



Minnesota Energy Resources Corporation  
2685 145th Street West  
Rosemount, MN 55068  
www.minnesotaenergyresources.com

August 30, 2019

**VIA ELECTRONIC FILING**

Daniel P. Wolf  
Executive Secretary  
Minnesota Public Utilities Commission  
121 Seventh Place East, Suite 350  
St. Paul, MN 55101

**PUBLIC DOCUMENT – TRADE SECRET  
DATA HAS BEEN EXCISED**

Re: Minnesota Energy Resources Corporation – Consolidated's 2019 Annual  
Automatic Adjustment Report  
Docket No. G999/AA-19-401

Dear Mr. Wolf:

Minnesota Energy Resources Corporation – Consolidated ("MERC-CON" or the "Company") submits to the Minnesota Public Utilities Commission (the "Commission") the following reports:

Minnesota Rule 7825.2800 – Procurement Policies of Gas Supply.

Minnesota Rule 7825.2810 – Automatic Adjustment Charges.

Minnesota Rule 7825.2820 – Annual Auditor's Report.

Minnesota Rule 7825.2830 – Statement on Gas Cost Projection.

In Docket No. G999/AA-14-580, MERC agreed in its Reply Comments filed May 15, 2015, to "request that its auditor review the cost allocations between PGAs for future true-up filings and address any concerns regarding cost-allocations in the audit report to be filed with the AAA report." All gas revenues are directly assigned (not allocated) to each PGA system based on the interstate pipeline system(s) town border station that supply gas to the customers' meter. All gas purchase costs, except for costs and credits associated with financial hedging options, are directly assigned (not allocated) to each PGA system based on the interstate pipeline system(s) and town border stations that supply each PGA system. The financial hedging option costs and credits are allocated among the two PGA systems based on each respective PGA system's percent of total MERC sales. The monthly gas commodity costs ("Commodity \$") listed on Schedule C & D, page 1 of 1, are inclusive of any applicable financial hedging option costs and/or credits. The individual costs resulting in the total monthly Commodity \$ amounts, including financial hedging costs/credits and the allocation of those costs/credits, were included in the scope of the audit.

In its February 27, 2019, Order Accepting Gas Utilities' Annual Automatic Adjustment Reports and 2017 True-Up Proposals and Setting Further Requirements, in Docket No.

Mr. Daniel P. Wolf  
August 30, 2019  
Page 2

G999/AA-17-493, the Commission required each utility to provide information regarding unauthorized gas use. Additionally, the Commission required that MERC include totals for Schedule Q, Third Party Damage. Finally, the Commission required that MERC file a report on the results of its investigation into lost and unaccounted for ("LUF") gas with its 2019 AAA report on or before September 3, 2019. MERC addresses each of these requirements.

The nonpublic version of the filing contains trade secret information. Specifically, Schedules L and Q contain information that is not generally known to and not readily ascertainable by vendors or competitors of MERC, who could obtain economic value from its disclosure. MERC maintains this information as secret. Accordingly the attached document contains data that qualify as "Trade Secret Data" pursuant to Minnesota Statutes section 13.37, subdivision 1(b).

In accordance with Minnesota Rule 7825.2840, a notice of availability of the above reports has been sent to all intervenors in the Company's previous two rate cases.

Please contact me at (414) 221-2374 if you have any questions regarding the information in this filing. Thank you for your attention to this matter.

Sincerely,

A handwritten signature in blue ink that reads "Mary L. Wolter". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Mary L. Wolter  
Director – Gas Regulatory Planning & Policy

Enclosures  
cc: Service List

August 30, 2019

To: Service List

RE: Minnesota Energy Resources Corporation – Consolidated's Annual Automatic Adjustment Report

**Notice of Availability**

Please take notice that Minnesota Energy Resources Corporation-Consolidated has filed with the Minnesota Public Utilities Commission ("Commission") the following reports:

1. Minnesota Rule 7825.2800 – Procurement Policies of Gas Supply.
2. Minnesota Rule 7825.2810 – Automatic Adjustment Charges.
3. Minnesota Rule 7825.2820 – Annual Auditor's Report.
4. Minnesota Rule 7825.2830 – Statement on Gas Cost Projection.

To obtain copies, or if you have any questions, please contact:

Mary L. Wolter  
Director – Gas Regulatory Planning & Policy  
Minnesota Energy Resources Corporation  
2685 145th Street West  
Rosemount, MN 55068  
Telephone: (414) 221-2374  
mary.wolter@wecenergygroup.com

Please note that this filing is also available through the eDockets system maintained by the Minnesota Department of Commerce and the Minnesota Public Utilities Commission. You can access this document by going to eDockets through the websites of the Department of Commerce or the Public Utilities Commission or going to the eDockets homepage at:

<https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showeDocketsSearch&showEdocket=true&userType=public>

Once on the eDockets homepage, this document can be accessed through the Search Documents link by searching docket number 19-401.

**STATE OF MINNESOTA  
BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION**

Katie J. Sieben  
Dan Lipschultz  
Valerie Means  
Matthew Schuerger  
John A. Tuma

Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner

In the Matter of the Annual Automatic  
Adjustment Report of Minnesota Energy  
Resources Corporation – Consolidated

**ANNUAL REPORT**

Docket No. G999/AA-19-401

**SUMMARY OF FILING**

Pursuant to Minnesota Rules 7825.2390 – 7825.2920, Minnesota Energy Resources Corporation – Consolidated submitted the following reports to the Minnesota Public Utilities Commission:

1. Minnesota Rule 7825.2800 – Procurement Policies of Gas Supply.
2. Minnesota Rule 7825.2810 – Automatic Adjustment Charges.
3. Minnesota Rule 7825.2820 – Annual Auditor's Report.
4. Minnesota Rule 7825.2830 – Statement on Gas Cost Projection.

**STATE OF MINNESOTA**  
**BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION**

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In the Matter of the Annual Automatic  
Adjustment Report of Minnesota Energy  
Resources Corporation – Consolidated

**ANNUAL REPORT**

Docket No. G999/AA-19-401

**INTRODUCTION**

Minnesota Energy Resources Corporation – Consolidated (“MERC-CON” or the “Company”) submits to the Minnesota Public Utilities Commission (the “Commission”) the attached Annual Automatic Adjustment Report for the year beginning July 1, 2018, and ending June 30, 2019, pursuant to Minnesota Rules 7825.2390 – 7825.2920.

The following information is provided in accordance with Minn. R. 7829.1300, subp. 3:

**I. Summary of Filing**

Pursuant to Minn. R. 7829.1300, subp. 1, a one-paragraph summary of the filing is attached.

**II. Service**

Pursuant to Minn. R. 7829.1300, subp. 2, MERC-CON has served a copy of this filing on the Department of Commerce, Division of Energy Resources (the “Department”) and the Office of the Attorney General – Residential Utilities and Antitrust Division (“OAG”). A notice of availability has been served on all intervenors in MERC’s previous two general rate cases as required by Minn. R. 7825.2840. A summary of the filing has been served on all individuals on MERC’s general service list.

### **III. General Filing Information**

#### **A. Name, Address, and Telephone Number of Filing Party**

Minnesota Energy Resources Corporation  
2685 145th Street West  
Rosemount, MN 55068  
(651) 322-8900

#### **B. Name, Address, Electronic Address, and Telephone Number of Attorney for the Filing Party**

Kristin M. Stastny  
Briggs and Morgan, P.A.  
2200 IDS Center  
80 South 8th Street  
Minneapolis, MN 55402  
(612) 977-8656  
KStastny@briggs.com

#### **C. Date of the Filing and Date Proposed Change Will Take Effect**

Date of filing: August 30, 2019  
Proposed Effective Date: September 1, 2019

#### **D. Statute Controlling Schedule for Processing the Filing**

No statute establishes a schedule for processing this filing. Under Minn. R. 7829.1400, initial comments are due within 30 days of filing, with reply comments due 10 days thereafter.

#### **E. Signature, Electronic Address, and Title of Utility Employee Responsible for the Filing**



Mary L. Wolter  
Director—Gas Regulatory Planning & Policy  
[Mary.Wolter@wecenergygroup.com](mailto:Mary.Wolter@wecenergygroup.com)  
2685 145<sup>th</sup> Street West  
Rosemount, MN 55068  
(414) 221-2374

#### **IV. Description and Purpose of Filing**

Pursuant to Minnesota Rules 7825.2390 – 7825.2920, this report includes the following information:

1. Minnesota Rule 7825.2800 – Procurement Policies of Gas Supply.
2. Minnesota Rule 7825.2810 – Automatic Adjustment Charges.
3. Minnesota Rule 7825.2820 – Annual Auditor's Report.
4. Minnesota Rule 7825.2830 – Statement on Gas Cost Projection.

##### **Requirements of Minnesota Rule 7825.2800**

Minnesota Rule 7825.2800 requires each public utility to file annually the procurement policies for selecting sources of fuel and energy purchased, dispatching policies, if applicable, and a summary of actions taken to minimize costs, including conservation actions for gas utilities.

##### **Requirements of Minnesota Rule 7825.2810**

Minnesota Rule 7825.2810 requires each utility to submit to the Commission an annual reporting by month of automatic adjustment charges for each customer class for the previous year commencing July 1 and ending June 30.

##### **Requirements of Minnesota Rule 7825.2820**

Minnesota Rule 7825.2820 requires all gas and electric utilities to submit to the Commission an independent auditor's report evaluating accounting for automatic adjustments for the prior year commencing July 1 and ending June 30. In Docket No. G999/AA-14-580, MERC agreed in its Reply Comments filed May 15, 2015, to "request that its auditor review the cost allocations between PGAs for future true-up filings and address any concerns regarding cost-allocations in the audit report to be filed with the AAA report." All gas purchase costs, except for costs and credits associated with financial hedging options, are directly assigned (not allocated) to each PGA system based on the interstate pipeline system(s) and town border stations that supply each PGA system. The financial hedging option costs and credits are

allocated among the two PGA systems based on each respective PGA system's percent of total MERC sales. The monthly gas commodity costs ("Commodity \$") listed on Schedule C & D, page 1 of 1, are inclusive of any applicable financial hedging option costs and/or credits. The individual costs resulting in the total monthly Commodity \$ amounts, including financial hedging costs/credits and the allocation of these costs/credits, were included in the scope of the audit.

#### **Requirements of Minnesota Rule 7825.2830**

Minnesota Rule 7825.2830 requires each gas utility to submit to the Commission by September 1 of each year a brief statement of its opinion on the impact of market forces on gas costs for the coming year.

#### **Other Commission Filing Requirements**

In its February 27, 2019, Order Accepting Gas Utilities' Annual Automatic Adjustment Reports and 2016-2017 True-up Proposals and Setting Further Requirements in Docket No. G999/AA-17-493, the Commission required each gas utility to provide, in the next three AAA reports, information on unauthorized gas use for each customer that did not comply with a called interruption during the heating season. In particular, the Commission required the utilities to report on (1) the volume of gas consumed by the non-compliant customer during the curtailment period; (2) the specific commodity rate charged for the unauthorized gas use and how that rate is determined; (3) the financial penalty, if any, assessed by the company to the customer, including calculations in determining the penalty or penalties; and (4) a discussion about utility communication with each customer regarding non-compliance with interruptions. The Commission also ordered that MERC provide totals for Schedule Q, Third Party Damage, in future AAA reports; and required MERC to submit the results of its investigation into lost and unaccounted for ("LUF") gas with its 2019 AAA report on or before September 3, 2019.



## **CONCLUSION**

MERC respectfully requests that the Commission approve the Annual Automatic Adjustment Report as filed.

DATED: August 30, 2019

Respectfully submitted,

MINNESOTA ENERGY RESOURCES  
CORPORATION

By: /s/ Mary L. Wolter  
Mary L. Wolter  
2685 145th Street West  
Rosemount, MN 55068  
Telephone: (414) 221-2374

**MERC**

**PROCUREMENT POLICIES OF GAS SUPPLY**  
**MINNESOTA RULE 7825.2800**

**August 30, 2019**

## **1) 2018-2019 Gas Procurement Policies**

Minnesota Energy Resources Corporation's (MERC's) gas procurement policy is intended to provide reliable and reasonably priced natural gas to customers. MERC utilized a portfolio mix of firm supplies with varying terms purchased at:

- Fixed Price Financial (Futures)
- Pipeline Storage (NNG / ANR)
- Financial Calls (Options)
- First-of-Month Index (FOM)
- Daily Spot Market - Gas Daily Daily Index (GDD) or fixed price

For all gas supply purchases that have a term of one month or greater, a Request-For-Proposal (RFP) was emailed to all third-party suppliers that MERC has North American Energy Standards Board (NAESB) agreements with soliciting bids for supply. The RFP responses were compared and the lowest priced supply was awarded, assuming suppliers meet reliability and credit standards.

For all gas supply purchases that have a term of less than one month, a minimum of three bids were solicited from NAESB contracted suppliers utilizing lines of communication such as Instant Messaging (IM) or cold calling. The solicited bids were compared and the best price from a reliable, credit worth supplier was awarded.

It is MERC's policy to ensure there is enough contracted interstate pipeline capacity to provide firm delivery of natural gas to firm customers on a peak day. MERC's policy is to have adequate firm transportation capacity to protect against a one (1) in twenty (20) year cold weather event, plus a positive reserve margin. Due to MERC's service territories being geographically spread throughout the state, MERC contracts for firm pipeline capacity on Northern Natural Gas (NNG), Great Lakes Gas Transmission (GLGT), Viking Gas Transmission (VGT), Centra Pipeline (Centra), Bison Pipeline (Bison) and Northern Border Pipeline (NBPL). This mix of pipelines allows purchasing supply from Canadian, Mid-Continent and Rockies supply sources, providing a diversity of supply points and prices.

During the winter season (November 2018 through March 2019), MERC utilized a 40%/30%/30% strategy to mitigate price volatility and provide reasonably priced natural gas. The strategy consists of 40% of normal winter supply requirements purchased at a FOM index price, 30% supplied by physical storage, and 30% covered by financial hedges (10 % futures and 20% call options).

Storage supply and financial products were purchased evenly from May through October 2018.

This approach provided MERC customers with 60% of the portfolio protected from increasing market prices via storage, call options, and futures. It also provided the ability to participate in a decreasing market with 60% of the portfolio comprised of call options or FOM purchases.

In non-winter months, natural gas was purchased at FOM index or in the spot market when necessary.

## **Gas Supply Procedures**

Due to the variable daily and seasonal needs of its customers, MERC, from time to time, may have underutilized pipeline capacity available for release and/or gas supply available for resale (opportunity sales). The Gas Supply (GS) Procedures approved by the Commission in Docket No. G007,011/AI-06-1416 describe how MERC makes its capacity releases and opportunity sales available to interested parties. In addition, the procedures lay out the requirements set forth by FERC Code of Conduct and requirements for communications and/or transactions between affiliates.

For a copy of the procedures, please see the Gas Supply (GS) Procedures filed in Docket No. G007,011/AI-06-1416

## **Trading Policies**

MERC traders determine supply requirements for MERC customers on a daily and monthly basis. On a monthly basis it is MERC's policy to purchase and schedule the required flowing natural gas supply and required storage injections or withdrawals based upon the forecast monthly requirements.

On a daily basis it is MERC's policy to purchase and schedule additional flowing gas supply and storage injections or withdrawals based upon changes from the monthly plan. In the event additional spot market supply is necessary, traders consider the most economic and operationally efficient option in deciding whether to purchase supply in the spot market, decrease injections, or increase storage withdrawals.

In the event there is more flowing supply than the daily requirement, traders consider the most economic and operationally efficient option in deciding whether to increase storage injections, decrease storage withdrawals, or sell the excess flowing supply.

## **Actions Taken to Minimize Gas Supply Costs**

MERC has three major gas supply objectives:

- Provide reliable natural gas
- Mitigate price volatility
- Provide reasonably price natural gas

MERC accomplishes this by utilizing three approaches:

- 1) Market Forces
- 2) FERC Monitoring
- 3) Conservation Improvement Programs (CIP)

### **1) Market Forces**

- MERC utilized an RFP process for purchases of one month or greater.
- MERC required a minimum of three bids from approved suppliers for supply purchased for a term of less than one month.

- MERC utilized a diverse hedging portfolio that has a mix of fixed price, storage, call options, FOM index and spot market supply.
- MERC implemented a winter hedging strategy of 40% index price, 30% storage and 30% financially protected.
- MERC used a dollar-cost-averaging approach to purchasing the supply defined in the hedging strategy.
- MERC traders base their daily and monthly gas supply procurement decisions on the most economic receipt points and/or the use of storage.
- MERC traders release excess firm pipeline transportation to generate capacity release revenue to decrease the transportation capacity costs.

## 2) FERC Interventions

MERC continually monitors Federal Energy Regulatory Commission (FERC) proceedings related to interstate pipeline activities as well as issues related to natural gas supply and pricing. The primary focus is on the interstate pipelines that MERC uses to deliver natural gas to its customers:

- Northern Natural Gas (NNG)
- Great Lakes Gas Transmission (GLGT)
- Viking Gas Transmission (VGT)
- Centra Pipelines (Centra)
- Bison Pipeline (Bison)
- Northern Border Pipeline (NBPL)
- ANR Pipeline (ANR)

### Key FERC Proceedings – July 1, 2018 through June 30, 2019

The following is a list of FERC proceedings MERC has participated in over the 2018-2019 AAA period.

