation rates and estimates of average life based on the resolution of the issue disclosed in Staff Data Request No. 0097.3; however, Staff expects the additional information will affect the proposed rates only slightly, if at all.

[31] Submitted along with the direct testimony of Liberty Midstates – MO witness Dane A. Watson.

E. Comparison of Liberty Midstates – MO Study Data and Staff Study Data

Staff would like to point out one major difference between the study data submitted by Staff and the study data submitted by Liberty Midstates - MO. The retirement data utilized for the determination of depreciation rates for Liberty Midstates - MO included property from all three regulated divisions of Liberty Midstates. In other words, property that is presently used solely in Iowa and Illinois was included in the determination of depreciation rates for the Liberty Midstates - MO study. Staff only included property located within Missouri, as that is the only property benefitting Liberty Midstates - MO's ratepayers and under the jurisdiction of the Missouri Public Service Commission. Staff omitted all property outside of Missouri from its study.

F. General Plant Amortization

As explained in the direct testimony of Liberty Midstates –MO's witness Dane A. Watson,[32] Liberty Midstates is requesting to use General Plant Amortization (referred to as "Vintage Year Accounting" by Mr. Watson). This request is specifically for property contained in Account Nos. 391, 393, 394, 395, 397, 398, and 399 (including all subaccounts). This amortization method is approved by the Federal Energy Regulatory Committee and will reduce the detail that is required when Liberty Midstates – MO records future retirements.

One downside of this method is that actuarial life analysis, which is a statistical analysis using aged retirement data, cannot be performed for property that uses this method for amortization. However, reasonable estimates of service life and salvage would still be attainable through professional knowledge and judgement.

Staff does not oppose Liberty Midstates – MO's use of General Plant Amortization on a going forward basis for the previously mentioned accounts. Staff's proposed depreciation rates for the General Plant Amortization Method are included in Appendix 3, Schedule SBM-d1.

G. Whole Life vs. Remaining Life

Staff utilized and recommends the Whole Life technique to determine depreciation rates. Liberty Midstates – MO instead utilized the Remaining Life technique to determine the rates

[32] p.17, lines 1-4, Direct Testimony of Dane A. Watson, Case No. GR-2018-0013, Liberty Utilities, September 2017.

suggested by Mr. Watson. This difference in technique does not constitute a major discrepancy in how life and salvage parameters are determined, but rather how depreciation rates are calculated using those parameters.

H. Cost of Removal for Meters

Staff discovered during the course of its depreciation study that the cost of removal recorded for meters (Plant Account 381) is abnormally high when compared with other Missouri utilities. This resulted in a net salvage for Plant Account 381 that exceeded -400% for the years 2013, 2014, and 2015. By comparison, other major gas, electric, and water companies within Missouri include a net salvage for meters that ranges between -10% and 10%. Staff submitted Data Request Nos. 0301 and 0318 to investigate the cause of the abnormal costs of removal that Liberty Midstates – MO has recorded. The response to Data Request No. 0318 is due after the filing of this direct testimony and will be reviewed for inclusion in rebuttal testimony.

Liberty Midstates – MO's response to Staff Data Request No. 0301 included additional salvage data for the years 2015, 2016, and 2017. The response shows that, as a percent of retirement amount, the cost of removal for meters has decreased sharply over the last two years.

Currently, Staff's recommendation for net salvage for Account 381 is 0%. Liberty Midstates – MO has suggested a net salvage of -35%, which is significantly outside the range of other Missouri utilities. Staff is open to updating its suggested rate for Account 381 if Liberty Midstates – MO can provide sufficient explanation and details for the high cost of removal that has been recorded.

I. Ordered Rates for Liberty Midstates - MO's 399 Accounts

While reviewing documents submitted by Liberty Midstates - MO, Staff realized Liberty Midstates - MO is not using Commission authorized depreciation rates for the following Corporate Plant Account Numbers: 399.0 – Other Tangible Property - Corporate, 399.1 - Other Tangible Property – Servers Hardware - Corporate, 399.3 – Other Tangible Property – Network Hardware - Corporate, and 399.5 – Other Tangible Property – PC Software - Corporate. However, Liberty Midstates - MO is using the correct depreciation rates for Corporate Plant Account 399.4 – Other Tangible Property – PC Hardware - Corporate. The following chart provides a summary of the depreciation rates that Liberty Midstates - MO is actually using to record depreciation for the Corporate plant accounts on its general ledger as well as the depreciation rates that were ordered by the Commission in Case No. GR-2014-0152.

FERC Account	Depreciation Rates Used by Company in General Ledger	Commission Authorized Depreciation Rates
399.0 Corp Other Tang. Prop.	14.29%	4.75% (Not Litigated)
399.1 Corp Servers	18.98%	14.29% (Litigated)
399.3 Corp Network Hardware	18.98%	14.29% (Litigated)
399.4 Corp PC Hardware	18.98%	18.98% (Litigated)
399.5 Corp PC Software	14.29%	18.98% (Litigated)

In addition, Liberty Midstates - MO is not using the correct depreciation rates for the local district level FERC plant accounts that are referenced in the *Revised Partial Stipulation and Agreement As to Certain Issues* in Liberty Midstates - MO's prior rate case, Case No. GR-2014-0152. The following chart summarizes the differences that exist for these accounts.

FERC Account	Depreciation Rates Used by Company in General Ledger	Commission Authorized Depreciation Rates
399.3 Direct Network Hardware	18.98%	4.75%
399.4 Direct PC Hardware	18.98%	4.75%
399.5 Direct PC Software	14.29%	4.75%

To account for these errors, Staff included adjustments to correct the depreciation reserve balances for all depreciation reserve accounts into which Liberty Midstates - MO has recorded depreciation in its general ledger using incorrect depreciation rates.

