MEMORANDUM

TO: Missouri Public Service Commission Official Case File
Case No. GR-2016-0075, Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities

FROM: Joshua Nash, Regulatory Auditor - Procurement Analysis
Phil S. Lock, Regulatory Auditor - Procurement Analysis
Kwang Y. Choe, Ph.D., Regulatory Economist - Procurement Analysis
Lesa A. Jenkins, P.E., Regulatory Engineer - Procurement Analysis

/s/ David M. Sommerer 12/8/16
Project Coordinator/ Date

/s/ Jeffrey A. Keevil 12/8/16
Staff Counsel's Office/ Date

/s/ Derick A. Miles, P.E. 12/8/16
Utility Regulatory Engineer II/ Date

SUBJECT: Staff's Recommendation in Case GR-2016-0075, Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities' 2014-2015 Actual Cost Adjustment Filing (formerly Atmos Energy Corporation)

DATE: December 8, 2016

Procurement Analysis Staff has reviewed Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities' ("Liberty") 2014-2015 Actual Cost Adjustment (ACA) filing. This filing was made on October 15, 2015, for rates to become effective on November 1, 2015, in all areas served in Missouri by Liberty. This filing was docketed as Case No. GR-2016-0075.

During its ACA review process, Staff discovered that Liberty's filed ACA balances for the SEMO district were largely misstated (demand and commodity ACA balance). This is described in greater detail below in **Section I BILLED REVENUE AND ACTUAL GAS COSTS - SEMO ACA balance corrections**.

This memorandum is organized into four sections. Each section contains detailed explanations of Staff's concerns and recommendations. The four sections are:

I. Billed Revenue and Actual Gas Costs
II. Reliability Analysis and Gas Supply Planning
III. Hedging
IV. Recommendations

Staff's analysis consisted of:

1. A review and evaluation of the Company's billed revenues and its natural gas costs for the period of September 1, 2014, to August 31, 2015. A comparison of billed revenue recovery with actual costs will yield either an over-recovery or under-recovery of the ACA costs. The Company's over-recovery is shown as a negative ACA balance that must be returned to customers; under-recovery is shown as a positive ACA balance that must be recovered from customers.
2. A reliability analysis of the Company's estimated peak day requirements and capacity levels to meet those requirements.
3. An examination of the Company's gas purchasing practices to determine the prudence of the Company's purchasing decisions.
4. A hedging review to determine the reasonableness of the Company's hedging plans for this ACA period.

Liberty's Missouri Service Territory

The Liberty systems in Missouri are grouped into three geographic areas: Northeast, Southeast and West. For gas cost recovery there are four PGA/ACA rate divisions, three of which are made up of the three geographic divisions. A fourth PGA division, Kirksville, is separate from the Northeast area. A more detailed description, with the associated interstate pipelines serving these areas, follows:

The West area (WEMO) includes Butler which is served by Panhandle Eastern Pipe Line Co., LP (PEPL) and Stateline (also known as Rich-Hill/Hume) which is served by Southern Star Central Gas Pipeline, Inc. (SSCGP). The West area serves an average of 3,789 firm sales customers.

The Northeast area (NEMO) includes ; Hannibal-Canton, Bowling Green and Palmyra served by Panhandle Eastern Pipe Line Co., LP (PEPL). The NEMO area serves an average of 12,812 firm sales customers.

The Kirksville area, served by ANR Pipeline Co. (ANR), serves an average of 5,248 firm sales customers.

The Southeast area (SEMO) includes Jackson, served by Natural Gas Pipeline Co. of America (NGPL), Piedmont, served by Mississippi River Transmission Corp. (MRT), and the Southeast Missouri Integrated system, served by Texas Eastern Transmission, LP (TETCO) and Ozark Gas Transmission, LLC. The Southeast area also includes the former Neelyville/Quilin service area. Together they serve an average of 31,114 firm sales customers.