Company	Filing Date	Docket No.	Description
ANR	11-03-16	CP17-9	Application to Implement Wisconsin South Exp. Project Filing
ANR	06-14-18	CP18-503	Prior Notice Application for Authorization to Abandon storage wells at Winfield Storage Field
ANR	02-27-19	CP19-102	Prior Notice Application for Authorization to replace segments of mainline in Kane County, IL
ANR	09-28-18	RP18-1247	Tariff filing re three separate non-conforming service agreements (associated with WISE project); eff 11-01-18

<b>Company</b>	<b>Filing Date</b>	<b>Docket No.</b>	<b>Description</b>
ANR	11-01-18	RP19-215	Tariff filing to amend ETS negotiated rate service agreement with WEPCO to be effective 11-1-18
ANR	02-27-19	RP19-403	FERC Form 501-G filing in compliance with Order No. 849 (re 2017 Tax Reform)
ANR	02-28-19	RP19-741	Tariff Fuel Reimbursement Adjustment and EPC Charges Filing
ANR	03-01-19	RP19-766	Tariff filing re two negotiated rate service agreements with WPL (associated with WISE project); effective 04-01-19
ANR	03-01-19	RP19-769	Tariff filing re two negotiated rate service agreements with WPS; effective 4-1-19
ANR	04-08-19	RP19-1115	Compliance filing - Waiver request re Gulf Coast Project
Centra	11/15/18	RP19-294	FERC Form 501-G filing in compliance with Order No. 849
Centra	11-30-18	RP19-294-001	Revised FERC Form 501-G filing in compliance with Order No. 849 with explanation
Centra	12-19-18	RP19-294-002	Tariff filing re revised FERC Form 501-G filing
GLGT	12-06-18	RP19-399	FERC Form 501-G filing in compliance with Order No. 849
GLGT	12-06-18	RP19-409	Tariff filing re Limited Section 4 2% Tax Reduction Filing to be effective 02-01-19
GLGT	02-11-19	RP19-652	Tariff filing re FSA pressure commitment
NBPL	08-01-18	RP18-1038	Tariff filing re revisions to update firm capacity bid evaluation process effective 11-01-18
NBPL	09-24-18	RP18-1038-001	Tariff filing to comply with FERC Order subject to condition
NBPL	09-24-18	RP18-1038-002	Amended tariff filing to comply with FERC Order
NBPL	10-16-18	RP18-1038-003	Motion for Leave to Answer Request for Clarification or rehearing by indicated shippers
NBPL	12-06-18	RP19-411	FERC Form 501-G filing in compliance with Order No. 849
NBPL	12-06-18	RP19-414	Tariff filing re Limited Section 4 2% Tax Reduction Filing to be effective 02-01-19
NBPL	04-04-19	RP19-414-001	Compliance tariff filing re Amended Settlement
NBPL	03-26-19	RP19-886	Tariff filing re Annual Compressor Usage Surcharge 2019

<b>Company</b>	<b>Filing Date</b>	<b>Docket No.</b>	<b>Description</b>
NNG	08-28-17	CP09-465-002	Motion filing by Kansas Corp Com re NNG failure to comply with FERC order re Cunningham Storage Field buffer zone
NNG	06-24-16	CP16-472	Section 7 Application to Build and Operate Pipeline and Compression in Minnesota Filing
NNG	07-29-16	CP16-487	Section 7 Application to Construct and Operate 7.86 Miles of 20' Pipeline Facilities in Dakota County, MN Filing
NNG	03-15-17	CP17-76	Install and Operate New Compressor Station in Worth County, Iowa Filing
NNG	04-28-17	CP17-434	Installation and operation of pipeline loop in Iowa
NNG	06-22-17	CP17-466	Filing to install Bakersfield Compressor station in Texas
NNG	02-05-18	CP18-81	Authorization request of Marquette Branch Line Expansion Project
NNG	07-27-18	CP18-534	Section 7 Application for Northern Lights 2019 Expansion Project including Rochester Expansion component
NNG	12-29-18	CP19-35	Prior notice filing for authorization re Ventura North 2019 E-Line Extension Project
NNG	01-25-19	CP19-57	Advance notice of replacement (like-for-like) of compression facilities (Mullinville Compressor Station)
NNG	06-06-19	CP19-479	Application to abandon A and J line and construction compression facilities at Tescott compressor station.
NNG	10-11-18	RP19-59	FERC Form 501-G filing in compliance with Order No. 849
NNG	12-31-18	RP19-529	Tariff filing re revisions to negotiated rate agreements
NNG	02-01-19	RP19-634	Tariff filing re Field Area and Storage Fuel percentages for the 4-1-19 thru 3-31-20 period as well as UAF percentages
NNG	05-01-19	RP19-1206	Filing to establish the Market Area fuel percentage for the 11-1-19 thru 3-31-20
VGT	09-28-18	RP18-1249	Semi-Annual Fuel and Loss Retention (FLRP) Percentages to become effective 11-1-18
VGT	10-03-18	RP19-37	Tariff filing re amendments to non-conforming and negotiated rate agreements with Wisconsin Gas
VGT	12-6-18	RP19-386	FERC Form 501-G filing in compliance with Order No. 849
VGT	02-11-19	RP19-651	Tariff filing re Refusal of Out of Quality Specifications

Company	Filing Date	Docket No.	Description
			Gas
VGT	03-01-19	RP19-782	Tariff filing re revision to Annual LMCRA eff 4-1-19
VGT	03-01-19	RP19-785	Semi-Annual Fuel and Loss Retention (FLRP) Percentages to become effective 4-1-19

### 3) Energy Conservation Actions

MERC's growth in sales volumes is partially offset by conservation. Conservation occurs in four ways:

1. Customer response to higher gas prices when they occur.
2. Appliance replacement trends that occur when customers replace gas-fueled appliances with more efficient and modern equipment.
3. New construction that incorporates updated building and energy efficiency standards and more efficient appliances.
4. Conservation programs undertaken by the Company.

MERC's 2019 budget includes \$12,246,800 for conservation programs.

Minnesota Statute § 216B.241 requires MERC to invest in cost-effective conservation improvements through its Conservation Improvement Program (CIP). The company is required to file triennially with the Department of Commerce a CIP Plan outlining its goals, budgets and cost effectiveness analyses for the next planning cycle. MERC's most recent triennial CIP Plan was filed on June 1, 2016, covering the years 2017-2019, in Docket No. G011/CIP-16-120. That plan was extended through 2020 in a decision issued April 11, 2019, and MERC filed its compliance filing related to that extension on July 1, 2019. Approval of the extension plan is pending.

Additionally, MERC is required to file an annual CIP Status Report with the Department of Commerce, which details the cost effectiveness and spending for the prior year's CIP program. MERC's 2018 CIP Status Report was filed on May 1, 2019, in Docket No. G011/CIP-16-120.02.

The current versions of these reports and Department decisions are available on the Department of Commerce's e-docket system.



**MERC-CON**

**ANNUAL REPORT**

**AUTOMATIC ADJUSTMENT CHARGES MINNESOTA RULE 7825.2810**

**August 30, 2019**

**I. Minnesota Rule 7825.2810, subpart 1**

- A. The commission-approved base cost of fuel or gas as defined by part 7825.2400, subpart 4 or 4a;**

Schedule (A).

- B. Billing adjustment amount, such as Kwh, Mcf, Ccf, or Btu, charged customers for each type of energy cost, such as nuclear, coal, purchased power, purchased gas by major component, peak shaving gas, or manufactured gas;**

Schedules (B & E).

- C. Billing adjustment amounts, by gas supplier, that were used to bill the utility during the reporting period;**

Schedules (C & D).

- D. The total cost of fuel or gas delivered to customers including, for gas utilities, the cost of supply-related services;**

Schedules (C & D).

- E. The revenues collected from customers for energy delivered;**

Schedules (B & E).

- F. The amount of supplier refunds received as defined by part 7825.2700; and**

Schedules (F & G).

- G. The amount of refunds credited to customers.**

Schedules (F & G).

**II. Minnesota Rule 7825.2810, subpart 2**

**A. Purchased gas adjustment rule variance in effect or requested during the 12-month reporting period and reasons why those variances were necessary;**

Minnesota Energy Resources Corporation ("MERC" or the "Company") requested, and the Commission approved, a four-year variance from the requirements of Minnesota Rules 7825.2400, 7825.2500, and 7825.2700 in Docket No. G011/M-17-85, to June 30, 2021. The variance was necessary to permit MERC to use the Purchased Gas Adjustment ("PGA") to recover the incurred costs of financial instruments used for hedging purposes in securing natural gas supplies for Minnesota customers.

**B. Changes in demand contracted for during the reporting period and reasons for those revisions;**

There was an increase of 3,050 dth/day in demand contracted for effective November 1, 2017, filed in Docket No. G011/M-17-587. The MERC-CON design day increased by 738 dth. MERC increased its Great Lakes pipeline capacity by 1,550 dth/day, and its Viking pipeline capacity by 1,500 dth/day. The 1,500 dth/day added to the Viking pipeline capacity offset 1,500 dth/day MERC procured through the use of a delivered commodity product during the previous winter season.

There was no change in demand contacted for effective November 1, 2018, filed in Docket No. G011/M-18-527. The MERC-CON design day increased by 204 dth.

MERC entered into a four-year contract for natural gas storage with ANR Pipeline Storage effective April 1, 2018, to replace the Company's previous contract for natural gas storage with Niska Gas Storage. MERC submitted a request for approval of its ANR Storage Contract on January 8, 2018, in Docket No. G011/M-17-587, which was approved by the Commission by Order dated May 25, 2018.

**C. The level of customer-owned gas volumes delivered through the utility's distribution system under retail transportation tariffs during the reporting period; and**

MERC transported 7,501,367 Dth to customers under its retail transportation tariffs during the period of July 1, 2018, through June 30, 2019.

**D. A brief explanation of deviations between gas cost recovery and actual gas cost during the reporting period.**

The total MERC-CON cost is an over recovery of 5.05% for this AAA period.

MERC-Consolidated's demand-related cost has an over recovery of 43.42% for this PGA period. The over collection of demand costs was caused by capacity release revenues and actual sales being higher than projected sales.

MERC-Consolidated's commodity cost has an under recovery of 0.87% for this PGA period. The under collection was predominantly caused by higher gas costs.

MERC is concurrently filing an Excel spreadsheet that provides an analysis of the over and under recoveries.

## **Summary of Schedules**

### **Schedule (A)**

Schedule A, page 1, shows the base costs recovered through sales rates for MERC-CON. Schedule A, page 2, shows the base cost of gas submitted to the Commission in Docket No. G011/MR-17-564 effective January 1, 2018, for MERC-CON.

### **Schedules (B & E)**

Schedules B and E are combined on a worksheet titled "Summary of Revenue Billed and Sales Volumes." Page 1 of this schedule shows volumes, customers, and revenues billed for the 12 months in the reporting period. Transport volumes and revenue that are related to the PGA for the 12 months in the reporting period are listed at the bottom of page 1. In addition, pages 2 through 13 are the monthly PGA rates by class and component billed to customers during the reporting period.

### **Schedules (C & D)**

Schedules C and D have been combined on a worksheet called "Summary of Purchased Volumes and Costs." Page 1 of this schedule shows total volumes and costs by demand and commodity component and by supplier.

### **Schedule (D.1)**

Schedule D.1 shows the allocation of purchased gas costs by customer class by demand and commodity component.

### **Schedule (D.2)**

Schedule D.2, pages 1 and 2, show the (over) under recovery by class and by demand and commodity component by month.

### **Schedule (D.3)**

Schedule D.3, pages 1 and 2, show the recovery by demand and commodity by type, by class, and by month. Pages 3 and 4 show the cost by demand and commodity by type, by class, and by month. Pages 5 and 6 summarize the annual recovery as compared to cost and the (over) under collection by demand and commodity by type and by class.

### **Schedules (F & G)**

Schedules F and G are combined on a worksheet called "Summary of Supplier Refunds and Refunds Credited to Customers." This worksheet shows supplier refunds received and distributed to customers during the reporting period. No refunds were credited to customers via the PGA during the reporting period.

### **Schedule H**

Schedule H summarizes the (over) under recovery of purchased gas costs.

**Schedule I**

Schedule I summarizes the capacity released during the reporting period.

**Schedule J**

Schedule J summarizes the pipeline daily scheduling charges incurred during the reporting period.

**Schedule K**

No Schedule K is included in this filing.

**Schedule L**

Schedule L sets out the information required in the Commission's orders in Docket Nos. G007,011/M-06-1358; G007,011/M-09-262; G007,011/M-13-207; G011/M-15-231; and G011/M-17-85. The orders in these dockets require MERC to include data on the relative benefits of price hedging contracts, including the average cost per dekatherm for natural gas purchased under financial instruments compared to the comparable monthly and daily spot index prices, in its annual AAA report, together with:

- a. a list of each hedging instrument entered into;
- b. the total volumes contracted for each instrument; and
- c. the net gain or loss, including all transaction costs for each instrument in comparison to the appropriate monthly and daily spot prices.

**Schedule M**

Schedule M, page 1, shows the calculation of PGA revenues for the period July 1, 2016, through June 30, 2017, that were billed on and after July 1, 2018. Page 2 shows the calculation of PGA revenues for the period July 1, 2017 through June 30, 2018 that were billed on and after July 1, 2018. This schedule is necessary in order to capture all of the PGA revenue for the 12-month period of the current AAA report.

**Schedule N**

No Schedule N is included in this filing.

**Schedule O**

Schedule O provides information required by the Commission's orders in Docket Nos. G007,011/M-09-262; G-007,011/M-11-296; G007,011/M-13-207; G011/M-15-231; and G011/M-17-85. The orders in these dockets require MERC to provide a full post-mortem analysis of the Company's hedged volumes for the preceding heating season compared to other hedging strategies (including, but not limited to, the alternative hedging strategy discussed in the Department of Commerce, Office of Energy Security's (now the Department of Commerce, Division of Energy Resources) April 30, 2009 Comments, Attachment 2 in Docket No. G007,011/M-09-262) and the prevailing market prices strategy. An Excel spreadsheet providing the supporting information for the post-mortem analysis is being provided concurrently with this filing.

## Schedule P

In Docket No. G999/AA-08-1011, the Commission also ordered MERC to provide the following information regarding its hedging program:

- (a) A clearly defined and quantified description of the risk (i.e., catastrophic or other type of event) the companies are insuring against by implementing the hedging strategies. The Company shall include a clearly defined and quantified estimate of the probability of these events occurring.

This information is provided in Schedule P, pages 1-5.

- (b) A quantitative analysis of the value of reducing price volatility and managing price risk (the cost and benefit of these programs to all customers and the companies) that includes:

- (1) A comparison of what actual low, average, and high usage customer bills (on a monthly basis) would have been with and without the use of financial hedging strategies as implemented during the relevant time period.

MERC calculated the average monthly residential usage for each PGA and then applied +/- 20% to determine high and low use customer impacts. The actual PGA rate was used to determine an alternate PGA rate without hedging by removing the actual results of the hedge portfolio. This analysis results in the tables shown in Schedule P, page 6.

- (2) A comparison of what these customer bills would have been under budget billing, assuming normal gas usage for low, average, and high usage customers, and assuming catastrophically high winter prices.

As discussed above, MERC applied a +/- 20% factor to average residential volumes and then looked at the impacts of hedging in a catastrophic price environment. This analysis is shown on Schedule P, page 7.

Further, the difference in volatility in PGA commodity prices is shown on Schedule P, page 8.

- (c) A quantitative definition of "catastrophically high prices" (in absolute and relative terms), and a bill analysis that shows how these prices would impact low, average and high usage customer bills.

MERC took a statistical approach to calculate "catastrophically high prices" using the following steps. This approach is also summarized in Schedule P, pages 1-5. The impact of catastrophically high prices is shown in Schedule P, page 7, as discussed above.

- (1) MERC utilized the NYMEX forward curve dated May 15, 2018.

- (2) MERC considered the market expectations of gas price volatility (implied volatility) from May 15, 2018 through June 1, 2019.
  - (3) Based on the data in (1) and (2), MERC looked at how prices changed from May 15, 2018, through June 1, 2019. As a general rule, the farther out in time, the more prices can change. The possible range of actual prices that could be experienced in July 2018 is much smaller than in June 2019. In other words, there is more time for prices to change from the forward curve on May 15, 2018.
  - (4) MERC utilized a Monte Carlo model and calculated 1,000 different price paths. MERC looked at the top 25 prices (2.5%) and used the 25<sup>th</sup> price as the catastrophic price event. There is only a 2.5% chance of prices being at that price or higher.
  - (5) The result is that on May 15, 2018, there was only a 2.5% chance of the average price from July 2018 to June 2019 being higher than \$3.79/Dth. Similarly, there was only a 2.5% chance of the price in January 2019 being higher than \$4.48/Dth.
- (d) Additional information on the embedded cost/benefit associated with physical hedges used in the procurement of gas supplies.

MERC does not purchase physical hedges; only financial products are used.

### **Schedule Q**

Schedule Q, pages 1 and 2, reflect all bills rendered by MERC during the 2018-2019 AAA period for third-party damage to MERC facilities. Per the Commission's order point issued on October 11, 2012, in Docket No. G999/AA-10-885, Schedule Q lists the date of the incident, party responsible for the damage, gas cost amount for each incident, and the gas lost amount for each incident. In accordance with the Commission's February 27, 2019 Order Accepting Gas Utilities' Annual Automatic Adjustment Reports and 2016-2017 True-up Proposals and Setting Further Requirements in Docket No. G999/AA-17-493, MERC has included totals in Schedule Q.

In instances where gas losses occur due to damage, MERC bills lost gas charges to the party responsible for damages. Any revenue collected from those third parties are netted against the commodity cost, thereby reducing the overall gas costs for the AAA period. For the 2018-2019 gas year, MERC-Consolidated credited \$10,995.29 to commodity.

### **Meter Testing Program**

In its October 11, 2012, Order in Docket No. G999/AA-10-885, the Commission required all natural gas utility companies to file any updates regarding meter testing within an annual period in their AAA reports. In comments filed in Docket No. G999/AA-14-580, MERC agreed to provide its meter testing results on a calendar year basis starting with the year 2014.



During the time period of January 1, 2018, through December 31, 2018, MERC tested 6,872 meters as part of its meter testing program. Of those meters tested, 6,488 (94.4%) tested between 98% and 102% accurate. 328 meters (4.8%) tested greater than 102% accurate, 54 meters (0.80%) tested less than 98% accurate, and 2 meters (0.0%) had no test due to the meter being damaged.

### Unauthorized Use of Gas

In its Order dated February 27, 2019, in Docket Nos. G011/AA-17-654, G011/AA-17-655, and G011/AA-17-656, the Commission required that all utilities in the next three AAA Reports provide the following information on unauthorized gas use for each customer that did not comply with a called interruption(s) during the heating season:

- a. The volume of gas consumed by the non-compliant customer during the curtailment period;
- b. The specific commodity rate charged for the unauthorized gas used and how that rate is determined;
- c. The financial penalty, if any, assessed by the company on the customer, including calculations used to determine the penalty or penalties; and
- d. A discussion about utility communication with each customer regarding noncompliance with interruptions (excluding invoices).

MERC called two curtailments during this AAA period, both on January 30, 2019. In total, 14 MERC-Consolidated customers were called to curtail. The chart below shows the unauthorized gas use by MERC-Consolidated customers during the curtailments

Date of Unauthorized Usage	Unauthorized Usage (in therms)	Financial Penalty*
1/30/2019	485.8	\$2,429.00

\*A financial penalty of \$5.00 per therm was assessed per MERC's tariff.

A commodity rate of \$0.29662 per therm was charged to transportation customers per Great Lakes Gas Transmission January 2019 imbalance cash out rates. Commodity rates of \$0.38706 per therm were charged to Small and Large Volume Interruptible System Sales customers for unauthorized gas use based on the MERC-Consolidated January 2019 PGA filings.

In total, of the 14 customers called to curtail, 5 had unauthorized usage during the curtailment period. MERC maintains and operates a customer notification system that is used to contact customers via phone (voice and/or text message) and email when MERC declares a gas curtailment. The customers that used unauthorized gas were notified prior to the curtailment start time. A total of 35 direct contacts with live persons, 31 voicemails, 38 faxes, 54 email, and 90 text messages were sent out during this AAA period.

## Lost and Unaccounted for (“LUF”) Gas Investigation Report

Ordering Paragraph 15 of the Commission’s February 27, 2019, Order Accepting Gas Utilities’ Annual Automatic Adjustment Reports and 2016-2017 True-Up Proposals and Setting Further Requirements (“Order”), in Docket No. G999/AA-17-493 required MERC to submit, within 30 days of the Commission’s Order, a compliance filing outlining a plan to investigate its lost and unaccounted for (“LUF”) gas. Ordering paragraph 16 further requires that MERC file a report on the results of that investigation with the Company’s Fiscal Year 2019 Annual Automatic Adjustment (“AAA”) Report to be filed by September 3, 2019.

MERC submitted its Compliance Filing on March 26, 2019, proposing a plan to further investigate negative LUF on the NNG-PGA. On April 25, 2019, the Department filed comments recommending that MERC conduct the investigation into negative LUF for both the NNG and Consolidated-PGA. On May 6, 2019, MERC filed reply comments in Docket No. G999/AA-18-374 agreeing that it would conduct an investigation for both the NNG and Consolidated PGAs.