J. Recommendation

Staff recommends that the Commission order Liberty Midstates – MO to use the rates listed in Schedule SBM-d1 of Appendix 3.

Staff Witness/Expert: Stephen B. Moilanen

XI. Appendices

Appendix 1 - Staff Credentials

Appendix 2 - Confidential - Detailed Direct Testimony of David Murray and Support for Staff Cost of Capital Recommendations

Appendix 3 - Other Staff Schedules

Confidential Response to Staff Data Request No. 0044 - John P. Cassidy
Response to Staff Data Request No. 0136 (c) - James R. Dittmer
Depreciation - Stephen B. Moilanen

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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 Areas of the Company	))))))	Case No. GR-2018-0013

AFFIDAVIT OF PAUL K. AMENTHOR

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW PAUL K. AMENTHOR and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff Report - Cost of Service; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

PAUL K. AMENTHOR

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of February 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

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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 Areas of the Company	))))))	Case No. GR-2018-0013

AFFIDAVIT OF MICHELLE A. BOCKLAGE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW MICHELLE A. BOCKLAGE and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing Staff Report - Cost of Service; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Michelle A. Bocklage

MICHELLE A. BOCKLAGE

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of February 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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 Areas of the Company	))))))	Case No. GR-2018-0013

AFFIDAVIT OF CHRISTOPHER D. CALDWELL

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

COMES NOW CHRISTOPHER D. CALDWELL and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff Report - Cost of Service; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Christopher D. Caldwell
CHRISTOPHER D. CALDWELL

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of February 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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 Areas of the Company	))))))	Case No. GR-2018-0013

AFFIDAVIT OF JOHN P. CASSIDY

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

COMES NOW JOHN P. CASSIDY and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff Report - Cost of Service; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

John P. Cassidy
JOHN P. CASSIDY

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of February 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D. Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

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 Areas of the Company	))))))	**Case No. GR-2018-0013**

AFFIDAVIT OF JAMES R. DITTMER

State of Missouri)
) ss
County of Jackson)

COMES NOW James R. Dittmer, and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached *Direct Testimony*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

James R. Dittmer

James R. Dittmer

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Jackson, State of Missouri, at my office in Lee's Summit, on this 27 day of February, 2018.

ASHLEY VOLLMECKE
Notary Public – Notary Seal
Jackson County – State of Missouri
Commission Number 15555847
My Commission Expires Dec 29, 2019

Ashley Vollmecke

NOTARY PUBLIC

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Liberty Utilities	)	
(Midstates Natural Gas) Corp. d/b/a	)	Case No. GR-2018-0013
Liberty Utilities' Tariff Revisions	)	
Designed to Implement a General Rate	)	
Increase for Natural Gas Service in the	)	
Missouri Service Areas of the Company	)	

AFFIDAVIT OF LISA M. FERGUSON

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

COMES NOW LISA M. FERGUSON and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing Staff Report - Cost of Service; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Lisa M. Ferguson

LISA M. FERGUSON

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of February 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Liberty Utilities	)	
(Midstates Natural Gas) Corp. d/b/a	)	Case No. GR-2018-0013
Liberty Utilities' Tariff Revisions	)	
Designed to Implement a General Rate	)	
Increase for Natural Gas Service in the	)	
Missouri Service Areas of the Company	)	

AFFIDAVIT OF BRAD J. FORTSON

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

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

Further the Affiant sayeth not.

Brad J. Fortson

BRAD J. FORTSON

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of February 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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 Areas of the Company	))))))	Case No. GR-2018-0013

AFFIDAVIT OF JASON KUNST, CPA

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW JASON KUNST, CPA and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff Report - Cost of Service; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

JASON KUNST, CPA

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of February 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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 Areas of the Company	))))))	Case No. GR-2018-0013

AFFIDAVIT OF STEPHEN B. MOILANEN, PE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW STEPHEN B. MOILANEN, PE and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff Report - Cost of Service; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Steve Moilanen

STEPHEN B. MOILANEN, PE

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of February 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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 Areas of the Company	))))))	Case No. GR-2018-0013

AFFIDAVIT OF DAVID MURRAY, CFA

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW DAVID MURRAY, CFA and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff Report - Cost of Service and Appendix 2 - Detailed Direct Testimony; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

David Murray

DAVID MURRAY, CFA

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of February 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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 Areas of the Company	))))))	Case No. GR-2018-0013

AFFIDAVIT OF JOSE R. PEREZ

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW JOSE R. PEREZ and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff Report - Cost of Service; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

JOSE R. PEREZ

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of February 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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 Areas of the Company	))))))	Case No. GR-2018-0013

AFFIDAVIT OF JOSEPH P. ROLING

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW JOSEPH P. ROLING and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff Report - Cost of Service; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Joseph P. Roling
JOSEPH P. ROLING

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of February 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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 Areas of the Company	))))))	Case No. GR-2018-0013

AFFIDAVIT OF ASAD A. SHAKOOR

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW ASAD A. SHAKOOR and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff Report - Cost of Service; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

ASAD A. SHAKOOR

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of February 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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 Areas of the Company	))))))	Case No. GR-2018-0013

AFFIDAVIT OF SEOUNG JOUN WON, PhD

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

COMES NOW SEOUNG JOUN WON, PhD and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff Report - Cost of Service; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Seoung Joun Won

SEOUNG JOUN WON, PhD

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 28th day of February 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D. Suzie Mankin

Notary Public