The total customer count for all divisions is an average of 52,963 firm sales customers. Based on its review, Staff recommends the following adjustments[1] to the Company's filed ACA balances; a positive ACA balance indicates an under-collection that must be recovered from customers and a negative ACA balance indicates an over-recovery that must be returned to customers:

[1] A more detailed adjustment table appears later in this memorandum in **Section IV Recommendations**.

ALL AREAS	Filed Balances for 2014-2015 (Ending 8-31-15)	Staff Adjustments (A)	Staff Balances for 2014-2015 (Ending 8-31-15)
SEMO Area: Demand ACA	$2,028,647	(1,337,124)	$691,523
Commodity ACA	$490,101	($4,489,832)	($3,999,731)
Kirksville Area: Demand ACA	$459,002	$16,867	$475,869
Commodity ACA	($657,723)	$19,536	($638,187)
WEMO Area: Demand ACA	$7,138	$7,339	$14,477
Commodity ACA	($28,123)	$63,213	$35,090
NEMO Area: Demand ACA	($181,998)	$0	($181,998)
Commodity ACA	$219,902	$67,724	$287,626

A) Combined Staff adjustments from 2012-13 ACA, 2013-14 ACA and 2014-15 ACA's.

STAFF TECHNICAL REPORT AND ANALYSIS

I. BILLED REVENUE AND ACTUAL GAS COSTS

Monthly Cash-Out Provisions

The school transportation customers have a cashout calculation method that is separate and distinct from the Company's other transportation customers. ** ________________________________ * Staff recommends that the Company review its method for sourcing and calculating the cashout rate for its school transportation customers.

Compliance Adjustments - Gas Cost Calculations

In its review of the Company's invoices, Staff noted multiple misstatements and an omission in the calculation of the Company's gas costs for its SEMO district during the 2014-2015 ACA period. Details of these occurrences are as follows:

- The Company claimed a cost of $933.43 in January 2015 for a cashout imbalance related to transportation service on the Texas Eastern Transmission pipeline. However, the invoice indicates that the cashout imbalance was a credit to the Company and a reduction of its gas costs. Therefore, Staff has made a $1,867 adjustment by reducing the $933.43 as a cost to the Company and properly applying it as a $933.43 credit.

- The Company claimed costs totaling $506.48 for refunds from Natural Gas Pipeline Company of America ("NGPL") in February 2015. However, Staff reviewed these charges on the NGPL invoice and noted that they were credits to the Company. Therefore, Staff has made a $1,013 adjustment by reducing the $506.48 as a cost to the Company and properly applying it as a $506.48 credit.

- Staff noted a $360 credit on the NGPL invoice for the March 2015 service period. After reviewing the Company's gas costs, this credit does not appear to have been applied as a reduction to the Company's gas costs for the SEMO district during the 2014-2015 ACA period. Therefore, Staff has made a $360 adjustment by properly applying this credit.

Staff has made a $2,227 ($1,867 +$360) adjustment to the SEMO ACA Commodity balance and a $1,013 adjustment to the SEMO ACA Demand balance to reduce the Company's gas costs for the misstatements and omission described above (a total reduction of $3,240).

SEMO ACA Balance Corrections

In its ACA review process, Staff discovered that Liberty's filed ACA balances for the SEMO district were largely misstated (demand and commodity ACA balance). These balances are shown on Exhibit II of the Company's filing. A transcription error resulted in the Company having filed an incorrect rate for the ACA factor component of its PGA rate. Staff notified the Company about the error. On February 24, 2016 Liberty filed an application seeking a variance from a provision of its PGA tariff and a tariff sheet to correct the error. Staff filed a recommendation on March 1, 2016 recommending that the Commission grant the requested variance and approve the tariff sheet. The Commission issued an order granting the requested application for variance and approving on an interim basis subject to refund the 22nd Revised Sheet No. 44, Cancelling 21st Revised Sheet No. 44, effective on March 10, 2016.