With the 2016-2017 AAA reports in Docket No. G999/AA-17-493, the Department noted that with respect to MERC-NNG’s reported negative LUF, “MERC has had a long, and well-documented, history of negative LUF,” and concluded that the LUF percentages reported were reasonable.<sup>1</sup> Below is a summary of MERC’s LUF%’s in its three PGA areas over the last six AAA periods:

Year	LUF Gas %-- MERC NNG	LUF Gas % - Albert Lea	LUF Gas % -- MERC CON
2018-2019	(0.98%)	n/a	(0.90%)
2017-2018	(1.40)%	n/a	(0.84%)
2016-2017	(2.43)%	2.841%	(1.36%)
2015-2016	(1.46)%	1.78%	0.25%
2014-2015	(0.78)%	0.13%	5.37%
2013-2014	(2.82)%	n/a	0.38%

As reflected in the above table, the annual LUF percentage for the MERC Consolidated PGA has generally varied between a slight positive and slight negative LUF year-to-year, which is expected in light of MERC’s sales being accounted for on a revenue cycle as compared gas purchases being accounted on a monthly basis. The LUF for the Consolidated PGA for the period July 1, 2018-June 30, 2019 is (- 0.9%). While this is clearly in the range of reasonableness, MERC nevertheless conducted further analysis to determine if the negative LUF could be attributed to any particular factor.

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<sup>1</sup> Review of 2016-2017 Annual Automatic Adjustment Reports, Docket No. G999/AA-17-493, Department Comments at 67 (Dec. 4, 2018).

MERC audited its purchases at each Consolidated PGA Town Border Station ("TBS") against the sales made to customers behind each TBS for the July 2018 – June 2019 AAA reporting period. Purchases by TBS for a calendar month are relatively straightforward because the pipeline metering data is readily available. Sales data, however, reflects meter data that is collected in cycles throughout the month, so some measure of variances by month are expected. Variances would, therefore, be expected to be positive some months and negative in others. This was borne out in the analysis.

The sales data by TBS was determined by grouping customers by mailing address to the closest TBS. Again, some variances were to be expected here. Mailing addresses would not be a perfect match to a TBS, especially since some communities shared mailing addresses yet could be connected to different TBS on different pipelines (e.g., the towns surrounding Grand Rapids can be connected to either Great Lakes pipeline or NNG pipeline).

Despite those caveats, all but two TBS within the Consolidated PGA had annual LUF %'s between -2% to +2%, which the company concluded to be reasonable and not likely to reflect any error in measurement. One TBS on Great Lakes was -3%. Only one TBS in the Viking area warranted further review: Audubon, at -26%. Therefore we concentrated further analysis on the Viking Pipeline.

Audubon is located in relative proximity to the Detroit Lakes TBS and the Frazee TBS, and these distribution areas are not in the vicinity of another pipeline. The LUF % was only -3% when combining the throughput and the sales for the three TBS. Therefore we determined that mailing addresses were likely the cause of the TBS variances at Audubon, not a billing discrepancy.

MERC also reviewed the BTU factors obtained from Viking pipeline to determine if there may be any significant differences between stations. The BTU factor converts measured gas volumes (CCF) into the heating value of the natural gas (therm). Heating values of natural gas vary depending on the source of the gas. Because the BTU factors are directly downloaded from the pipeline to the MERC billing system, it is likely that the only way the BTU factors would be an issue is if customers were erroneously assigned to a BTU area that was significantly different than the gas they were actually consuming. The two stations in Minnesota used by Viking Pipeline produce daily factors that are closely correlated, so it was determined that a classification error would be unlikely to cause a material variance within a pipeline zone. With regards to BTU factors, it is also useful to note that the daily factors are averaged to determine the monthly BTU factor to be applied to a customer's metered usage. These averages are not weighted, so some inaccuracies may occur simply based upon the customer load profiles.

As noted previously, the meter testing program results for MERC have tended toward accuracy readings in excess of 100% (i.e., fast meters) so a negative LUF% would tend to be more likely than a positive LUF%. Prior years' experiences in the Consolidated PGA area do not show a consistent negative LUF% but rather have fluctuated between positive and negative. An audit of throughput by TBS and a review of BTU factors did not identify any systemic measurement issues or errors. The negative LUF for the Consolidated PGA of (-0.90%) is reasonable and no further analysis is warranted at this time.

Most importantly, it should be noted that MERC does not benefit from negative LUF gas. The AAA true-up process accounts for any differences between actual gas costs and the gas costs billed to sales customers.

**MERC-CON**

<p><b>ANNUAL AUDITOR'S REPORT</b> <b>MINNESOTA RULE 7825.2820</b></p>
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**August 30, 2019**

## INDEPENDENT ACCOUNTANTS' REPORT

To the Board of Directors  
Minnesota Energy Resources Corporation

We have examined the accompanying exhibits as listed below (collectively, "the Exhibits") of the Annual Automatic Adjustment Report prepared in accordance with Minnesota Rule 7825.2390 to 7825.3000 ("Fuel Rules") for the Consolidated PGA System for the period from July 1, 2018 through June 30, 2019, to be filed by Minnesota Energy Resources Corporation ("the Company"), an indirect wholly owned subsidiary of WEC Energy Group, Inc., with the Minnesota Public Utility Commission ("the Commission").

- Schedule A: Summary of Base Cost of Gas Recovered
- Schedule B and E: Summary of Revenue Billed and Sales Volumes
- Schedule C and D: Summary of Purchased Volumes and Costs
- Schedule F and G: Summary of Supplier Refunds
- Schedule H: Over/Under Recovery of Purchased Gas Costs Summary
- Schedule I: Capacity Release Summary

The Company's management is responsible for the Exhibits. Our responsibility is to express an opinion on the Exhibits based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether the Exhibits are in accordance with the Fuel Rules, in all material respects. The nature, timing, and extent of the procedures selected depend on our judgement, including an assessment of the risks of material misstatement of the Exhibits, whether due to fraud or error. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

In our opinion, the Exhibits for the Consolidated PGA System for the period from July 1, 2018 to June 30, 2019, are presented in accordance with the Commission Fuel Rules, in all material respects.

We did not examine any of the schedules other than those explicitly listed above. Accordingly, we do not express an opinion on any of the other schedules.

This report is intended solely for the information and use of WEC Energy Group, Inc., the Company, including its Board of Directors, and the Commission, and is not intended to be and should not be used by anyone other than these specified parties.

*Deloitte & Touche LLP*

August 30, 2019

**MERC-CON**

<p><b>STATEMENT ON GAS COST PROJECTIONS</b> <b>MINNESOTA RULE 7825.2830</b></p>
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**August 30, 2019**

The major cost components of providing gas service are gas commodity, storage, and transportation. Each component is discussed below:

Gas commodity is typically the most significant component of total delivered gas cost. As Table 1 (below) shows, the 2018-2019 period was marked with relatively stable monthly prices. There was an increase in December 2018 monthly prices as a result of cold weather early in the winter coupled with lower than normal storage inventories. Daily prices were volatile during the late January and early March periods during extreme cold. NYMEX natural gas prices for the winter of 2019-2020 are currently trading at an average price of \$2.74, compared to average actual prices in the winter of 2018-2019 of \$3.47.

**Table 1: MERC Index Prices**  
*Quote Date 6-Jun-19*

<b>Delivery Month</b>	<b>NYMEX NG</b>	<b>Emerson Viking</b>	<b>Northern Ventura</b>
<b>Jul-18</b>	2.9960	2.5860	2.6500
<b>Aug-18</b>	2.8220	2.6420	2.6400
<b>Sep-18</b>	2.8950	2.7550	2.6800
<b>Oct-18</b>	3.0210	2.8110	2.8500
<b>Nov-18</b>	3.1850	3.1350	3.4700
<b>Dec-18</b>	4.7150	4.6650	5.0600
<b>Jan-19</b>	3.6420	3.5920	4.6900
<b>Feb-19</b>	2.9500	2.9000	3.2900
<b>Mar-19</b>	2.8550	2.8050	2.8300
<b>Apr-19</b>	2.7130	2.4780	2.4800
<b>May-19</b>	2.5660	2.2860	2.1700
<b>Jun-19</b>	2.6330	2.2580	2.2000
<b>Jul-19</b>	2.4160	2.0660	2.1335
<b>Aug-19</b>	2.4190	2.0290	2.1690
<b>Sep-19</b>	2.4110	2.0260	2.0760
<b>Oct-19</b>	2.4640	2.0690	2.1540
<b>Nov-19</b>	2.5540	2.4240	2.3815
<b>Dec-19</b>	2.7410	2.8410	3.2235
<b>Jan-20</b>	2.8490	2.9865	3.5990
<b>Feb-20</b>	2.8140	2.9640	3.5540
<b>Mar-20</b>	2.7190	2.7365	2.6590
<b>Apr-20</b>	2.5110	2.0985	2.3235
<b>May-20</b>	2.4820	2.0695	2.2045
<b>Jun-20</b>	2.5170	2.1045	2.2145

Natural gas reserves continue to be at historically high levels and this, coupled with advances in shale drilling technology, results in a well-supplied market. Increased demand for gas from the electric generation sector will put some upward pressure on prices, but supply/potential supply is likely to continue to outpace demand.

MERC has implemented a hedging strategy for the 2019-2020 winter season (November through March). The goal of the hedging plan is to mitigate price volatility while continuing to supply reasonably priced gas. The hedge strategy utilizes financial instruments as a percentage of winter requirements at levels of about 10 percent futures and 20 percent call

options. An additional 30 percent is expected to be withdrawn from storage and the remaining 40 percent will be purchased at monthly physical index prices. The hedging strategy utilizes a dollar-cost-averaging approach, whereby financial and physical (storage) supply hedges are put in place from May 2018 through October 2018 for each of the winter months (November 2018 through March 2019).

Storage is another key component in providing overall gas service. There are three major value components of storage: seasonal price arbitrage, daily operational flexibility, and reliability. The value of seasonal price arbitrage is dependent upon the winter and summer pricing differential, which varies in value each year. Storage provides a high degree of flexibility for MERC to increase and decrease supply with weather related demand. Storage also increases reliability because MERC controls the supply. For the most part, storage costs are controlled by long-term service agreements with pipelines, and therefore, prices do not react to changing market conditions as rapidly as gas commodity prices react.

Pipeline transportation is the final major component affecting gas cost to the city gate. Maximum transportation rates are regulated by FERC, but there are other factors that can influence transportation cost. Pipeline rates may be discounted if there is a competitive pipeline alternative in a market. Additionally, if a market area has more pipeline capacity than market demand, participants can possibly rely upon interruptible pipeline capacity, which puts downward pressure on the value of the capacity. If an area is capacity constrained, the capacity has greater value. If the market is working properly, these mismatches between demand and capacity will eventually correct; however, there may be several years before the benefit or cost of the correction will work its way into pricing.



# MINNESOTA ENERGY RESOURCES - Consolidated

12 MONTHS ENDED JUNE 2019  
SUMMARY OF BASE COST OF GAS RECOVERED

Schedule A

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8/22/2019

CON	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
<b>GS</b>													
Dth*	74,521	79,395	160,006	418,264	669,843	807,046	1,016,761	950,799	758,170	437,951	251,101	92,534	5,716,390
Base Rate	\$3.8990	\$3.8990	\$3.8990	\$3.8990	\$3.8990	\$3.8990	\$3.8990	\$3.8990	\$3.8990	\$3.8990	\$3.8990	\$3.8990	\$3.8990
<b>Total \$</b>	<b>\$290,556</b>	<b>\$309,561</b>	<b>\$623,863</b>	<b>\$1,630,814</b>	<b>\$2,611,718</b>	<b>\$3,146,675</b>	<b>\$3,964,354</b>	<b>\$3,707,168</b>	<b>\$2,956,106</b>	<b>\$1,707,573</b>	<b>\$979,042</b>	<b>\$360,790</b>	<b>\$22,288,221</b>
<b>SVI/LVI</b>													
Dth*	14,843	16,781	23,038	58,393	86,388	84,820	106,417	96,940	76,659	48,854	29,785	13,478	656,395
Base Rate	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575
<b>Total \$</b>	<b>\$46,868</b>	<b>\$52,987</b>	<b>\$72,741</b>	<b>\$184,375</b>	<b>\$272,769</b>	<b>\$267,818</b>	<b>\$336,013</b>	<b>\$306,089</b>	<b>\$242,050</b>	<b>\$154,257</b>	<b>\$94,045</b>	<b>\$42,558</b>	<b>\$2,072,569</b>
<b>SVJ</b>													
Dth*	78	246	867	4,178	1,810	2,044	2,999	2,681	2,079	1,152	618	106	18,857
CD Units	58	58	58	58	58	58	58	58	58	58	58	58	696
Base Rate Com	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575	\$3.1575
Base Rate Dem	\$22.2450	\$22.2450	\$22.2450	\$22.2450	\$22.2450	\$22.2450	\$22.2450	\$22.2450	\$22.2450	\$22.2450	\$22.2450	\$22.2450	\$22.2450
Commodity \$	\$246	\$776	\$2,738	\$13,193	\$5,715	\$6,454	\$9,468	\$8,464	\$6,564	\$3,638	\$1,952	\$336	\$59,542
Demand \$	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$15,483
<b>Total \$</b>	<b>\$1,537</b>	<b>\$2,066</b>	<b>\$4,028</b>	<b>\$14,483</b>	<b>\$7,005</b>	<b>\$7,744</b>	<b>\$10,758</b>	<b>\$9,754</b>	<b>\$7,854</b>	<b>\$4,928</b>	<b>\$3,242</b>	<b>\$1,626</b>	<b>\$75,025</b>
<b>TOTAL</b>													
Dth*	89,442	96,422	183,911	480,836	758,040	893,910	1,126,177	1,050,420	836,907	487,957	281,503	106,118	6,391,642
CD Units	58	58	58	58	58	58	58	58	58	58	58	58	696
Commodity \$	\$337,670	\$363,323	\$699,342	\$1,828,383	\$2,890,202	\$3,420,947	\$4,309,834	\$4,021,721	\$3,204,720	\$1,865,468	\$1,075,038	\$403,683	\$24,420,332
Demand \$	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$1,290	\$15,483
<b>Total \$</b>	<b>\$338,960</b>	<b>\$364,613</b>	<b>\$700,633</b>	<b>\$1,829,673</b>	<b>\$2,891,492</b>	<b>\$3,422,237</b>	<b>\$4,311,125</b>	<b>\$4,023,012</b>	<b>\$3,206,010</b>	<b>\$1,866,758</b>	<b>\$1,076,329</b>	<b>\$404,973</b>	<b>\$24,435,814</b>

\*Monthly quantity, in Dths, delivered to customers.

**Note:** Due to rounding and other considerations, the total amounts reported may not aggregate in total for the month and/or year.

# MINNESOTA ENERGY RESOURCES - Consolidated

Schedule A

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8/22/2019

## SUMMARY OF BASE COST OF GAS RECOVERED

EFFECTIVE: January 1, 2018

### BASE COST OF GAS

As approved in Docket No. G011/MR-17-564

Based on 5-15-17 NYMEX, 2016 forecasted sales volumes and 2018 projected contract rates.

#### I. CONSOLIDATED DEMAND - GS

Total Annual Demand Costs (\$)	\$3,587,907
Annual Firm Sales (therms)	48,386,934
<b>Consolidated Demand Cost (\$/therm)</b>	<b>\$0.07415</b>

#### II. COMMODITY COSTS - GS, SVI, LVI, SVJ, LVJ, SLVI

##### A. Gas Commodity Costs

Total Cost of Gas Commodity	\$18,280,185
Annual Sales less Co. Use and L & U	57,893,756 therms
<b>Commodity Base Cost of Gas</b>	<b>\$0.31575 /therm</b>

Gas Costs based upon May 15, 2015 NYMEX pricing

#### III. CONSOLIDATED DEMAND COSTS ASSIGNED TO JOINT RATES - SVJ, LVJ

Total Annual Demand Costs (\$)	\$3,587,907
Annual Firm Sales (therms)	48,386,934
<b>Total Joint Demand Rate (\$/therms per day)</b>	<b>\$0.07415</b>
<b>Total Joint Demand Rate (\$/therms per Month)</b>	<b>\$2.22451</b>

#### IV. COMMODITY BASE RATES

##### A. Firm - GS

Commodity Base Cost of Gas	\$0.31575 /therm
Firm Demand Base Costs	\$0.07415 /therm
<b>Firm Commodity Base Rate</b>	<b>\$0.38990 /therm</b>

##### B. Interruptible/Joint- SVI, LVI

Commodity Base Cost of Gas	\$0.31575 /therm
<b>Interruptible/Joint Commodity Base Rate</b>	<b>\$0.31575 /therm</b>

# MINNESOTA ENERGY RESOURCES - Consolidated

12 MONTHS ENDED JUNE 2019  
SUMMARY OF REVENUE BILLED AND SALES VOLUMES

	Prior Period Adjustment	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
<b>GS</b>	(Billed After July 1, 2017)													
Customers*		35,642	35,725	35,663	35,723	35,933	34,387	38,078	35,950	36,261	36,134	36,154	36,118	35,981
Dth**	0	74,521	79,395	160,006	418,264	669,843	807,046	1,016,761	950,799	758,170	437,951	251,101	92,534	5,716,390
Demand	\$0	\$51,479	\$54,846	\$110,532	\$288,937	\$551,213	\$664,118	\$836,693	\$782,412	\$623,898	\$360,390	\$206,631	\$76,146	\$4,607,295
Commodity	\$0	\$213,405	\$235,596	\$483,058	\$1,276,627	\$2,114,023	\$3,331,970	\$3,626,786	\$2,928,556	\$2,245,471	\$1,158,863	\$617,130	\$229,095	\$18,460,580
Transport		\$2,099	\$2,258	\$2,521	\$4,363	\$5,919	\$5,956	\$7,460	\$6,674	\$5,784	\$4,128	\$3,253	\$2,315	\$52,731
Monetary Adj.									\$0	\$0	\$0	\$0	\$0	\$0
<b>GS Total \$</b>	<b>\$0</b>	<b>\$266,983</b>	<b>\$292,700</b>	<b>\$596,110</b>	<b>\$1,569,927</b>	<b>\$2,671,156</b>	<b>\$4,002,044</b>	<b>\$4,470,938</b>	<b>\$3,717,642</b>	<b>\$2,875,153</b>	<b>\$1,523,381</b>	<b>\$827,014</b>	<b>\$307,557</b>	<b>\$23,120,606</b>
<b>SVI/LVI</b>														
Customers*		72	72	77	74	73	69	67	68	68	69	75	68	71
Dth**	0	14,843	16,781	23,038	58,393	86,388	84,820	106,417	96,940	76,659	48,854	29,785	13,478	656,395
Commodity	\$0	\$42,507	\$49,796	\$69,550	\$178,227	\$272,639	\$350,187	\$379,590	\$298,586	\$227,040	\$129,273	\$73,201	\$33,369	\$2,103,967
Transport		\$418	\$477	\$363	\$609	\$763	\$626	\$781	\$680	\$585	\$461	\$386	\$337	\$6,486
<b>INT Total \$</b>	<b>\$0</b>	<b>\$42,925</b>	<b>\$50,274</b>	<b>\$69,913</b>	<b>\$178,836</b>	<b>\$273,403</b>	<b>\$350,813</b>	<b>\$380,371</b>	<b>\$299,267</b>	<b>\$227,625</b>	<b>\$129,733</b>	<b>\$73,587</b>	<b>\$33,707</b>	<b>\$2,110,453</b>
<b>SVJ</b>														
Customers*		3	3	3	4	9	4	3	3	3	3	3	4	4
Dth**		78	246	867	4,178	1,810	2,044	2,999	2,681	2,079	1,152	618	106	18,857
CD Units		58	58	58	58	58	58	58	58	58	58	58	58	696
Commodity		\$223	\$729	\$2,618	\$12,753	\$5,712	\$8,438	\$10,696	\$8,256	\$6,157	\$3,048	\$1,519	\$263	\$60,414
Demand		\$1,202	\$1,202	\$1,202	\$1,202	\$1,432	\$1,432	\$1,432	\$1,432	\$1,432	\$1,432	\$1,432	\$1,432	\$16,263
<b>JT Total \$</b>		<b>\$1,425</b>	<b>\$1,931</b>	<b>\$3,820</b>	<b>\$13,955</b>	<b>\$7,144</b>	<b>\$9,870</b>	<b>\$12,128</b>	<b>\$9,688</b>	<b>\$7,589</b>	<b>\$4,480</b>	<b>\$2,951</b>	<b>\$1,695</b>	<b>\$76,677</b>
<b>TOTAL</b>														
Customers*		35,717	35,800	35,743	35,800	36,015	34,460	38,149	36,021	36,332	36,207	36,232	36,191	36,055
Dth**	0	89,442	96,422	183,911	480,836	758,040	893,910	1,126,177	1,050,420	836,907	487,957	281,503	106,118	6,391,642
Demand	\$0	\$2,681	\$6,048	\$11,734	\$29,139	\$52,645	\$66,550	\$83,124	\$78,844	\$62,330	\$36,182	\$20,063	\$7,578	\$4,623,558
Commodity	\$0	\$258,652	\$288,857	\$58,109	\$1,472,579	\$2,399,058	\$3,697,177	\$4,025,313	\$3,242,753	\$2,485,037	\$1,295,773	\$695,490	\$265,381	\$20,684,178
<b>Total \$</b>	<b>\$0</b>	<b>\$311,333</b>	<b>\$344,905</b>	<b>\$669,843</b>	<b>\$1,762,718</b>	<b>\$2,951,703</b>	<b>\$4,362,727</b>	<b>\$4,863,437</b>	<b>\$4,026,597</b>	<b>\$3,110,367</b>	<b>\$1,657,595</b>	<b>\$903,552</b>	<b>\$342,959</b>	<b>\$25,307,736</b>