Staff has calculated an adjustment to the Company's SEMO ACA balances as a result of the misstatement of Company's filed ACA balances. This adjustment results in a $1,320,998 increase in the SEMO Demand ACA over-recovery balance (correcting a filed $660,499 ACA under-recovery balance to a revised $660,499 ACA over-recovery balance) and a $4,586,290 increase in the SEMO Commodity ACA over-recovery balance (correcting a filed $2,293,145 ACA under-recovery balance to a revised $2,293,145 ACA over-recovery balance).

Interest on ACA Balance – SEMO

As described above, the Company misstated its beginning Demand and Commodity ACA balance for the SEMO district. Exhibit II-C of the Company's filing relied on these misstated figures to calculate the monthly interest on the cumulative ACA balances in accordance with 1st Revised

Sheet No. 43 of the Company's tariff. As a result, the Company's calculated interest on the SEMO district was incorrect.

The Company's original beginning balance for its calculation of the SEMO Demand ACA interest reflected an under-recovered balance of $660,499. Staff recalculated the interest assuming that the beginning balance was corrected to an over-recovered balance of $660,499. The interest calculated on the monthly cumulative ACA balance from September 1, 2014 to August 31, 2015 was originally a $14,492 credit to the Company. Staff's correction reflects a $2,115 credit to the Company's customers. In summary, Staff has made a $16,607 adjustment ($14,492 + $2,115) to the ending SEMO Demand ACA balance by reducing $14,492 in gas costs incorrectly credited to the Company and reducing gas costs by the additional $2,115 that should have originally been credited to the customers.

The Company's original beginning balance for its calculation of the SEMO Commodity ACA interest reflected an under-recovered balance of $2,293,145. Staff recalculated the interest assuming that the beginning balance was corrected to an over-recovered amount of $2,293,145. The interest calculated on the monthly cumulative ACA balance from September 1, 2014 to August 31, 2015 was originally a $23,969 credit to the Company. Staff's corrected calculation is a $33,690 credit to the Company's customers. In summary, Staff has made a $57,659 adjustment ($23,969 + $33,690) to the ending SEMO Commodity ACA balance by reducing $23,969 in gas costs incorrectly credited to the Company and reducing gas costs by the additional $33,690 that should have originally been credited to the customers.

Texas Eastern ("TETCO") Entitlements

The Company and Staff have had discussions concerning the Company's allocated entitlements from the Texas Eastern Transmission pipeline. The Company has acknowledged that the base entitlements that the Company is billed off of exceed the operational entitlements that the Company is permitted to utilize. However, the Company has failed to provide Staff with any support or justification for the original entitlement allocation. To assure its accuracy and the intent of the terms, Staff requests that the Company takes the necessary action in the next 60 days to locate the original contractual basis for this arrangement and any additional documentation which might explain the original purpose for the pipeline's allocation of its base and operational entitlements.

Bill Payment

Staff reviewed the Company's invoices for the 2014-2015 ACA period. In the course of this review, Staff noted charges in multiple months[2] from one of the Company's vendors for interest that had accumulated from the Company's failure to pay its obligated amount by the vendor's requested date. Staff recommends that the Company assess the internal controls related to its payment procedures to ensure that its bills are paid on time and without penalty in the future.

II. RELIABILITY ANALYSIS AND GAS SUPPLY PLANNING

As a regulated gas corporation providing natural gas service to Missouri customers, a Local Distribution Company (LDC) is responsible for: 1) conducting reasonable long-range supply planning, and 2) the decisions resulting from that planning. One purpose of the ACA process is to review the Company's planning for gas supply, transportation, and storage to meet its customers'

[2] See Spectra Energy invoice no. 140908857 for September 2014 and invoice no. 141108857 for November 2014.

needs. For this analysis, Staff reviews the LDC's plans and decisions regarding estimated peak day requirements and the capacity levels to meet those requirements, peak day reserve margin and the rationale for this reserve margin, and natural gas supply plans for various weather conditions.

Staff has no proposed financial adjustments for the 2014-2015 ACA period related to Reliability Analysis and Gas Supply Planning.