	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	12-Month Total
<b>TRANSPORT</b>													
Balancing Service													
Rate	\$0.0700	\$0.0700	\$0.0700	\$0.0700	\$0.0700	\$0.0700	\$0.0700	\$0.0700	\$0.0700	\$0.0700	\$0.0700	\$0.0000	
Dth	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Balancing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Aggregation													
Rate	\$0.0425	\$0.0425	\$0.0425	\$0.0425	\$0.0425	\$0.0425	\$0.0425	\$0.0425	\$0.0425	\$0.0425	\$0.0425	\$0.0425	
Dth	59,231	64,348	67,848	116,999	157,243	154,870	193,898	173,040	149,854	107,977	85,630	62,418	1,393,355
Total Aggregation	\$2,517	\$2,735	\$2,884	\$4,972	\$6,683	\$6,582	\$8,241	\$7,354	\$6,369	\$4,589	\$3,639	\$2,653	\$59,218
<b>Total Transport</b>	<b>\$2,517</b>	<b>\$2,735</b>	<b>\$2,884</b>	<b>\$4,972</b>	<b>\$6,683</b>	<b>\$6,582</b>	<b>\$8,241</b>	<b>\$7,354</b>	<b>\$6,369</b>	<b>\$4,589</b>	<b>\$3,639</b>	<b>\$2,653</b>	<b>\$59,218</b>

\*The number of monthly customer charges billed during the calendar month.

\*\*Monthly quantity, in Dths, delivered to customers.

**Notes:** Due to rounding and other considerations, the total amounts reported may not aggregate in total for the month and/or year.

**MERC-Consolidated**Line

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**1 7. SUMMARY OF COST OF GAS RECOVERY RATES EFFECTIVE****July 1, 2018****2 A)****GS-Consolidated**

	Demand \$/therm			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
3 Base Rate	0.07415			0.31575	0.00000	0.00000	0.38990		
4 Previous Adj.	-0.00507			-0.04441	-0.00711	0.00000	-0.05659		
5 Current Adj.	0.00000			0.01503	0.00000	0.00000	0.01503		
6 Cumulative Adj.	-0.00507			-0.02938	-0.00711	0.00000	-0.04156		
7 Total GS-Residential Rate	0.06908			0.28637	-0.00711	0.00000	0.34834	0.24116	0.58950
Total GS-C&I 0-1500 therms Rate							0.34834	0.22065	0.56899
Total GS-C&I >1500 therms Rate							0.34834	0.16885	0.51719

**8 B)****SVJ & LVJ - Consolidated**

	Demand \$/therm	Demand Gas Cost Adj Factor \$/therm	Dist. Margin \$/therm	Total Billing Demand \$/therm	Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total Commodity \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
9 Base Rate	2.22450	0.00000		2.22450	0.31575	0.00000	0.00000	0.31575		
10 Previous Adj.	-0.15210	0.00013		-0.15197	-0.04441	-0.00711	0.00000	-0.05152		
11 Current Adj.	0.00000	0.00000		0.00000	0.01503	0.00000	0.00000	0.01503		
12 Cumulative Adj.	-0.15210	0.00013		-0.15197	-0.02938	-0.00711	0.00000	-0.03649		
13 Total SJ Rate	2.07240	0.00013	0.25000	2.32253	0.28637	-0.00711	0.00000	0.27926	0.09740	0.37666
14 Total LJ Rate	2.07240	0.00013	0.25000	2.32253				0.27926	0.05329	0.33255

**15 C)****SVI & LVI - Consolidated**

			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
16 Base Rate			0.31575	0.00000	0.00000	0.31575		
17 Previous Adj.			-0.04441	-0.00378	0.00000	-0.04819		
18 Current Adj.			0.01503	0.00000	0.00000	0.01503		
19 Cumulative Adj.			-0.02938	-0.00378	0.00000	-0.03316		
20 Total SVI Rate			0.28637	-0.00378	0.00000	0.28259	0.09740	0.37999
21 Total LVI Rate						0.28259	0.05329	0.33588

**MERC-Consolidated**

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**1 7. SUMMARY OF COST OF GAS RECOVERY RATES EFFECTIVE**

**August 1, 2018**

**2 A)**

**GS-Consolidated**

	Demand \$/therm			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
3 Base Rate	0.07415			0.31575	0.00000	0.00000	0.38990		
4 Previous Adj.	-0.00507			-0.02938	-0.00711	0.00000	-0.04156		
5 Current Adj.	0.00000			0.01037	0.00000	0.00000	0.01037		
6 Cumulative Adj.	-0.00507			-0.01901	-0.00711	0.00000	-0.03119		
7 Total GS-Residential Rate	0.06908			0.29674	-0.00711	0.00000	0.35871	0.24116	0.59987
Total GS-C&I 0-1500 therms Rate							0.35871	0.22065	0.57936
Total GS-C&I >1500 therms Rate							0.35871	0.16885	0.52756

**8 B)**

**SVJ & LVJ - Consolidated**

	Demand \$/therm	Demand Gas Cost Adj Factor \$/therm	Dist. Margin \$/therm	Total Billing Demand \$/therm	Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total Commodity \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
9 Base Rate	2.22450	0.00000		2.22450	0.31575	0.00000	0.00000	0.31575		
10 Previous Adj.	-0.15210	0.00013		-0.15197	-0.02938	-0.00711	0.00000	-0.03649		
11 Current Adj.	0.00000	0.00000		0.00000	0.01037	0.00000	0.00000	0.01037		
12 Cumulative Adj.	-0.15210	0.00013		-0.15197	-0.01901	-0.00711	0.00000	-0.02612		
13 Total SJ Rate	2.07240	0.00013	0.25000	2.32253	0.29674	-0.00711	0.00000	0.28963	0.09740	0.38703
14 Total LJ Rate	2.07240	0.00013	0.25000	2.32253				0.28963	0.05329	0.34292

**15 C)**

**SVI & LVI - Consolidated**

			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
16 Base Rate			0.31575	0.00000	0.00000	0.31575		
17 Previous Adj.			-0.02938	-0.00378	0.00000	-0.03316		
18 Current Adj.			0.01037	0.00000	0.00000	0.01037		
19 Cumulative Adj.			-0.01901	-0.00378	0.00000	-0.02279		
20 Total SVI Rate			0.29674	-0.00378	0.00000	0.29296	0.09740	0.39036
21 Total LVI Rate						0.29296	0.05329	0.34625

**MERC-Consolidated**

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1 **7. SUMMARY OF COST OF GAS RECOVERY RATES EFFECTIVE**

**September 1, 2018**

2 **A)**

**GS-Consolidated**

	Demand \$/therm			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
3 Base Rate	0.07415			0.31575	0.00000	0.00000	0.38990		
4 Previous Adj.	-0.00507			-0.01901	-0.00711	0.00000	-0.03119		
5 Current Adj.	0.00000			0.00516	0.02764	0.00000	0.03280		
6 Cumulative Adj.	-0.00507			-0.01385	0.02053	0.00000	0.00161		
7 Total GS-Residential Rate	0.06908			0.30190	0.02053	0.00000	0.39151	0.24116	0.63267
Total GS-C&I 0-1500 therms Rate							0.39151	0.22065	0.61216
Total GS-C&I >1500 therms Rate							0.39151	0.16885	0.56036

8 **B)**

**SVJ & LVJ - Consolidated**

	Demand \$/therm	Demand Gas Cost Adj Factor \$/therm	Dist. Margin \$/therm	Total Billing Demand \$/therm	Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total Commodity \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
9 Base Rate	2.22450	0.00000		2.22450	0.31575	0.00000	0.00000	0.31575		
10 Previous Adj.	-0.15210	0.00013		-0.15197	-0.01901	-0.00711	0.00000	-0.02612		
11 Current Adj.	0.00000	-0.00014		-0.00014	0.00516	0.02764	0.00000	0.03280		
12 Cumulative Adj.	-0.15210	-0.00001		-0.15211	-0.01385	0.02053	0.00000	0.00668		
13 Total SJ Rate	2.07240	-0.00001	0.25000	2.32239	0.30190	0.02053	0.00000	0.32243	0.09740	0.41983
14 Total LJ Rate	2.07240	-0.00001	0.25000	2.32239				0.32243	0.05329	0.37572

15 **C)**

**SVI & LVI - Consolidated**

			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
16 Base Rate			0.31575	0.00000	0.00000	0.31575		
17 Previous Adj.			-0.01901	-0.00378	0.00000	-0.02279		
18 Current Adj.			0.00516	0.03414	0.00000	0.03930		
19 Cumulative Adj.			-0.01385	0.03036	0.00000	0.01651		
20 Total SVI Rate			0.30190	0.03036	0.00000	0.33226	0.09740	0.42966
21 Total LVI Rate						0.33226	0.05329	0.38555

**MERC-Consolidated**

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1 **7. SUMMARY OF COST OF GAS RECOVERY RATES EFFECTIVE**

October 1, 2018

2 **A)**

**GS-Consolidated**

	Demand \$/therm			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
3 Base Rate	0.07415			0.31575	0.00000	0.00000	0.38990		
4 Previous Adj.	-0.00507			-0.01385	0.02053	0.00000	0.00161		
5 Current Adj.	0.00000			0.00332	0.00000	0.00000	0.00332		
6 Cumulative Adj.	-0.00507			-0.01053	0.02053	0.00000	0.00493		
7 Total GS-Residential Rate	0.06908			0.30522	0.02053	0.00000	0.39483	0.24116	0.63599
Total GS-C&I 0-1500 therms Rate							0.39483	0.22065	0.61548
Total GS-C&I >1500 therms Rate							0.39483	0.16885	0.56368

8 **B)**

**SVJ & LVJ - Consolidated**

	Demand \$/therm	Demand Gas Cost Adj Factor \$/therm	Dist. Margin \$/therm	Total Billing Demand \$/therm	Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total Commodity \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
9 Base Rate	2.22450	0.00000		2.22450	0.31575	0.00000	0.00000	0.31575		
10 Previous Adj.	-0.15210	-0.00001		-0.15211	-0.01385	0.02053	0.00000	0.00668		
11 Current Adj.	0.00000	0.00000		0.00000	0.00332	0.00000	0.00000	0.00332		
12 Cumulative Adj.	-0.15210	-0.00001		-0.15211	-0.01053	0.02053	0.00000	0.01000		
13 Total SJ Rate	2.07240	-0.00001	0.25000	2.32239	0.30522	0.02053	0.00000	0.32575	0.09740	0.42315
14 Total LJ Rate	2.07240	-0.00001	0.25000	2.32239				0.32575	0.05329	0.37904

15 **C)**

**SVI & LVI - Consolidated**

			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
16 Base Rate			0.31575	0.00000	0.00000	0.31575		
17 Previous Adj.			-0.01385	0.03036	0.00000	0.01651		
18 Current Adj.			0.00332	0.00000	0.00000	0.00332		
19 Cumulative Adj.			-0.01053	0.03036	0.00000	0.01983		
20 Total SVI Rate			0.30522	0.03036	0.00000	0.33558	0.09740	0.43298
21 Total LVI Rate						0.33558	0.05329	0.38887

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## 7. SUMMARY OF COST OF GAS RECOVERY RATES EFFECTIVE

November 1, 2018

### A)

#### GS-Consolidated

	Demand \$/therm			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
3 Base Rate	0.07415			0.31575	0.00000	0.00000	0.38990		
4 Previous Adj.	-0.00507			-0.01053	0.02053	0.00000	0.00493		
5 Current Adj.	0.01321			0.01038	0.00000	0.00000	0.02359		
6 Cumulative Adj.	0.00814			-0.00015	0.02053	0.00000	0.02852		
7 Total GS-Residential Rate	0.08229			0.31560	0.02053	0.00000	0.41842	0.24116	0.65958
Total GS-C&I 0-1500 therms Rate							0.41842	0.22065	0.63907
Total GS-C&I >1500 therms Rate							0.41842	0.16885	0.58727

### B)

#### SVJ & LVJ - Consolidated

	Demand \$/therm	Demand Gas Cost Adj Factor \$/therm	Dist. Margin \$/therm	Total Billing Demand \$/therm	Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total Commodity \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
9 Base Rate	2.22450	0.00000		2.22450	0.31575	0.00000	0.00000	0.31575		
10 Previous Adj.	-0.15210	-0.00001		-0.15211	-0.01053	0.02053	0.00000	0.01000		
11 Current Adj.	0.39630	0.00000		0.39630	0.01038	0.00000	0.00000	0.01038		
12 Cumulative Adj.	0.24420	-0.00001		0.24419	-0.00015	0.02053	0.00000	0.02038		
13 Total SJ Rate	2.46870	-0.00001	0.25000	2.71869	0.31560	0.02053	0.00000	0.33613	0.09740	0.43353
14 Total LJ Rate	2.46870	-0.00001	0.25000	2.71869				0.33613	0.05329	0.38942

### C)

#### SVI & LVI - Consolidated

			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
16 Base Rate			0.31575	0.00000	0.00000	0.31575		
17 Previous Adj.			-0.01053	0.03036	0.00000	0.01983		
18 Current Adj.			0.01038	0.00000	0.00000	0.01038		
19 Cumulative Adj.			-0.00015	0.03036	0.00000	0.03021		
20 Total SVI Rate			0.31560	0.03036	0.00000	0.34596	0.09740	0.44336
21 Total LVI Rate						0.34596	0.05329	0.39925



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**7. SUMMARY OF COST OF GAS RECOVERY RATES EFFECTIVE**

**December 1, 2018**

**A)**

**GS-Consolidated**

	Demand \$/therm			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
3 Base Rate	0.07415			0.31575	0.00000	0.00000	0.38990		
4 Previous Adj.	0.00814			-0.00015	0.02053	0.00000	0.02852		
5 Current Adj.	0.00000			0.09726	0.00000	0.00000	0.09726		
6 Cumulative Adj.	0.00814			0.09711	0.02053	0.00000	0.12578		
7 Total GS-Residential Rate	0.08229			0.41286	0.02053	0.00000	0.51568	0.24116	0.75684
Total GS-C&I 0-1500 therms Rate							0.51568	0.22065	0.73633
Total GS-C&I >1500 therms Rate							0.51568	0.16885	0.68453

**B)**

**SVJ & LVJ - Consolidated**

	Demand \$/therm	Demand Gas Cost Adj Factor \$/therm	Dist. Margin \$/therm	Total Billing Demand \$/therm	Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total Commodity \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
9 Base Rate	2.22450	0.00000		2.22450	0.31575	0.00000	0.00000	0.31575		
10 Previous Adj.	0.24420	-0.00001		0.24419	-0.00015	0.02053	0.00000	0.02038		
11 Current Adj.	0.00000	0.00000		0.00000	0.09726	0.00000	0.00000	0.09726		
12 Cumulative Adj.	0.24420	-0.00001		0.24419	0.09711	0.02053	0.00000	0.11764		
13 Total SJ Rate	2.46870	-0.00001	0.25000	2.71869	0.41286	0.02053	0.00000	0.43339	0.09740	0.53079
14 Total LJ Rate	2.46870	-0.00001	0.25000	2.71869				0.43339	0.05329	0.48668

**C)**

**SVI & LVI - Consolidated**

			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
16 Base Rate			0.31575	0.00000	0.00000	0.31575		
17 Previous Adj.			-0.00015	0.03036	0.00000	0.03021		
18 Current Adj.			0.09726	0.00000	0.00000	0.09726		
19 Cumulative Adj.			0.09711	0.03036	0.00000	0.12747		
20 Total SVI Rate			0.41286	0.03036	0.00000	0.44322	0.09740	0.54062
21 Total LVI Rate						0.44322	0.05329	0.49651

## MERC-Consolidated

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## 1 7. SUMMARY OF COST OF GAS RECOVERY RATES EFFECTIVE

January 1, 2019

## 2 A)

## GS-Consolidated

	Demand \$/therm			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
3 Base Rate	0.07415			0.31575	0.00000	0.00000	0.38990		
4 Previous Adj.	0.00814			0.09711	0.02053	0.00000	0.12578		
5 Current Adj.	0.00000			-0.05616	0.00000	0.00000	-0.05616		
6 Cumulative Adj.	0.00814			0.04095	0.02053	0.00000	0.06962		
7 Total GS-Residential Rate	0.08229			0.35670	0.02053	0.00000	0.45952	0.24116	0.70068
Total GS-C&I 0-1500 therms Rate							0.45952	0.22065	0.68017
Total GS-C&I >1500 therms Rate							0.45952	0.16885	0.62837

## 8 B)

## SVJ &amp; LVJ - Consolidated

	Demand \$/therm	Demand Gas Cost Adj Factor \$/therm	Dist. Margin \$/therm	Total Billing Demand \$/therm	Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total Commodity \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
9 Base Rate	2.22450	0.00000		2.22450	0.31575	0.00000	0.00000	0.31575		
10 Previous Adj.	0.24420	-0.00001		0.24419	0.09711	0.02053	0.00000	0.11764		
11 Current Adj.	0.00000	0.00000		0.00000	-0.05616	0.00000	0.00000	-0.05616		
12 Cumulative Adj.	0.24420	-0.00001		0.24419	0.04095	0.02053	0.00000	0.06148		
13 Total SJ Rate	2.46870	-0.00001	0.25000	2.71869	0.35670	0.02053	0.00000	0.37723	0.09740	0.47463
14 Total LJ Rate	2.46870	-0.00001	0.25000	2.71869				0.37723	0.05329	0.43052