Staff's review produced the following comments and recommendations:

A. Peak Day Planning

1. Peak Day Planning Documents required in GM-2012-0037

Some of the requested data and documents for peak day planning were not placed in EFIS by the deadlines established in the Commission Order Approving the Unanimous Stipulation and Agreement in GM-2012-0037. Liberty ultimately provided the information, but not by the required deadline. During the 2013/2014 ACA review Staff reminded Liberty of these deadlines.

Liberty made a change in contracted pipeline capacity for Hannibal effective 5/1/2015 (reduced winter capacity by 400 Dth/day). The Unanimous Stipulation and Agreement in GM-2012-0037, Section 15. g requires that if Liberty revises the transportation or storage capacity it shall prepare an addendum to the peak day demand study within six months of making such changes, explaining such changes and rationale for the changes and provide the addendum to Staff and OPC. No such addendum was provided. The Unanimous Stipulation and Agreement in GM-2012-0037, Section 15. g also requires Liberty to provide copies of any and all transportation contracts, including storage, no later than 90-days after the effective date of the revised contracts. These are to be filed in EFIS under case number GM-2012-0037. Staff again reminds the Company of the documentation and notification requirements of the Commission Order in GM-2012-0037.

Staff made similar comments in the 2013/2014 ACA regarding the Company's failure to provide the required documentation by the deadlines established in the Commission Order. Staff recommends Liberty develop a procedure to ensure it is complying with this requirement.

2. Concerns with Jackson Peak Day Estimate

To estimate usage for 2014/2015, the Company evaluated historical usage data. Staff plotted the Company's historical data for firm usage for Jackson vs. the Company's heating degree days (HDD) for the Poplar Bluff weather station. There was poor correlation for the Company historical data for 2013/2014. Further review of the Liberty historical data shows usage on 1/6/2014 of 8,630 Dth for 35 HDD. This usage exceeds its peak day estimate of 7,886 Dth. Liberty does not utilize the 95% upper confidence factor for its peak day estimates, but if it did that estimate would be 8,427 Dth, and the usage on 1/6/2014 also exceeded this estimate.

Staff's review of a nearby weather station in Cape Girardeau for 1/6/2014 shows a much colder day of 61 HDD, which caused Staff to question the validity of the

Liberty HDD for Jackson. DR 0109.3 questions the differences and Liberty's response explains its files contained incorrect HDD for 1/1/2014 – 3/31/14. Liberty provided a revised Excel file for Jackson, but the revised Liberty file does not include the usage and HDD data for Jackson for 1/1/2014 – 3/31/2014.

Actual usage that exceeds its estimate for a peak day should be a concern to Liberty, especially for a day that is only 35 HDD and the peak HDD considered in its peak day estimate is 69 HDD. The Company workpapers for its regression analysis do not plot the data to spot outliers and identify potential known causes for anomalous data (ice storms, power outages, meter problems). Liberty's process is to use all data for the time frame identified in its test.[3]

As in the prior 2013/2014 ACA, Staff recommends Liberty plot the usage data versus HDD and review for potential data problems such as inclusion of incorrect HDD data or for anomalies that may be due to meter recording problems or other identifiable events causing usage for certain dates to be skewed. Anomalous data should be a consideration in how to analyze the actual data (e.g., what data to include for design day/peak day planning). Any data that shows usage is greater than the Company's peak day estimate, especially on a day much warmer than the HDD used for its peak day planning, should cause Liberty to investigate the data or conduct further review of the peak day estimate.

B. <u>Supply Planning</u>

The Company's plans for gas supply include Asset Management Agreements (AMAs), also known as Asset Management Arrangements, for some service areas. Under these AMAs, Liberty contracts with third-party "asset managers" to provide natural gas supplies to the LDC and allows the asset manager to use and manage the LDC transportation assets, including storage.[4] In theory, the AMA allows the "asset manager" to optimize the LDC's natural gas transportation and storage contracts in a way to maximize the underlying value of the gas contract(s), while still maintaining reliability of natural gas deliveries to the LDC through the provisions of the AMA or contract. A key distinction between more traditional gas transportation, storage and supply contracts and an AMA is the concept that reliability of volumes delivered to the LDC's city-gate is governed by the AMA contract. The AMA provisions and related AMA transactions themselves can be quite complex. The complexity can arise from the notion that the LDC is nominating and paying for its supplies by a process that is separate and distinct from the actual physical receipts and deliveries.

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[3] GR-2016-0075, DR109.3.

[4] FERC Order No. 712, Final Rule issued June 19, 2008 defines an Asset Management Arrangements a "any pre-arranged release that contains a condition that the releasing shipper may, on any day during a minimum period of five months out of each twelve-month period of the release, call upon the replacement shipper to deliver to the releasing shipper a volume of gas up to one-hundred percent of the daily contract demand of the released transportation capacity. If the capacity release is for a period of less than one year, the asset manager's delivery obligation described in the previous sentence must apply for the lesser of five months or the term of the release. If the capacity release is a release of storage capacity, the asset manager's delivery obligation need only be one-hundred percent of the daily contract demand under the release for storage withdrawals," and notes that "The annual five month minimum would apply to AMAs with terms of one year or longer. The delivery obligation for any AMA between five months and a year would be for five months of the release. The delivery obligation would apply to the entire term for any AMA of less than five months."

1. Gas Supply RFP Process

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2. Supply Agreements, Including AMAs, Must Document All Agreed to Pricing and Volume Provisions

a. Southeast – Jackson Supply. ** ______________________________
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[5] GR-2015-0095, DR50.3.
[6] GR-2015-0095, DR50.3.

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b. West – Rich Hill/Hume (Stateline) Supply. ** **

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[7] GR-2015-0095, DR50.3.
[8] GR-2015-0095, DR50.3.

3. AMA Documentation of Storage Provisions – Rich Hill/Hume, Jackson, and SEMO Service Areas

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4. Each AMA Must Contain Provisions Relevant to That AMA

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III. HEDGING

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The Staff reviews the prudence of a company's hedging decision-making based on what the company reasonably knew, or reasonably could have known, at the time it made its hedging decisions. A company's hedging planning should be flexible, in part, to incorporate changing market circumstances to balance the cost of hedging against the goal of price stabilization, and thus to achieve a cost effective hedging outcome. For example, a company should evaluate whether the swaps and the volumes associated with them are appropriate under the current market where the market prices have become less volatile. ** ** Staff recommends the Company be aware of any fundamental shifts in the market dynamics while being cautious on the market views.

Staff also recommends the Company continue to assess and document the effectiveness of its hedges for the 2015-2016 ACA and beyond. The analysis should include, but not be limited to, whether the hedging implementation was consistent with the hedging plan, identifying the benefits/costs based on the outcomes from the hedging strategy, and thus evaluating any potential improvements on the future hedging plan and its implementation. Additionally Staff recommends the Company evaluate whether the hedging plan for each of the four systems has operational implications for warm and cold weather conditions. Finally, Staff recommends the Company continue to monitor the market movements diligently, employ *disciplined* (triggered primarily by the passage of time) as well as *discretionary* (hedge decision influenced by favorable pricing environments) approaches in its hedging practices, ** **

** THIS TABLE HAS BEEN DEEMED **CONFIDENTIAL** IN ITS ENTIRETY **

IV. RECOMMENDATIONS

The Staff recommends that the Commission issue an order requiring Liberty to:

1. Adjust the ACA account balances in its next ACA filing to reflect the following Staff adjustments and to reflect the (over)/under-recovered ACA balances in the "Staff Balances" column of the following table:

TABLE 1

ALL AREAS (+) Under-recovery (-) Over-recovery	**Filed Balances for 2014-2015 ACA (Ending 8-31-15)**	**Commission Approved Adjustments prior to 2013-2014 ACA (A)**	**Commission Approved Adjustments 2013-2014 ACA (B)**	**Staff Adjustments for 2014-2015 ACA**	**Staff Balances for 2014-2015 ACA (Ending 8-31-15)**
SEMO Area: Demand ACA	$2,028,647(C)	$1,494	$0	($1,320,998)(D) ($16,607) (E) ($1,013) (F)	$691,523
Commodity ACA	$490,101(C)	$159,168	($1,830) ($994)	($4,586,290) (D) ($57,659) (E) ($2,227)(F)	($3,999,731)
Kirksville Area: Demand ACA	$459,002	$16,867	$0	$0	$475,869
Commodity ACA	($657,723)	$23,618	($4,082)	$0	($638,187)
WEMO Area: Demand ACA	$7,138	$0	$7,248 $91	$0	$14,477
Commodity ACA	($28,123)	$22,618	$43,643 $549 ($3,597)	$0	$35,090
NEMO Area: Demand ACA	($181,998)	$0	$0	$0	($181,998)
Commodity ACA	$219,902	$67,945	($221)	$0	$287,626

A) *Commission order issued March 7, 2015 approving adjusted amounts from 2012-2013 ACA.*
B) *Commission order issued February 20, 2016 approving adjusted amounts from 2013-2014 ACA.*
C) *A transcription error resulted in the Company having filed an incorrect ACA balance (demand and commodity). A variance was filed by Liberty to correct the ACA balances.*
D) *ACA balance adjusted per Staff as a result of the transcription error in footnote C.*
E) *Interest on ACA balance adjustment as a result of the transcription error in footnote C.*
F) *Misstatements and omissions of gas supply costs on the SEMO system.*

2. Respond to Staff's recommendations in Section I – Billed Revenue and Actual Gas Costs.

3. Respond to Staff's recommendations in Section II – Reliability Analysis and Gas Supply Planning. There is no financial adjustment related to Reliability Analysis and Gas Supply Planning for this ACA review period.

4. Respond to Staff's recommendations in Section III – Hedging. There is no financial adjustment related to Hedging for this ACA review period.

5. Respond to recommendations included herein within 45 days.

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' Purchased Gas Adjustment Tariff Filing	)))	**Case No. GR-2016-0075**

AFFIDAVIT

State of Missouri)
) ss.
County of Cole)

COMES NOW Kwang Y. Choe and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached Staff Memorandum; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Kwang Y. Choe

Kwang Y. Choe, Ph.D.

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 8th day of December, 2016.

JESSICA LUEBBERT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: February 19, 2019
Commission Number: 15633434

Jessica Luebbert

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' Purchased Gas Adjustment Tariff Filing	)))	**Case No. GR-2016-0075**

AFFIDAVIT

State of Missouri)
) ss.
County of Cole)

COMES NOW Lesa A. Jenkins and on her oath declares that she is of sound mind and lawful age; that she contributed to the attached Staff Memorandum; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Lesa A. Jenkins

Lesa A. Jenkins, P.E.

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 7th day of December, 2016.

JESSICA LUEBBERT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: February 19, 2019
Commission Number: 15633434

Jessica Luebbert

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' Purchased Gas Adjustment Tariff Filing	)))	**Case No. GR-2016-0075**

AFFIDAVIT

State of Missouri)
) ss.
County of Cole)

COMES NOW Phil S. Lock and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached Staff Memorandum; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Phil S. Lock
Phil S. Lock

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 6th day of December, 2016.

Jessica Luebbert
NOTARY PUBLIC

JESSICA LUEBBERT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: February 19, 2019
Commission Number: 15633434

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' Purchased Gas Adjustment Tariff Filing	)))	**Case No. GR-2016-0075**

AFFIDAVIT

State of Missouri)
) ss.
County of Cole)

COMES NOW Joshua Nash and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached Staff Memorandum; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Joshua Nash

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 7th day of December, 2016.

JESSICA LUEBBERT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: February 19, 2019
Commission Number: 15633434

Jessica Luebbert
NOTARY PUBLIC