## 15 C)

## SVI &amp; LVI - Consolidated

			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
16 Base Rate			0.31575	0.00000	0.00000	0.31575		
17 Previous Adj.			0.09711	0.03036	0.00000	0.12747		
18 Current Adj.			-0.05616	0.00000	0.00000	-0.05616		
19 Cumulative Adj.			0.04095	0.03036	0.00000	0.07131		
20 Total SVI Rate			0.35670	0.03036	0.00000	0.38706	0.09740	0.48446
21 Total LVI Rate						0.38706	0.05329	0.44035

**MERC-Consolidated**

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1 **7. SUMMARY OF COST OF GAS RECOVERY RATES EFFECTIVE**

February 1, 2019

2 **A)**

**GS-Consolidated**

	Demand \$/therm			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
3 Base Rate	0.07415			0.31575	0.00000	0.00000	0.38990		
4 Previous Adj.	0.00814			0.04095	0.02053	0.00000	0.06962		
5 Current Adj.	0.00000			-0.04869	0.00000	0.00000	-0.04869		
6 Cumulative Adj.	0.00814			-0.00774	0.02053	0.00000	0.02093		
7 Total GS-Residential Rate	0.08229			0.30801	0.02053	0.00000	0.41083	0.24116	0.65199
Total GS-C&I 0-1500 therms Rate							0.41083	0.22065	0.63148
Total GS-C&I >1500 therms Rate							0.41083	0.16885	0.57968

8 **B)**

**SVJ & LVJ - Consolidated**

	Demand \$/therm	Demand Gas Cost Adj Factor \$/therm	Dist. Margin \$/therm	Total Billing Demand \$/therm	Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total Commodity \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
9 Base Rate	2.22450	0.00000		2.22450	0.31575	0.00000	0.00000	0.31575		
10 Previous Adj.	0.24420	-0.00001		0.24419	0.04095	0.02053	0.00000	0.06148		
11 Current Adj.	0.00000	0.00000		0.00000	-0.04869	0.00000	0.00000	-0.04869		
12 Cumulative Adj.	0.24420	-0.00001		0.24419	-0.00774	0.02053	0.00000	0.01279		
13 Total SJ Rate	2.46870	-0.00001	0.25000	2.71869	0.30801	0.02053	0.00000	0.32854	0.09740	0.42594
14 Total LJ Rate	2.46870	-0.00001	0.25000	2.71869				0.32854	0.05329	0.38183

15 **C)**

**SVI & LVI - Consolidated**

			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
16 Base Rate			0.31575	0.00000	0.00000	0.31575		
17 Previous Adj.			0.04095	0.03036	0.00000	0.07131		
18 Current Adj.			-0.04869	0.00000	0.00000	-0.04869		
19 Cumulative Adj.			-0.00774	0.03036	0.00000	0.02262		
20 Total SVI Rate			0.30801	0.03036	0.00000	0.33837	0.09740	0.43577
21 Total LVI Rate						0.33837	0.05329	0.39166

**MERC-Consolidated**

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**7. SUMMARY OF COST OF GAS RECOVERY RATES EFFECTIVE**

**March 1, 2019**

**A)**

**GS-Consolidated**

	Demand \$/therm			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
3 Base Rate	0.07415			0.31575	0.00000	0.00000	0.38990		
4 Previous Adj.	0.00814			-0.00774	0.02053	0.00000	0.02093		
5 Current Adj.	0.00000			-0.01184	0.00000	0.00000	-0.01184		
6 Cumulative Adj.	0.00814			-0.01958	0.02053	0.00000	0.00909		
7 Total GS-Residential Rate	0.08229			0.29617	0.02053	0.00000	0.39899	0.24116	0.64015
Total GS-C&I 0-1500 therms Rate							0.39899	0.22065	0.61964
Total GS-C&I >1500 therms Rate							0.39899	0.16885	0.56784

**B)**

**SVJ & LVJ - Consolidated**

	Demand \$/therm	Demand Gas Cost Adj Factor \$/therm	Dist. Margin \$/therm	Total Billing Demand \$/therm	Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total Commodity \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
9 Base Rate	2.22450	0.00000		2.22450	0.31575	0.00000	0.00000	0.31575		
10 Previous Adj.	0.24420	-0.00001		0.24419	-0.00774	0.02053	0.00000	0.01279		
11 Current Adj.	0.00000	0.00000		0.00000	-0.01184	0.00000	0.00000	-0.01184		
12 Cumulative Adj.	0.24420	-0.00001		0.24419	-0.01958	0.02053	0.00000	0.00095		
13 Total SJ Rate	2.46870	-0.00001	0.25000	2.71869	0.29617	0.02053	0.00000	0.31670	0.09740	0.41410
14 Total LJ Rate	2.46870	-0.00001	0.25000	2.71869				0.31670	0.05329	0.36999

**C)**

**SVI & LVI - Consolidated**

			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
16 Base Rate			0.31575	0.00000	0.00000	0.31575		
17 Previous Adj.			-0.00774	0.03036	0.00000	0.02262		
18 Current Adj.			-0.01184	0.00000	0.00000	-0.01184		
19 Cumulative Adj.			-0.01958	0.03036	0.00000	0.01078		
20 Total SVI Rate			0.29617	0.03036	0.00000	0.32653	0.09740	0.42393
21 Total LVI Rate						0.32653	0.05329	0.37982

**MERC-Consolidated**

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**7. SUMMARY OF COST OF GAS RECOVERY RATES EFFECTIVE**

**April 1, 2019**

**A)**

**GS-Consolidated**

	Demand \$/therm			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
3 Base Rate	0.07415			0.31575	0.00000	0.00000	0.38990		
4 Previous Adj.	0.00814			-0.01958	0.02053	0.00000	0.00909		
5 Current Adj.	0.00000			-0.03156	0.00000	0.00000	-0.03156		
6 Cumulative Adj.	0.00814			-0.05114	0.02053	0.00000	-0.02247		
7 Total GS-Residential Rate	0.08229			0.26461	0.02053	0.00000	0.36743	0.24116	0.60859
Total GS-C&I 0-1500 therms Rate							0.36743	0.22065	0.58808
Total GS-C&I >1500 therms Rate							0.36743	0.16885	0.53628

**B)**

**SVJ & LVJ - Consolidated**

	Demand \$/therm	Demand Gas Cost Adj Factor \$/therm	Dist. Margin \$/therm	Total Billing Demand \$/therm	Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total Commodity \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
9 Base Rate	2.22450	0.00000		2.22450	0.31575	0.00000	0.00000	0.31575		
10 Previous Adj.	0.24420	-0.00001		0.24419	-0.01958	0.02053	0.00000	0.00095		
11 Current Adj.	0.00000	0.00000		0.00000	-0.03156	0.00000	0.00000	-0.03156		
12 Cumulative Adj.	0.24420	-0.00001		0.24419	-0.05114	0.02053	0.00000	-0.03061		
13 Total SJ Rate	2.46870	-0.00001	0.25000	2.71869	0.26461	0.02053	0.00000	0.28514	0.09740	0.38254
14 Total LJ Rate	2.46870	-0.00001	0.25000	2.71869				0.28514	0.05329	0.33843

**C)**

**SVI & LVI - Consolidated**

			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
16 Base Rate			0.31575	0.00000	0.00000	0.31575		
17 Previous Adj.			-0.01958	0.03036	0.00000	0.01078		
18 Current Adj.			-0.03156	0.00000	0.00000	-0.03156		
19 Cumulative Adj.			-0.05114	0.03036	0.00000	-0.02078		
20 Total SVI Rate			0.26461	0.03036	0.00000	0.29497	0.09740	0.39237
21 Total LVI Rate						0.29497	0.05329	0.34826

**MERC-Consolidated**

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1 **7. SUMMARY OF COST OF GAS RECOVERY RATES EFFECTIVE**

May 1, 2019

2 **A)**

**GS-Consolidated**

	Demand \$/therm			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
3 Base Rate	0.07415			0.31575	0.00000	0.00000	0.38990		
4 Previous Adj.	0.00814			-0.05114	0.02053	0.00000	-0.02247		
5 Current Adj.	0.00000			-0.01884	0.00000	0.00000	-0.01884		
6 Cumulative Adj.	0.00814			-0.06998	0.02053	0.00000	-0.04131		
7 Total GS-Residential Rate	0.08229			0.24577	0.02053	0.00000	0.34859	0.24116	0.58975
Total GS-C&I 0-1500 therms Rate							0.34859	0.22065	0.56924
Total GS-C&I >1500 therms Rate							0.34859	0.16885	0.51744

8 **B)**

**SVJ & LVJ - Consolidated**

	Demand \$/therm	Demand Gas Cost Adj Factor \$/therm	Dist. Margin \$/therm	Total Billing Demand \$/therm	Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total Commodity \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
9 Base Rate	2.22450	0.00000		2.22450	0.31575	0.00000	0.00000	0.31575		
10 Previous Adj.	0.24420	-0.00001		0.24419	-0.05114	0.02053	0.00000	-0.03061		
11 Current Adj.	0.00000	0.00000		0.00000	-0.01884	0.00000	0.00000	-0.01884		
12 Cumulative Adj.	0.24420	-0.00001		0.24419	-0.06998	0.02053	0.00000	-0.04945		
13 Total SJ Rate	2.46870	-0.00001	0.25000	2.71869	0.24577	0.02053	0.00000	0.26630	0.09740	0.36370
14 Total LJ Rate	2.46870	-0.00001	0.25000	2.71869				0.26630	0.05329	0.31959

15 **C)**

**SVI & LVI - Consolidated**

			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
16 Base Rate			0.31575	0.00000	0.00000	0.31575		
17 Previous Adj.			-0.05114	0.03036	0.00000	-0.02078		
18 Current Adj.			-0.01884	0.00000	0.00000	-0.01884		
19 Cumulative Adj.			-0.06998	0.03036	0.00000	-0.03962		
20 Total SVI Rate			0.24577	0.03036	0.00000	0.27613	0.09740	0.37353
21 Total LVI Rate						0.27613	0.05329	0.32942

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## 1 7. SUMMARY OF COST OF GAS RECOVERY RATES EFFECTIVE

June 1, 2019

### 2 A)

#### GS-Consolidated

	Demand \$/therm			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
3 Base Rate	0.07415			0.31575	0.00000	0.00000	0.38990		
4 Previous Adj.	0.00814			-0.06998	0.02053	0.00000	-0.04131		
5 Current Adj.	0.00000			0.00181	0.00000	0.00000	0.00181		
6 Cumulative Adj.	0.00814			-0.06817	0.02053	0.00000	-0.03950		
7 Total GS-Residential Rate	0.08229			0.24758	0.02053	0.00000	0.35040	0.24116	0.59156
Total GS-C&I 0-1500 therms Rate							0.35040	0.22065	0.57105
Total GS-C&I >1500 therms Rate							0.35040	0.16885	0.51925

### 8 B)

#### SVJ & LVJ - Consolidated

	Demand \$/therm	Demand Gas Cost Adj Factor \$/therm	Dist. Margin \$/therm	Total Billing Demand \$/therm	Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total Commodity \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
9 Base Rate	2.22450	0.00000		2.22450	0.31575	0.00000	0.00000	0.31575		
10 Previous Adj.	0.24420	-0.00001		0.24419	-0.06998	0.02053	0.00000	-0.04945		
11 Current Adj.	0.00000	0.00000		0.00000	0.00181	0.00000	0.00000	0.00181		
12 Cumulative Adj.	0.24420	-0.00001		0.24419	-0.06817	0.02053	0.00000	-0.04764		
13 Total SJ Rate	2.46870	-0.00001	0.25000	2.71869	0.24758	0.02053	0.00000	0.26811	0.09740	0.36551
14 Total LJ Rate	2.46870	-0.00001	0.25000	2.71869				0.26811	0.05329	0.32140

### 15 C)

#### SVI & LVI - Consolidated

			Commodity \$/therm	Gas Cost Adj. Factor \$/therm	CIP Factor \$/therm	Total \$/therm	Dist. Margin \$/therm	Total Billing Rate \$/therm
16 Base Rate			0.31575	0.00000	0.00000	0.31575		
17 Previous Adj.			-0.06998	0.03036	0.00000	-0.03962		
18 Current Adj.			0.00181	0.00000	0.00000	0.00181		
19 Cumulative Adj.			-0.06817	0.03036	0.00000	-0.03781		
20 Total SVI Rate			0.24758	0.03036	0.00000	0.27794	0.09740	0.37534
21 Total LVI Rate						0.27794	0.05329	0.33123

## MINNESOTA ENERGY RESOURCES - Consolidated

12 MONTHS ENDED JUNE 2019  
SUMMARY OF PURCHASED VOLUMES AND COSTS

### Schedule C and D

Page 1 of 1  
8/22/2019

	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
VGT													
Dth	24,399	26,848	57,622	145,235	191,927	243,423	286,185	224,739	211,359	143,149	82,899	29,131	1,666,916
Demand \$	\$ 41,643	\$ 33,808	\$ 63,343	\$ 63,343	\$ 53,767	\$ 74,698	\$ 74,698	\$ 74,698	\$ 60,863	\$ 54,171	\$ 48,471	\$ 46,567	\$690,071
Total Dem \$	\$ 41,643	\$ 33,808	\$ 63,343	\$ 63,343	\$ 53,767	\$ 74,698	\$ 74,698	\$ 74,698	\$ 60,863	\$ 54,171	\$ 48,471	\$ 46,567	\$690,071
Commodity \$	\$ 70,352	\$ 80,773	\$ 165,100	\$ 427,706	\$ 678,015	\$ 1,044,286	\$ 1,050,600	\$ 695,309	\$ 626,634	\$ 361,379	\$ 199,170	\$ 75,130	\$5,474,454
Total Com \$	\$ 70,352	\$ 80,773	\$ 165,100	\$ 427,706	\$ 678,015	\$ 1,044,286	\$ 1,050,600	\$ 695,309	\$ 626,634	\$ 361,379	\$ 199,170	\$ 75,130	\$5,474,454
Total \$	\$ 111,995	\$ 114,581	\$ 228,443	\$ 491,049	\$ 731,783	\$ 1,118,984	\$ 1,125,297	\$ 770,007	\$ 687,497	\$ 415,550	\$ 247,641	\$ 121,698	\$6,164,525
GLGT													
Dth*	46,641	44,643	54,718	222,466	250,580	402,304	350,009	457,296	378,864	224,354	132,834	44,696	2,609,407
Demand \$	\$ 38,480	\$ 35,168	\$ 46,103	\$ 50,003	\$ 118,845	\$ 124,965	\$ 128,440	\$ 127,525	\$ 131,656	\$ 47,330	\$ 42,205	\$ 40,876	\$931,592
Total Dem \$	\$ 38,480	\$ 35,168	\$ 46,103	\$ 50,003	\$ 118,845	\$ 124,965	\$ 128,440	\$ 127,525	\$ 131,656	\$ 47,330	\$ 42,205	\$ 40,876	\$931,592
Commodity \$	\$ 114,627	\$ 110,798	\$ 149,077	\$ 649,541	\$ 769,543	\$ 1,793,097	\$ 1,159,256	\$ 1,242,675	\$ 1,148,032	\$ 516,009	\$ 295,177	\$ 97,265	\$8,045,097
Total Com \$	\$ 114,627	\$ 110,798	\$ 149,077	\$ 649,541	\$ 769,543	\$ 1,793,097	\$ 1,159,256	\$ 1,242,675	\$ 1,148,032	\$ 516,009	\$ 295,177	\$ 97,265	\$8,045,097
Total \$	\$ 153,107	\$ 145,965	\$ 195,179	\$ 699,543	\$ 888,388	\$ 1,918,062	\$ 1,287,696	\$ 1,370,201	\$ 1,279,687	\$ 563,339	\$ 337,382	\$ 138,140	\$8,976,689
CENTRA													
Dth	21,444	24,275	40,776	105,165	160,269	181,718	232,733	203,137	158,299	92,329	56,988	24,759	1,301,892
Dem \$	\$ 131,154	\$ 130,349	\$ 134,003	\$ 130,203	\$ 132,949	\$ 134,734	\$ 135,216	\$ 134,809	\$ 134,793	\$ 133,885	\$ 135,088	\$ 137,339	\$1,604,523
Com \$	\$79,857	\$92,515	\$141,099	\$338,935	\$593,834	\$822,225	\$869,775	\$641,143	\$529,841	\$274,851	\$163,136	\$80,718	\$4,627,929
Total \$	\$211,011	\$222,865	\$275,101	\$469,138	\$726,783	\$956,959	\$1,004,991	\$775,952	\$664,634	\$408,736	\$298,224	\$218,057	\$6,232,452
AECO													
Dth	558	564	658	582	196,182	63,070	281,683	154,429	58,781	0	0	0	756,507
Dem \$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0
Com \$	\$47,655	\$47,679	\$48,236	\$47,773	\$615,381	\$237,104	\$858,358	\$496,728	\$224,915	\$31,654	\$31,654	\$31,654	\$2,718,791
Total \$	\$47,655	\$47,679	\$48,236	\$47,773	\$615,381	\$237,104	\$858,358	\$496,728	\$224,915	\$31,654	\$31,654	\$31,654	\$2,718,791
Subtotal													
Dth	93,042	96,331	153,775	473,448	798,958	890,515	1,150,609	1,039,602	807,303	459,833	272,721	98,586	6,334,722
Dem \$	\$ 211,277	\$199,325	\$243,448	\$243,549	\$305,561	\$334,397	\$338,354	\$337,032	\$327,312	\$235,386	\$225,764	\$224,782	\$3,226,186
Com \$	\$ 312,491	\$331,765	\$503,512	\$1,463,954	\$2,656,774	\$3,896,712	\$3,937,989	\$3,075,856	\$2,529,422	\$1,183,893	\$689,137	\$284,767	\$2

Due to rounding and other considerations, the total amounts reported may not aggregate in total for the month and/or year.



# MINNESOTA ENERGY RESOURCES - Consolidated

12 MONTHS ENDED JUNE 2019  
PURCHASES ASSIGNMENT AND ALLOCATION BY CLASS

Schedule D1

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	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
<b>DEMAND</b>													
GS	\$210,075	\$198,123	\$242,246	\$242,347	\$304,129	\$332,965	\$334,493	\$335,600	\$325,880	\$233,954	\$224,333	\$223,350	\$3,207,495
SVJ	\$1,202	\$1,202	\$1,202	\$1,202	\$1,432	\$1,432	\$1,432	\$1,432	\$1,432	\$1,432	\$1,432	\$1,432	\$16,263
<b>Total</b>	<b>\$211,277</b>	<b>\$199,325</b>	<b>\$243,448</b>	<b>\$243,549</b>	<b>\$305,561</b>	<b>\$334,397</b>	<b>\$335,925</b>	<b>\$337,032</b>	<b>\$327,312</b>	<b>\$235,386</b>	<b>\$225,764</b>	<b>\$224,782</b>	<b>\$3,223,757</b>
<b>COMMODITY</b>													
GS	\$260,359	\$273,179	\$438,065	\$1,273,450	\$2,347,660	\$3,518,058	\$3,555,386	\$2,784,144	\$2,291,449	\$1,062,567	\$614,709	\$248,313	\$18,667,341
SVI /LVI	\$ 51,859	\$ 57,740	\$ 63,072	\$ 177,783	\$ 302,771	\$ 369,745	\$ 372,117	\$ 283,862	\$ 231,689	\$ 118,531	\$ 72,914	\$ 36,169	\$2,138,253
SVJ	\$273	\$845	\$2,374	\$12,721	\$6,344	\$8,910	\$10,485	\$7,849	\$6,283	\$2,795	\$1,513	\$286	\$60,678
<b>Total</b>	<b>\$ 312,491</b>	<b>\$331,765</b>	<b>\$503,512</b>	<b>\$1,463,954</b>	<b>\$2,656,774</b>	<b>\$3,896,712</b>	<b>\$3,937,989</b>	<b>\$3,075,856</b>	<b>\$2,529,422</b>	<b>\$1,183,893</b>	<b>\$689,137</b>	<b>\$284,767</b>	<b>\$20,866,271</b>
<b>BY CLASS</b>													
GS - Dem	\$210,075	\$198,123	\$242,246	\$242,347	\$304,129	\$332,965	\$334,493	\$335,600	\$325,880	\$233,954	\$224,333	\$223,350	\$3,207,495
GS - Comm	\$260,359	\$273,179	\$438,065	\$1,273,450	\$2,347,660	\$3,518,058	\$3,555,386	\$2,784,144	\$2,291,449	\$1,062,567	\$614,709	\$248,313	\$18,667,341
<b>Total GS</b>	<b>\$470,434</b>	<b>\$471,302</b>	<b>\$680,311</b>	<b>\$1,515,797</b>	<b>\$2,651,789</b>	<b>\$3,851,023</b>	<b>\$3,889,879</b>	<b>\$3,119,745</b>	<b>\$2,617,330</b>	<b>\$1,296,521</b>	<b>\$839,042</b>	<b>\$471,663</b>	<b>\$21,874,835</b>
<b>Total SVI/LVI</b>	<b>\$51,859</b>	<b>\$57,740</b>	<b>\$63,072</b>	<b>\$177,783</b>	<b>\$302,771</b>	<b>\$369,745</b>	<b>\$372,117</b>	<b>\$283,862</b>	<b>\$231,689</b>	<b>\$118,531</b>	<b>\$72,914</b>	<b>\$36,169</b>	<b>\$2,138,253</b>
SVJ - Dem	\$1,202	\$1,202	\$1,202	\$1,202	\$1,432	\$1,432	\$1,432	\$1,432	\$1,432	\$1,432	\$1,432	\$1,432	\$16,263
SVJ - Comm	\$273	\$845	\$2,374	\$12,721	\$6,344	\$8,910	\$10,485	\$7,849	\$6,283	\$2,795	\$1,513	\$286	\$60,678
<b>Total SVJ</b>	<b>\$1,475</b>	<b>\$2,047</b>	<b>\$3,576</b>	<b>\$13,923</b>	<b>\$7,776</b>	<b>\$10,342</b>	<b>\$11,917</b>	<b>\$9,281</b>	<b>\$7,715</b>	<b>\$4,227</b>	<b>\$2,945</b>	<b>\$1,717</b>	<b>\$76,940</b>
<b>TOTAL</b>	<b>\$523,768</b>	<b>\$531,090</b>	<b>\$746,960</b>	<b>\$1,707,503</b>	<b>\$2,962,335</b>	<b>\$4,231,109</b>	<b>\$4,273,913</b>	<b>\$3,412,888</b>	<b>\$2,856,734</b>	<b>\$1,419,279</b>	<b>\$914,901</b>	<b>\$509,549</b>	<b>\$24,090,028</b>

(1) GS/IS Commodity is allocated by sales volumes.

Due to rounding and other considerations, the total amounts reported may not aggregate in total for the month and/or year.

# MINNESOTA ENERGY RESOURCES - Consolidated

12 MONTHS ENDED JUNE 2019  
GAS RECOVERY AND PURCHASES COMPARISON

Schedule D2

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8/22/2019

	Jul-18			Aug-18			Sep-18		
	Sales	Purchases	(Over) Under	Sales	Purchases	(Over) Under	Sales	Purchases	(Over) Under
GS - Dem	\$51,479	\$210,075	\$158,596	54,846	\$198,123	\$143,277	110,532	\$242,246	\$131,714
GS - Comm	<u>\$215,504</u>	<u>\$260,359</u>	<u>\$44,855</u>	<u>237,854</u>	<u>\$273,179</u>	<u>\$35,325</u>	<u>485,578</u>	<u>\$438,065</u>	<u>(\$47,513)</u>
Total GS	<u>\$266,983</u>	<u>\$470,434</u>	<u>\$203,451</u>	<u>292,700</u>	<u>\$471,302</u>	<u>\$178,602</u>	<u>596,110</u>	<u>\$680,311</u>	<u>\$84,201</u>
SVI/LVI	\$42,925	<u>\$51,859</u>	<u>\$8,934</u>	<u>50,274</u>	<u>\$57,740</u>	<u>\$7,466</u>	<u>69,913</u>	<u>\$63,072</u>	<u>(\$6,841)</u>
SVJ - Dem	\$1,202	\$1,202	\$0	1,202	\$1,202	\$0	1,202	\$1,202	\$0
SVJ - Comm	<u>\$223</u>	<u>\$273</u>	<u>\$49</u>	<u>729</u>	<u>\$845</u>	<u>\$116</u>	<u>2,618</u>	<u>\$2,374</u>	<u>(\$244)</u>
Total SVJ	<u>\$1,425</u>	<u>\$1,475</u>	<u>\$49</u>	<u>1,931</u>	<u>\$2,047</u>	<u>\$116</u>	<u>3,820</u>	<u>\$3,576</u>	<u>(\$244)</u>
TOTAL	<u>\$311,333</u>	<u>\$523,768</u>	<u>\$212,435</u>	<u>344,905</u>	<u>\$531,090</u>	<u>\$186,185</u>	<u>669,843</u>	<u>\$746,960</u>	<u>\$77,116</u>

	Oct-18			Nov-18			Dec-18		
	Sales	Purchases	(Over) Under	Sales	Purchases	(Over) Under	Sales	Purchases	(Over) Under
GS - Dem	288,937	\$242,347	(\$46,590)	551,213	\$304,129	(\$247,084)	664,118	\$332,965	(\$331,153)
GS - Comm	<u>1,280,990</u>	<u>\$1,273,450</u>	<u>(\$7,540)</u>	<u>2,119,943</u>	<u>\$2,347,660</u>	<u>\$227,717</u>	<u>3,337,926</u>	<u>\$3,518,058</u>	<u>\$180,132</u>
Total GS	<u>1,569,927</u>	<u>\$1,515,797</u>	<u>(\$54,130)</u>	<u>2,671,156</u>	<u>\$2,651,789</u>	<u>(\$19,367)</u>	<u>4,002,044</u>	<u>\$3,851,023</u>	<u>(\$151,021)</u>
SVI/LVI	<u>178,836</u>	<u>\$177,783</u>	<u>(\$1,053)</u>	<u>273,403</u>	<u>\$302,771</u>	<u>\$29,368</u>	<u>350,813</u>	<u>\$369,745</u>	<u>\$18,932</u>
SVJ - Dem	1,202	\$1,202	\$0	1,432	\$1,432	\$0	1,432	\$1,432	\$0
SVJ - Comm	<u>12,753</u>	<u>\$12,721</u>	<u>(\$32)</u>	<u>5,712</u>	<u>\$6,344</u>	<u>\$631</u>	<u>8,438</u>	<u>\$8,910</u>	<u>\$471</u>
Total SVJ	<u>13,955</u>	<u>\$13,923</u>	<u>(\$32)</u>	<u>7,144</u>	<u>\$7,776</u>	<u>\$631</u>	<u>9,870</u>	<u>\$10,342</u>	<u>\$471</u>
TOTAL	<u>1,762,718</u>	<u>\$1,707,503</u>	<u>(\$55,215)</u>	<u>2,951,703</u>	<u>\$2,962,335</u>	<u>\$10,632</u>	<u>4,362,727</u>	<u>\$4,231,109</u>	<u>(\$131,618)</u>

2017 Subtotal		
Sales	Purchases	(Over) Under
\$1,721,126	\$1,529,885	(\$191,241)
<u>\$7,677,795</u>	<u>\$8,110,772</u>	<u>\$432,977</u>
<u>\$9,398,920</u>	<u>\$9,640,656</u>	<u>\$241,736</u>
<u>\$966,163</u>	<u>\$1,022,970</u>	<u>\$56,807</u>
\$7,672	\$7,672	\$0
<u>\$30,474</u>	<u>\$31,466</u>	<u>\$992</u>
<u>\$38,146</u>	<u>\$39,138</u>	<u>\$992</u>
<u>\$10,403,229</u>	<u>\$10,702,764</u>	<u>\$299,535</u>

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# MINNESOTA ENERGY RESOURCES - Consolidated

12 MONTHS ENDED JUNE 2019  
GAS RECOVERY AND PURCHASES COMPARISON

Schedule D2

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	Jan-19			Feb-19			Mar-19			2018 Subtotal		
	Sales	Purchases	(Over) Under	Sales	Purchases	(Over) Under	Sales	Purchases	(Over) Under	Sales	Purchases	(Over) Under
GS - Dem	\$836,693	\$334,493	(\$502,200)	\$782,412	\$335,600	(\$446,812)	\$623,898	\$325,880	(\$298,018)	\$2,886,170	\$1,677,610	(\$1,208,560)
GS - Comm	\$3,634,246	\$3,555,386	(\$78,860)	\$2,935,230	\$2,784,144	(\$151,085)	\$2,251,255	\$2,291,449	\$40,194	\$10,835,516	\$10,556,569	(\$278,947)
Total GS	<u>\$4,470,938</u>	<u>\$3,889,879</u>	<u>(\$581,060)</u>	<u>\$3,717,642</u>	<u>\$3,119,745</u>	<u>(\$597,897)</u>	<u>\$2,875,153</u>	<u>\$2,617,330</u>	<u>(\$257,823)</u>	<u>\$13,721,685</u>	<u>\$12,234,179</u>	<u>(\$1,487,507)</u>
SVI/LVI	<u>\$380,371</u>	<u>\$372,117</u>	<u>(\$8,254)</u>	<u>\$299,267</u>	<u>\$283,862</u>	<u>(\$15,404)</u>	<u>\$227,625</u>	<u>\$231,689</u>	<u>\$4,064</u>	<u>\$1,144,290</u>	<u>\$1,115,283</u>	<u>(\$29,007)</u>
SVJ - Dem	\$1,432	\$1,432	\$0	\$1,432	\$1,432	\$0	\$1,432	\$1,432	\$0	\$8,591	\$8,591	\$0
SVJ - Comm	<u>\$10,696</u>	<u>\$10,485</u>	<u>(\$211)</u>	<u>\$8,256</u>	<u>\$7,849</u>	<u>(\$407)</u>	<u>\$6,157</u>	<u>\$6,283</u>	<u>\$126</u>	<u>\$29,940</u>	<u>\$29,211</u>	<u>(\$729)</u>
Total SVJ	<u>\$12,128</u>	<u>\$11,917</u>	<u>(\$211)</u>	<u>\$9,688</u>	<u>\$9,281</u>	<u>(\$407)</u>	<u>\$7,589</u>	<u>\$7,715</u>	<u>\$126</u>	<u>\$38,531</u>	<u>\$37,802</u>	<u>(\$729)</u>
TOTAL	<u>\$4,863,437</u>	<u>\$4,273,913</u>	<u>(\$589,524)</u>	<u>\$4,026,597</u>	<u>\$3,412,888</u>	<u>(\$613,709)</u>	<u>\$3,110,367</u>	<u>\$2,856,734</u>	<u>(\$253,633)</u>	<u>\$14,904,507</u>	<u>\$13,387,264</u>	<u>(\$1,517,243)</u>

	Apr-19			May-19			Jun-19			TOTAL		
	Sales	Purchases	(Over) Under	Sales	Purchases	(Over) Under	Sales	Purchases	(Over) Under	Sales	Purchases	(Over) Under
GS - Dem	\$360,390	\$233,954	(\$126,436)	\$206,631	\$224,333	\$17,702	\$76,146	\$223,350	\$147,204	\$4,607,295	\$3,207,495	(\$1,399,801)
GS - Comm	<u>\$1,162,991</u>	<u>\$1,062,567</u>	<u>(\$100,424)</u>	<u>\$620,383</u>	<u>\$614,709</u>	<u>(\$5,674)</u>	<u>\$231,411</u>	<u>\$248,313</u>	<u>\$16,902</u>	<u>\$18,513,311</u>	<u>\$18,667,341</u>	<u>\$154,030</u>
Total GS	<u>\$1,523,381</u>	<u>\$1,296,521</u>	<u>(\$226,860)</u>	<u>\$827,014</u>	<u>\$839,042</u>	<u>\$12,028</u>	<u>\$307,557</u>	<u>\$471,663</u>	<u>\$164,106</u>	<u>\$23,120,606</u>	<u>\$21,874,835</u>	<u>(\$1,245,771)</u>
SVI/LVI	<u>\$129,733</u>	<u>\$118,531</u>	<u>(\$11,202)</u>	<u>\$73,587</u>	<u>\$72,914</u>	<u>(\$673)</u>	<u>\$33,707</u>	<u>\$36,169</u>	<u>\$2,462</u>	<u>\$2,110,453</u>	<u>\$2,138,253</u>	<u>\$27,800</u>
SVJ - Dem	\$1,432	\$1,432	\$0	\$1,432	\$1,432	\$0	\$1,432	\$1,432	\$0	\$16,263	\$16,263	\$0
SVJ - Comm	<u>\$3,048</u>	<u>\$2,795</u>	<u>(\$253)</u>	<u>\$1,519</u>	<u>\$1,513</u>	<u>(\$6)</u>	<u>\$263</u>	<u>\$286</u>	<u>\$22</u>	<u>\$60,414</u>	<u>\$60,678</u>	<u>\$264</u>
Total SVJ	<u>\$4,480</u>	<u>\$4,227</u>	<u>(\$253)</u>	<u>\$2,951</u>	<u>\$2,945</u>	<u>(\$6)</u>	<u>\$1,695</u>	<u>\$1,717</u>	<u>\$22</u>	<u>\$76,677</u>	<u>\$76,940</u>	<u>\$264</u>
TOTAL	<u>\$1,657,595</u>	<u>\$1,419,279</u>	<u>(\$238,316)</u>	<u>\$903,552</u>	<u>\$914,901</u>	<u>\$11,349</u>	<u>\$342,959</u>	<u>\$509,549</u>	<u>\$166,590</u>	<u>\$25,307,736</u>	<u>\$24,090,028</u>	<u>(\$1,217,707)</u>

Due to rounding and other considerations, the total amounts reported may not aggregate in total for the month and/or year.

## MINNESOTA ENERGY RESOURCES - Consolidated

Schedule D3

12 MONTHS ENDED JUNE 2019

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RECOVERY BY TYPE, BY MONTH, BY CLASS

8/22/2019

GS RECOVERY

RECOVERY	Jul-18		Aug-18		Sep-18		Oct-18		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19		Total Annual
	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	
GS																									0
VGT FT-A Zone 1 - 1 (Annual)	0.1570	11,700	0.1570	12,465	0.1570	25,121	0.1570	65,668	0.1571	105,232	0.1571	126,787	0.1571	159,733	0.1571	149,371	0.1571	119,108	0.1571	68,802	0.1571	39,448	0.1571	14,537	897,972
VGT FT-A Zone 1 - 1 (Winter)	0.0030	224	0.0030	238	0.0030	480	0.0030	1,255	0.0030	2,010	0.0030	2,421	0.0030	3,050	0.0030	2,852	0.0030	2,275	0.0030	1,314	0.0030	753	0.0030	278	17,149
VGT FT-A Zone 1 - 1 (Annual)	0.0041	306	0.0041	326	0.0041	656	0.0041	1,715	0.0041	2,746	0.0041	3,309	0.0041	4,169	0.0041	3,898	0.0041	3,108	0.0041	1,796	0.0041	1,030	0.0041	379	23,437
VGT FT-A Zone 1 - 1 (Nov-Mar)	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0
GLGT FT Western (10,130)	0.0706	5,261	0.0706	5,605	0.0706	11,296	0.0706	29,529	0.0412	27,598	0.0412	33,250	0.0412	41,891	0.0412	39,173	0.0412	31,237	0.0412	18,044	0.0412	10,345	0.0412	3,812	257,042
GLGT FT Western (5) (15,030)	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0947	63,434	0.0947	76,427	0.0947	96,287	0.0947	90,041	0.0947	71,799	0.0947	41,474	0.0947	23,779	0.0947	8,763	472,004
GLGT FT Western (12,600)	0.0878	6,543	0.0878	6,971	0.0878	14,049	0.0878	36,724	0.0878	58,812	0.0878	70,859	0.0878	89,272	0.0878	83,480	0.0878	66,567	0.0878	38,452	0.0878	22,047	0.0878	8,124	501,899
GLGT FT Western (5) (3,728)	0.0108	805	0.0108	857	0.0108	1,728	0.0108	4,517	0.0108	7,234	0.0108	8,716	0.0108	10,981	0.0108	10,269	0.0108	8,188	0.0108	4,730	0.0108	2,712	0.0108	999	61,737
GLGT FT Storage to Farwell	0.0142	1,058	0.0142	1,127	0.0142	2,272	0.0142	5,939	0.0141	9,445	0.0141	11,379	0.0141	14,336	0.0141	13,406	0.0141	10,690	0.0141	6,175	0.0141	3,541	0.0141	1,305	80,674
Centra Conversion	0.2656	19,793	0.2656	21,087	0.2656	42,498	0.2656	111,091	0.3324	222,656	0.3324	268,262	0.3324	337,971	0.3324	316,046	0.3324	252,016	0.3324	145,575	0.3324	83,466	0.3324	30,758	1,851,218
Centra MN Pipelines	0.0777	5,790	0.0777	6,169	0.0777	12,432	0.0777	32,499	0.0777	52,047	0.0777	62,707	0.0777	79,002	0.0777	73,877	0.0777	58,910	0.0777	34,029	0.0777	19,511	0.0777	7,190	444,163
AECO	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0
Total Demand	0.6908	51,478	0.6908	54,846	0.6908	110,532	0.6908	288,937	0.8229	551,213	0.8229	664,118	0.8229	836,693	0.8229	782,412	0.8229	623,898	0.8229	360,390	0.8229	206,631	0.8229	76,146	4,607,295
COMM GAS COST	2.86370	215,504	2.96740	237,854	3.01900	485,578	3.05220	1,280,990	3.15600	2,119,943	4.12860	3,337,926	3.56700	3,634,246	3.08010	2,935,230	2.96170	2,251,255	2.64610	1,162,991	2.45770	620,383	2.47580	231,411	18,513,311
Total Commodity		215,504		237,854		485,578		1,280,990		2,119,943		3,337,926		3,634,246		2,935,230		2,251,255		1,162,991		620,383		231,411	18,513,311
Total Recovery		266,993		292,700		596,110		1,569,927		2,671,158		4,002,044		4,470,938		3,717,642		2,876,153		1,523,381		827,014		307,557	23,120,606

## MINNESOTA ENERGY RESOURCES - Consolidated

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12 MONTHS ENDED JUNE 2019  
RECOVERY BY TYPE, BY MONTH, BY CLASS  
IS & TOTAL RECOVERY

## RECOVERY

	Jul-18		Aug-18		Sep-18		Oct-18		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19		Total Annual
	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	
<b>SVI</b>																									
COMM GAS COST	2.86370	42,925	2.96740	50,274	3.01900	69,913	3.05220	178,836	3.15600	273,403	4.12860	350,813	3.56700	380,371	3.08010	299,267	2.96170	227,625	2.64610	129,733	2.45770	73,587	2.47580	33,707	2,110,453
<b>Total Recovery</b>	<b>2.86370</b>	<b>42,925</b>	<b>2.96740</b>	<b>50,274</b>		<b>69,913</b>		<b>178,836</b>		<b>273,403</b>		<b>350,813</b>		<b>380,371</b>		<b>299,267</b>		<b>227,625</b>		<b>129,733</b>		<b>73,587</b>		<b>33,707</b>	<b>2,110,453</b>
<b>SVJ - COMM</b>																									
COMM GAS COST	2.86370	223	2.96740	729	3.01900	2,618	3.05220	12,753	3.15600	5,712	4.12860	8,438	3.56700	10,696	3.08010	8,256	2.96170	6,157	2.64610	3,048	2.45770	1,519	2.47580	263	60,414
<b>Total Recovery</b>	<b>2.86370</b>	<b>223</b>	<b>2.96740</b>	<b>729</b>		<b>2,618</b>		<b>12,753</b>		<b>5,712</b>		<b>8,438</b>		<b>10,696</b>		<b>8,256</b>		<b>6,157</b>		<b>3,048</b>		<b>1,519</b>		<b>263</b>	<b>60,414</b>
<b>SVJ - DEM</b>																									0
VGT FT-A Zone 1 - 1 (Annual)	4.7100	273	4.7100	273	4.7100	273	4.7100	273	4.7130	273	4.7130	273	4.7130	273	4.7130	273	4.7130	273	4.7130	273	4.7130	273	4.7130	273	3,280
VGT FT-A Zone 1 - 1 (Winter)	0.0900	5	0.0900	5	0.0900	5	0.0900	5	0.0900	5	0.0900	5	0.0900	5	0.0900	5	0.0900	5	0.0900	5	0.0900	5	0.0900	5	63
VGT FT-A Zone 1 - 1 (Annual)	0.1230	7	0.1230	7	0.1230	7	0.1230	7	0.1230	7	0.1230	7	0.1230	7	0.1230	7	0.1230	7	0.1230	7	0.1230	7	0.1230	7	86
VGT FT-A Zone 1 - 1 (Nov-Mar)	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0
GLGT FT Western (10,130)	2.1180	123	2.1180	123	2.1180	123	2.1180	123	2.1360	72	2.1360	72	2.1360	72	2.1360	72	2.1360	72	2.1360	72	2.1360	72	2.1360	72	1,065
GLGT FT Western (5) (15,030)	0.0000	0	0.0000	0	0.0000	0	0.0000	0	2.8410	165	2.8410	165	2.8410	165	2.8410	165	2.8410	165	2.8410	165	2.8410	165	2.8410	165	1,318
GLGT FT Western (12,600)	2.6340	153	2.6340	153	2.6340	153	2.6340	153	2.6340	153	2.6340	153	2.6340	153	2.6340	153	2.6340	153	2.6340	153	2.6340	153	2.6340	153	1,833
GLGT FT Western (5) (3,728)	0.3240	19	0.3240	19	0.3240	19	0.3240	19	0.3240	19	0.3240	19	0.3240	19	0.3240	19	0.3240	19	0.3240	19	0.3240	19	0.3240	19	226
GLGT FT Storage to Farwell	0.4260	25	0.4260	25	0.4260	25	0.4260	25	0.4230	25	0.4230	25	0.4230	25	0.4230	25	0.4230	25	0.4230	25	0.4230	25	0.4230	25	295
Centra Conversion	7.9680	462	7.9680	462	7.9680	462	7.9680	462	9.9720	578	9.9720	578	9.9720	578	9.9720	578	9.9720	578	9.9720	578	9.9720	578	9.9720	578	6,476
Centra MN Pipelines	2.3310	135	2.3310	135	2.3310	135	2.3310	135	2.3310	135	2.3310	135	2.3310	135	2.3310	135	2.3310	135	2.3310	135	2.3310	135	2.3310	135	1,622
AECO	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0
<b>Total Demand</b>	<b>20.7240</b>	<b>1,202</b>	<b>20.7240</b>	<b>1,202</b>	<b>20.7240</b>	<b>1,202</b>	<b>20.7240</b>	<b>1,202</b>	<b>24.6870</b>	<b>1,432</b>	<b>24.6870</b>	<b>1,432</b>	<b>24.6870</b>	<b>1,432</b>	<b>24.6870</b>	<b>1,432</b>	<b>24.6870</b>	<b>1,432</b>	<b>24.6870</b>	<b>1,432</b>	<b>24.6870</b>	<b>1,432</b>	<b>24.6870</b>	<b>1,432</b>	<b>16,263</b>
<b>TOTAL</b>																									
VGT FT-A Zone 1 - 1 (Annual)	11,973		12,738		25,394		65,941		105,506		127,060		160,006		149,644		119,382		69,075		39,721		14,810		901,251
VGT FT-A Zone 1 - 1 (Winter)	229		243		485		1,260		2,015		2,426		3,056		2,858		2,280		1,319		759		283		17,212
VGT FT-A Zone 1 - 1 (Annual)	313		333		663		1,722		2,753		3,316		4,176		3,905		3,116		1,803		1,037		387		23,523
VGT FT-A Zone 1 - 1 (Nov-Mar)	0		0		0		0		0		0		0		0		0		0		0		0		0
GLGT FT Western (10,130)	5,384		5,728		11,419		29,652		27,669		33,322		41,962		39,245		31,308		18,115		10,417		3,884		258,106
GLGT FT Western (5) (15,030)	0		0		0		0		63,599		76,592		96,452		90,205		71,963		41,639		23,944		8,928		473,322
GLGT FT Western (12,600)	6,696		7,124		14,201		36,876		58,965		71,011		89,424		83,633		66,720		38,605		22,199		8,277		503,732
GLGT FT Western (5) (3,728)	824		876		1,747		4,536		7,253		8,735		11,000		10,287		8,207		4,749		2,731		1,018		61,963
GLGT FT Storage to Farwell	1,083		1,152		2,297		5,964		9,469		11,404		14,361		13,431		10,715		6,200		3,565		1,329		80,969
Centra Conversion	20,255		21,549		42,960		111,553		223,234		268,940		338,550		316,624		252,594		146,153		84,044		31,337		1,857,693
Centra MN Pipelines	5,925		6,304		12,568		32,634		52,182		62,843		79,138		74,012		59,045		34,164		19,646		7,325		445,786
AECO	0		0		0		0		0		0		0		0		0		0		0		0		0
<b>Total Demand</b>	<b>52,681</b>		<b>56,048</b>		<b>111,734</b>		<b>290,139</b>		<b>552,645</b>		<b>665,850</b>		<b>838,124</b>		<b>783,844</b>		<b>625,330</b>		<b>361,822</b>		<b>208,063</b>		<b>77,578</b>		<b>4,623,558</b>
COMM GAS COST	259,652		288,857		558,109		1,472,579		2,399,058		3,697,177		4,025,313		3,242,753		2,485,037		1,285,773		695,480		265,381		20,684,178
<b>Total Commodity</b>	<b>259,652</b>		<b>288,857</b>		<b>558,109</b>		<b>1,472,579</b>		<b>2,399,058</b>		<b>3,697,177</b>		<b>4,025,313</b>		<b>3,242,753</b>		<b>2,485,037</b>		<b>1,285,773</b>		<b>695,480</b>		<b>265,381</b>		<b>20,684,178</b>
<b>Total Recovery \$</b>	<b>311,333</b>		<b>344,905</b>		<b>669,843</b>		<b>1,762,718</b>		<b>2,951,703</b>		<b>4,362,727</b>		<b>4,863,437</b>		<b>4,026,597</b>		<b>3,110,367</b>		<b>1,657,595</b>		<b>903,552</b>		<b>342,959</b>		<b>25,307,736</b>

Due to rounding and other considerations, the total amounts reported may not aggregate in total for the month and/or year.

\*Per Commission Decision in Docket No. G011/GR-15-748 the calculation of the rate charged to DFC was changed beginning Mar. 1, 2017.

## MINNESOTA ENERGY RESOURCES - Consolidated

12 MONTHS ENDED JUNE 2019  
COSTS BY TYPE, BY MONTH, BY CLASS  
GS & LGS COSTS

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## COSTS

	Jul-18		Aug-18		Sep-18		Oct-18		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19		Total Annual
	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	
<b>GS</b>																									
VGT FT-A Zone 1 - 1 (Annual)	22.73%	\$58,386	22.73%	\$58,184	22.73%	\$59,074	22.73%	\$58,215	19.09%	\$63,438	19.09%	\$65,962	19.09%	\$65,593	19.09%	\$65,804	19.09%	\$63,635	19.09%	\$49,302	19.09%	\$49,517	19.09%	\$49,943	707,053
VGT FT-A Zone 1 - 1 (Winter)	0.43%	\$1,116	0.43%	\$1,112	0.43%	\$1,129	0.43%	\$1,112	0.36%	\$1,211	0.36%	\$1,260	0.36%	\$1,253	0.36%	\$1,257	0.36%	\$1,215	0.36%	\$941	0.36%	\$946	0.36%	\$954	13,505
VGT FT-A Zone 1 - 1 (Annual)	0.59%	\$1,525	0.59%	\$1,519	0.59%	\$1,543	0.59%	\$1,520	0.50%	\$1,656	0.50%	\$1,721	0.50%	\$1,712	0.50%	\$1,717	0.50%	\$1,661	0.50%	\$1,287	0.50%	\$1,292	0.50%	\$1,303	18,457
VGT FT-A Zone 1 - 1 (Nov-Mar)	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0
GLGT FT Western (10,130)	10.22%	\$26,255	10.22%	\$26,164	10.22%	\$26,565	10.22%	\$26,178	5.01%	\$16,637	5.01%	\$17,299	5.01%	\$17,202	5.01%	\$17,257	5.01%	\$16,688	5.01%	\$12,930	5.01%	\$12,986	5.01%	\$13,098	229,259
GLGT FT Western (5) (15,030)	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	11.51%	\$38,241	11.51%	\$39,762	11.51%	\$39,539	11.51%	\$39,667	11.51%	\$38,359	11.51%	\$29,719	11.51%	\$29,849	11.51%	\$30,106	285,241
GLGT FT Western (12,600)	12.71%	\$32,652	12.71%	\$32,539	12.71%	\$33,037	12.71%	\$32,556	10.67%	\$35,454	10.67%	\$36,865	10.67%	\$36,658	10.67%	\$36,777	10.67%	\$35,564	10.67%	\$27,554	10.67%	\$27,674	10.67%	\$27,912	395,241
GLGT FT Western (5) (3,728)	1.56%	\$4,016	1.56%	\$4,002	1.56%	\$4,064	1.56%	\$4,005	1.31%	\$4,361	1.31%	\$4,535	1.31%	\$4,509	1.31%	\$4,524	1.31%	\$4,375	1.31%	\$3,389	1.31%	\$3,404	1.31%	\$3,433	48,617
GLGT FT Storage to Farwell	2.06%	\$5,281	2.06%	\$5,263	2.06%	\$5,343	2.06%	\$5,265	1.71%	\$5,694	1.71%	\$5,920	1.71%	\$5,887	1.71%	\$5,906	1.71%	\$5,711	1.71%	\$4,425	1.71%	\$4,444	1.71%	\$4,482	63,622
Centra Conversion	38.45%	\$98,773	38.45%	\$98,431	38.45%	\$99,937	38.45%	\$98,484	40.39%	\$134,225	40.39%	\$139,565	40.39%	\$138,784	40.39%	\$139,232	40.39%	\$134,641	40.39%	\$104,315	40.39%	\$104,771	40.39%	\$105,671	1,396,831
Centra MN Pipelines	11.25%	\$28,896	11.25%	\$28,796	11.25%	\$29,236	11.25%	\$28,811	9.44%	\$31,376	9.44%	\$32,624	9.44%	\$32,441	9.44%	\$32,546	9.44%	\$31,473	9.44%	\$24,384	9.44%	\$24,491	9.44%	\$24,701	349,775
AECO	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0
CAPACITY REL.		(\$46,824)		(\$57,888)		(\$17,681)		(\$13,800)		(\$28,163)		(\$12,546)		(\$9,086)		(\$9,086)		(\$7,442)		(\$24,292)		(\$35,042)		(\$38,253)	(\$30,104)
<b>Total Demand</b>	<b>100.00%</b>	<b>\$210,075</b>	<b>100.00%</b>	<b>\$198,123</b>	<b>100.00%</b>	<b>\$242,246</b>	<b>100.00%</b>	<b>\$242,347</b>	<b>100.00%</b>	<b>\$304,129</b>	<b>100.00%</b>	<b>\$332,965</b>	<b>100.00%</b>	<b>\$334,493</b>	<b>100.00%</b>	<b>\$335,600</b>	<b>100.00%</b>	<b>\$325,880</b>	<b>100.00%</b>	<b>\$233,954</b>	<b>100.00%</b>	<b>\$224,333</b>	<b>100.00%</b>	<b>\$223,350</b>	<b>3,207,495</b>
		\$210,075		\$198,123		\$242,246		\$242,347		\$304,129		\$332,965		\$334,493		\$335,600		\$325,880		\$233,954		\$224,333		\$223,350	3,207,495
																									0
																									0
COMM GAS COST		\$260,359		\$273,179		\$438,065		\$1,273,450		\$2,347,660		\$3,518,058		\$3,555,386		\$2,784,144		\$2,291,449		\$1,062,567		\$614,709		\$248,313	18,667,341
Total Commodity		\$260,359		\$273,179		\$438,065		\$1,273,450		\$2,347,660		\$3,518,058		\$3,555,386		\$2,784,144		\$2,291,449		\$1,062,567		\$614,709		\$248,313	18,667,341
Total Costs		\$470,434		\$471,302		\$680,311		\$1,515,797		\$2,651,789		\$3,851,023		\$3,889,879		\$3,119,745		\$2,617,330		\$1,296,521		\$839,042		\$471,663	21,874,835

## MINNESOTA ENERGY RESOURCES - Consolidated

12 MONTHS ENDED JUNE 2019  
COSTS BY TYPE, BY MONTH, BY CLASS  
IS & TOTAL COSTS

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## COSTS

	Jul-18		Aug-18		Sep-18		Oct-18		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19		Total	
	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	factors	\$	Annual	
SVI																										
COMM GAS COST		\$51,859		\$57,740		\$63,072		\$177,783		\$302,771		\$369,745		\$372,117		\$283,862		\$231,689		\$118,531		\$72,914		\$36,169		2,138,253
Total Commodity		\$51,859		\$57,740		\$63,072		\$177,783		\$302,771		\$369,745		\$372,117		\$283,862		\$231,689		\$118,531		\$72,914		\$36,169		2,138,253
SVJ - COMM																										
COMM GAS COST		\$273		\$845		\$2,374		\$12,721		\$6,344		\$8,910		\$10,485		\$7,849		\$6,283		\$2,795		\$1,513		\$286		60,678
Total Commodity		\$273		\$845		\$2,374		\$12,721		\$6,344		\$8,910		\$10,485		\$7,849		\$6,283		\$2,795		\$1,513		\$286		60,678
SVJ - DEM																										
VGT FT-A Zone 1 - 1 (Annual)	22.73%	\$334.07	22.73%	\$353	22.73%	\$293	22.73%	\$289	19.09%	\$299	19.09%	\$284	19.09%	\$281	19.09%	\$281	19.09%	\$280	19.09%	\$302	19.09%	\$316	19.09%	\$320		3,630
VGT FT-A Zone 1 - 1 (Winter)	0.43%	\$6.38	0.43%	\$7	0.43%	\$6	0.43%	\$6	0.36%	\$6	0.36%	\$5	0.36%	\$5	0.36%	\$5	0.36%	\$5	0.36%	\$6	0.36%	\$6	0.36%	\$6		69
VGT FT-A Zone 1 - 1 (Annual)	0.59%	\$8.72	0.59%	\$9	0.59%	\$8	0.59%	\$8	0.50%	\$8	0.50%	\$7	0.50%	\$7	0.50%	\$7	0.50%	\$7	0.50%	\$8	0.50%	\$8	0.50%	\$8		95
VGT FT-A Zone 1 - 1 (Nov-Mar)	0.00%	\$0.00	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0		0
GLGT FT Western (10,130)	10.22%	\$150	10.22%	\$159	10.22%	\$132	10.22%	\$130	5.01%	\$78	5.01%	\$74	5.01%	\$74	5.01%	\$74	5.01%	\$73	5.01%	\$79	5.01%	\$83	5.01%	\$84		1,190
GLGT FT Western (5) (15,030)	0.00%	\$0.00	0.00%	\$0	0.00%	\$0	0.00%	\$0	11.51%	\$180	11.51%	\$171	11.51%	\$169	11.51%	\$169	11.51%	\$169	11.51%	\$182	11.51%	\$191	11.51%	\$193		1,423
GLGT FT Western (12,600)	12.71%	\$186.82	12.71%	\$197	12.71%	\$164	12.71%	\$161	10.67%	\$167	10.67%	\$159	10.67%	\$157	10.67%	\$157	10.67%	\$156	10.67%	\$169	10.67%	\$177	10.67%	\$179		2,029
GLGT FT Western (5) (3,728)	1.56%	\$22.98	1.56%	\$24	1.56%	\$20	1.56%	\$20	1.31%	\$21	1.31%	\$20	1.31%	\$19	1.31%	\$19	1.31%	\$19	1.31%	\$21	1.31%	\$22	1.31%	\$22		250
GLGT FT Storage to Farwell	2.06%	\$30.22	2.06%	\$32	2.06%	\$27	2.06%	\$26	1.71%	\$27	1.71%	\$25	1.71%	\$25	1.71%	\$25	1.71%	\$25	1.71%	\$27	1.71%	\$28	1.71%	\$29		327
Centra Conversion	38.45%	\$665.15	38.45%	\$697	38.45%	\$496	38.45%	\$488	40.39%	\$632	40.39%	\$600	40.39%	\$594	40.39%	\$594	40.39%	\$592	40.39%	\$638	40.39%	\$669	40.39%	\$677		7,143
Centra MN Pipelines	11.25%	\$165.33	11.25%	\$175	11.25%	\$145	11.25%	\$143	9.44%	\$148	9.44%	\$140	9.44%	\$139	9.44%	\$139	9.44%	\$138	9.44%	\$149	9.44%	\$156	9.44%	\$158		1,796
AECO	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0		0
CAPACITY REL.		(\$268)		(\$351)		(\$88)		(\$68)		(\$133)		(\$54)		(\$39)		(\$39)		(\$33)		(\$149)		(\$224)		(\$245)		(1,690)
Total Demand	100.00%	\$1,202	100.00%	\$1,202	100.00%	\$1,202	100.00%	\$1,202	100.00%	\$1,432	100.00%	\$1,432	100.00%	\$1,432	100.00%	\$1,432	100.00%	\$1,432	100.00%	\$1,432	100.00%	\$1,432	100.00%	\$1,432		16,263
TOTAL																										
VGT FT-A Zone 1 - 1 (Annual)		\$58,720		\$58,537		\$59,368		\$58,504		\$63,737		\$66,245		\$65,873		\$66,085		\$63,914		\$49,604		\$49,833		\$50,263		710,683
VGT FT-A Zone 1 - 1 (Winter)		\$1,122		\$1,119		\$1,134		\$1,118		\$1,217		\$1,265		\$1,258		\$1,262		\$1,221		\$947		\$952		\$960		13,574
VGT FT-A Zone 1 - 1 (Annual)		\$1,533		\$1,529		\$1,550		\$1,528		\$1,663		\$1,729		\$1,719		\$1,725		\$1,668		\$1,295		\$1,301		\$1,312		18,551
VGT FT-A Zone 1 - 1 (Nov-Mar)		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		0
GLGT FT Western (10,130)		\$26,405		\$26,323		\$26,696		\$26,308		\$16,715		\$17,373		\$17,276		\$17,331		\$16,762		\$13,009		\$13,069		\$13,182		230,449
GLGT FT Western (5) (15,030)		\$0		\$0		\$0		\$0		\$38,421		\$39,933		\$39,709		\$39,836		\$38,528		\$29,901		\$30,040		\$30,299		286,665
GLGT FT Western (12,600)		\$32,838		\$32,736		\$33,200		\$32,718		\$35,621		\$37,023		\$36,815		\$36,934		\$35,720		\$27,722		\$27,851		\$28,091		397,270
GLGT FT Western (5) (3,728)		\$4,039		\$4,027		\$4,084		\$4,024		\$4,382		\$4,554		\$4,529		\$4,543		\$4,394		\$3,410		\$3,426		\$3,455		48,867
GLGT FT Storage to Farwell		\$5,311		\$5,294		\$5,370		\$5,291		\$5,720		\$5,946		\$5,912		\$5,931		\$5,736		\$4,452		\$4,473		\$4,511		63,948
Centra Conversion		\$99,338		\$99,028		\$100,433		\$98,972		\$134,857		\$140,165		\$139,378		\$139,826		\$135,233		\$104,954		\$105,440		\$106,349		1,403,974
Centra MN Pipelines		\$29,061		\$28,970		\$29,381		\$28,954		\$31,524		\$32,764		\$32,580		\$32,685		\$31,611		\$24,533		\$24,647		\$24,860		351,570
AECO		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		0
CAPACITY REL.		(\$47,092)		(\$58,239)		(\$17,769)		(\$13,869)		(\$28,296)		(\$12,600)		(\$9,125)		(\$9,125)		(\$7,475)		(\$24,441)		(\$35,265)		(\$38,489)		(\$301,794)
Total Demand		\$211,277		\$199,325		\$243,448		\$243,549		\$305,561		\$334,397		\$335,925		\$337,032		\$327,312		\$235,386		\$225,764		\$224,782		3,223,757
COMM GAS COST																										
COMM GAS COST		\$312,491		\$331,765		\$503,512		\$1,463,954		\$2,656,774		\$3,896,712		\$3,937,989		\$3,075,856		\$2,529,422		\$1,183,893		\$689,137		\$284,767		20,866,271
Total Commodity		\$312,491		\$331,765		\$503,512		\$1,463,954		\$2,656,774		\$3,896,712		\$3,937,989		\$3,075,856		\$2,529,422		\$1,183,893		\$689,137		\$284,767		20,866,271
Total Costs		\$23,786		\$31,090		\$746,960		\$1,707,503		\$2,962,335		\$4,231,109		\$4,273,913		\$3,412,888		\$2,856,734		\$1,419,279		\$914,901		\$509,549		24,090,028

Due to rounding and other considerations, the total amounts reported may not aggregate in total for the month and/or year.

# MINNESOTA ENERGY RESOURCES - Consolidated

12 MONTHS ENDED JUNE 2019

(OVER)/UNDER BY TYPE, BY MONTH, BY CLASS  
GS & LGS (OVER)/UNDER

Schedule D3

Page 5 of 6

8/22/2019

	Recovery	Costs	(O)/U	(O)/U
<b>GS</b>	\$	\$	\$	%
VGT FT-A Zone 1 - 1 (Annual)	897,972	707,053	(190,919)	-27.00%
VGT FT-A Zone 1 - 1 (Winter)	17,149	13,505	(3,644)	
VGT FT-A Zone 1 - 1 (Annual)	23,437	18,457	(4,981)	
VGT FT-A Zone 1 - 1 (Nov-Mar)	0	0	0	
GLGT FT Western (10,130)	257,042	229,259	(27,783)	-12.12%
GLGT FT Western (5) (15,030)	472,004	285,241	(186,763)	-65.48%
GLGT FT Western (12,600)	501,899	395,241	(106,658)	-26.99%
GLGT FT Western (5) (3,728)	61,737	48,617	(13,120)	-26.99%
GLGT FT Storage to Farwell	80,674	63,622	(17,053)	
Centra Conversion	1,851,218	1,396,831	(454,387)	-32.53%
Centra MN Pipelines	444,163	349,775	(94,389)	-26.99%
AECO	0	0	0	
CAPACITY RELEASE		(300,104)	(300,104)	
<b>Total Demand</b>	<b><u>4,607,295</u></b>	<b><u>3,207,495</u></b>	<b><u>(1,399,801)</u></b>	-43.64%
COMM GAS COST	18,513,311	18,667,341	154,030	
<b>Total Commodity</b>	<b><u>18,513,311</u></b>	<b><u>18,667,341</u></b>	<b><u>154,030</u></b>	
<b>Total</b>	<b><u>23,120,606</u></b>	<b><u>21,874,835</u></b>	<b><u>(1,245,771)</u></b>	



# MINNESOTA ENERGY RESOURCES - Consolidated

12 MONTHS ENDED JUNE 2019  
(OVER)/UNDER BY TYPE, BY MONTH, BY CLASS  
IS & Total (OVER)/UNDER

Schedule D3

Page 6 of 6

8/22/2019

	Recovery	Costs	(O)/U	(O)/U
	\$	\$	\$	%
<b>SVI</b>				
COMM GAS COST	<u>2,110,453</u>	<u>2,138,253</u>	<u>27,800</u>	
<b>Total</b>	<b><u>2,110,453</u></b>	<b><u>2,138,253</u></b>	<b><u>27,800</u></b>	1.30%
<b>SVJ - COMM</b>				
COMM GAS COST	<u>60,414</u>	<u>60,678</u>	<u>264</u>	
<b>Total</b>	<b><u>60,414</u></b>	<b><u>60,678</u></b>	<b><u>264</u></b>	0.43%
<b>SVJ - DEM</b>				
VGT FT-A Zone 1 - 1 (Annual)	3,280	3,630	351	9.66%
VGT FT-A Zone 1 - 1 (Winter)	63	69	7	
VGT FT-A Zone 1 - 1 (Annual)	86	95	9	
VGT FT-A Zone 1 - 1 (Nov-Mar)	0	0	0	
GLGT FT Western (10,130)	1,065	1,190	125	
GLGT FT Western (5) (15,030)	1,318	1,423	105	
GLGT FT Western (12,600)	1,833	2,029	196	
GLGT FT Western (5) (3,728)	226	250	24	9.66%
GLGT FT Storage to Farwell	295	327	32	9.67%
Centra Conversion	6,476	7,143	667	9.34%
Centra MN Pipelines	1,622	1,796	174	9.66%
AECO	0	0	0	
CAPACITY RELEASE		<u>(1,690)</u>	<u>(1,690)</u>	
<b>Total Demand</b>	<b><u>16,263</u></b>	<b><u>16,263</u></b>	<b><u>0</u></b>	0.00%
<b>TOTAL</b>				
VGT FT-A Zone 1 - 1 (Annual)	901,251	710,683	(190,568)	-26.81%
VGT FT-A Zone 1 - 1 (Winter)	17,212	13,574	(3,638)	
VGT FT-A Zone 1 - 1 (Annual)	23,523	18,551	(4,971)	
VGT FT-A Zone 1 - 1 (Nov-Mar)	0	0	0	
GLGT FT Western (10,130)	258,106	230,449	(27,658)	-12.00%
GLGT FT Western (5) (15,030)	473,322	286,665	(186,658)	-65.11%
GLGT FT Western (12,600)	503,732	397,270	(106,462)	-26.80%
GLGT FT Western (5) (3,728)	61,963	48,867	(13,096)	-26.80%
GLGT FT Storage to Farwell	80,969	63,948	(17,021)	
Centra Conversion	1,857,693	1,403,974	(453,720)	-32.32%
Centra MN Pipelines	445,786	351,570	(94,215)	-26.80%
AECO	0	0	0	
CAPACITY RELEASE		<u>(301,794)</u>	<u>(301,794)</u>	
<b>Total Demand</b>	<b><u>4,623,558</u></b>	<b><u>3,223,757</u></b>	<b><u>(1,399,801)</u></b>	-43.42%
COMM GAS COST	<u>20,684,178</u>	<u>20,866,271</u>	<u>182,093</u>	
<b>Total Commodity</b>	<b><u>20,684,178</u></b>	<b><u>20,866,271</u></b>	<b><u>182,093</u></b>	0.87%
<b>Total</b>	<b><u>25,307,736</u></b>	<b><u>24,090,028</u></b>	<b><u>(1,217,707)</u></b>	-5.05%

Due to rounding and other considerations, the total amounts reported may not aggregate in total for the month and/or year.

**MINNESOTA ENERGY RESOURCES - Consolidated**12 MONTHS ENDED JUNE 2019  
SUMMARY OF SUPPLIER REFUNDS

Schedule F &amp; G

Page 1 of 1

8/22/2019

**F. Supplier Refunds Received**

Centra Transmission Holding Inc	\$ -
Great Lakes Transmission	\$ -
Viking Transmission	\$ (5,583.83)
Total Refunds Received	<u>\$ (5,583.83)</u>

**G. Refunds Credited to Customers by PGA System**

Total Credits to Customers	<u>\$ 0.00</u>
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Due to rounding and other considerations, the total amounts reported may not aggregate in total for the month and/or year.

**MINNESOTA ENERGY RESOURCES - Consolidated**

12 MONTHS ENDED JUNE 2019

**(OVER)/UNDER RECOVERY OF PURCHASED GAS COSTS SUMMARY****Schedule H****Page 1 of 1**

8/22/2019

<b>1. Total Rate Schedule Purchases</b> (Schedules C & D, Page 1)	\$24,090,028
<b>2. Rate Schedule Base Costs Recovered through Sales Rates</b> (Schedule A, Page 1)	<u>\$24,435,814</u>
<b>3. Difference to be Collected (Distributed) through PGA</b> (Line 1 - Line 2)	<u>(\$345,786)</u>
<b>4. Actual PGA Collected (Distributed)</b> (Schedules B & E, Page 1 - Schedule A, Page 1)	<u>\$871,921</u>
<b>5. Gas Costs Under (Over) Recovered</b> (Line 3 - Line 4)	<u>(\$1,217,707)</u>

Due to rounding and other considerations, the total amounts reported may not aggregate in total for the month and/or year.

**MINNESOTA ENERGY RESOURCES - Consolidated**

12 MONTHS ENDED JUNE 2019

Capacity Release Summary

Schedule I

Page 1 of 1

8/22/2019

Month	VGT		GLGT		Total	
	Dth	\$	Dth	\$	Dth	\$
Jul-18	310,000	\$ 21,700.00	638,600	\$ 25,391.80	948,600	\$ 47,091.80
Aug-18	372,000	\$ 29,534.98	638,600	\$ 28,703.80	1,010,600	\$ 58,238.78
Sep-18	-	\$ -	588,000	\$ 17,768.80	588,000	\$ 17,768.80
Oct-18	-	\$ -	468,100	\$ 13,868.80	468,100	\$ 13,868.80
Nov-18	210,000	\$ 9,576.00	240,000	\$ 18,720.00	450,000	\$ 28,296.00
Dec-18	-	\$ -	155,000	\$ 12,600.00	155,000	\$ 12,600.00
Jan-19	-	\$ -	62,000	\$ 9,125.00	62,000	\$ 9,125.00
Feb-19	-	\$ -	56,000	\$ 9,125.00	56,000	\$ 9,125.00
Mar-19	62,000	\$ 2,480.00	95,200	\$ 4,994.64	157,200	\$ 7,474.64
Apr-19	180,000	\$ 9,172.20	378,000	\$ 15,268.86	558,000	\$ 24,441.06
May-19	310,000	\$ 14,872.22	483,600	\$ 20,393.16	793,600	\$ 35,265.38
Jun-19	330,000	\$ 16,775.71	528,000	\$ 21,722.86	858,000	\$ 38,498.57
Total	1,774,000	\$ 104,111.11	4,331,100	\$ 197,682.72	6,105,100	\$ 301,793.83

Due to rounding and other considerations, the total amounts reported may not aggregate in total for the month and/or year.

## MERC

## Financial Hedging Report

July 1, 2018 through June 30, 2019

## I. Futures

[TRADE SECRET DATA BEGINS.]

Delivery period	Contracts	Average purchase price, \$/MMBTU	Average sale price, \$/MMBTU	Average gain (loss), \$/MMBTU	Net realized gain (loss)
Nov-18					
Dec-18					
Jan-19					
Feb-19					
Mar-19					

Futures subtotal

## II. Options

Option type	delivery period	Strike price	Contracts	Premium Paid \$	Sale Proceeds \$	Average gain (loss), \$/MMBTU	Net realized gain (loss)
Call	Nov-18						
Call	Dec-18						
Call	Jan-19						
Call	Feb-19						
Call	Mar-19						

Options subtotal

Futures and Options total

	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
Total Realized gain (loss)													
NNG Allocation													
Gain (Loss)													
Consolidated Allocation													
Gain (Loss)													
Total Realized Gain (Loss)													

...TRADE SECRET DATA ENDS]

# MINNESOTA ENERGY RESOURCES - Consolidated

12 MONTHS ENDED JUNE 2019  
CALCULATION OF PRIOR PERIOD REVENUES BILLED AFTER JUNE 30, 2018

Schedule M

Page 1 of 2

8/22/2019

CON	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Total
GS													
Dth													0
Demand													
Rate	\$0.7422	\$0.7422	\$0.7422	\$0.7422	\$0.7255	\$0.7255	\$0.7255	\$0.7255	\$0.7255	\$0.7255	\$0.7255	\$0.7255	
Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Commodity													
Rate	\$3.1645	\$2.7361	\$3.0934	\$3.2126	\$3.0133	\$3.1314	\$3.4961	\$3.2386	\$3.0389	\$2.9650	\$3.0114	\$3.0924	
Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ACA													
Rate	\$0.1468	\$0.1468	\$0.0000	-\$0.0355	-\$0.0355	-\$0.0355	-\$0.0355	-\$0.0355	-\$0.0355	-\$0.0355	-\$0.0355	-\$0.0355	
Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total \$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$ w/o ACA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
										3.655	3.7013969	3.7823969	

SVI													
Dth	-	-	-	-	-	-	-	-	-	-	-	-	0
Commodity													
Rate	\$3.1645	\$2.7361	\$3.0934	\$3.2126	\$3.0133	\$3.1314	\$3.4961	\$3.2386	\$3.0389	\$2.9650	\$3.0114	\$3.0924	
Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ACA													
Rate	\$0.7252	\$0.7252	\$0.0000	-\$0.1300	-\$0.1300	-\$0.1300	-\$0.1300	-\$0.1300	-\$0.1300	-\$0.1300	-\$0.1300	-\$0.1300	
Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total \$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$ w/o ACA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL													
Dth	0	0	0	0	0	0	0	0	0	0	0	0	0
Demand	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Commodity	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ACA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total \$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$ w/o ACA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Due to rounding and other considerations, the total amounts reported may not aggregate in total for the month and/or year.

# MINNESOTA ENERGY RESOURCES - Consolidated

12 MONTHS ENDED JUNE 2019  
CALCULATION OF PRIOR PERIOD REVENUES BILLED AFTER JUNE 30, 2018

Schedule M

Page 2 of 2  
8/22/2019

CON	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Total
GS													
Dth													0
Demand													
Rate	\$0.7255	\$0.7255	\$0.7255	\$0.7255	\$0.7377	\$0.7377	\$0.7587	\$0.7587	\$0.7587	\$0.6908	\$0.6908	\$0.6908	
Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Commodity													
Rate	\$2.9413	\$2.8650	\$2.8823	\$2.8664	\$2.6305	\$2.3315	\$2.1263	\$2.7141	\$2.6348	\$2.6008	\$2.7217	\$2.7134	
Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ACA													
Rate	-\$0.0355	-\$0.0355	-\$0.0711	-\$0.0711	-\$0.0711	-\$0.0711	-\$0.0711	-\$0.0711	-\$0.0711	-\$0.0711	-\$0.0711	-\$0.0711	
Revenue	\$0	\$0	\$0	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total \$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$ w/o ACA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	3.6313	3.555	3.5367	3.5208	3.2971	2.99810306	2.8139	3.4017	3.3224	3.2205	3.3414	3.3331	

SVI													
Dth	-	-	-	-	-	-	-	-	-	-	-	-	0
Commodity													
Rate	\$2.9413	\$2.8650	\$2.8823	\$2.8664	\$2.6305	\$2.3315	\$2.1263	\$2.7141	\$2.6348	\$2.6008	\$2.7217	\$2.7134	
Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ACA													
Rate	-\$0.1300	-\$0.1300	-\$0.0378	-\$0.0378	-\$0.0378	-\$0.0378	-\$0.0378	-\$0.0378	-\$0.0378	-\$0.0378	-\$0.0378	-\$0.0378	
Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total \$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$ w/o ACA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL													
Dth	0	0	0	0	0	0	0	0	0	0	0	0	0
Demand	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Commodity	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ACA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total \$	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$ w/o ACA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Due to rounding and other considerations, the total amounts reported may not aggregate in total for the month and/or year.

**PGAC Hedging Rate Comparison: MERC NNG**

**Schedule O**

	<b><i>No Hedge</i></b>	<b><i>Hedge Plan</i></b>	<b><i>50% Futures</i></b>	<b><i>50% Options</i></b>
Jul-18	\$ 6.7300	\$ 6.7300	\$ 6.7300	\$ 6.7300
Aug-18	\$ 6.7018	\$ 6.7018	\$ 6.7018	\$ 6.7018
Sep-18	\$ 6.7509	\$ 6.7509	\$ 6.7509	\$ 6.7509
Oct-18	\$ 6.9881	\$ 6.9881	\$ 6.9881	\$ 6.9881
Nov-18	\$ 7.5943	\$ 7.5387	\$ 7.4275	\$ 7.5387
Dec-18	\$ 8.9465	\$ 8.2744	\$ 7.3269	\$ 8.0760
Jan-19	\$ 8.0738	\$ 7.9876	\$ 7.4970	\$ 8.1468
Feb-19	\$ 7.3854	\$ 7.4456	\$ 7.5031	\$ 7.4770
Mar-19	\$ 7.1092	\$ 7.1541	\$ 7.1860	\$ 7.1830
Apr-19	\$ 7.1848	\$ 7.1848	\$ 7.1848	\$ 7.1848
May-19	\$ 6.7408	\$ 6.7408	\$ 6.7408	\$ 6.7408
Jun-19	\$ 6.7395	\$ 6.7395	\$ 6.7395	\$ 6.7395
<b>Average</b>	<b>\$ 7.2454</b>	<b>\$ 7.1864</b>	<b>\$ 7.0647</b>	<b>\$ 7.1881</b>

**PGAC Hedging Rate Comparison: MERC CONSOLIDATED**

	<b><i>No Hedge</i></b>	<b><i>Hedge Plan</i></b>	<b><i>50% Futures</i></b>	<b><i>50% Options</i></b>
Jul-18	\$ 6.1272	\$ 6.1272	\$ 6.1272	\$ 6.1272
Aug-18	\$ 6.2309	\$ 6.2309	\$ 6.2309	\$ 6.2309
Sep-18	\$ 6.2825	\$ 6.2825	\$ 6.2825	\$ 6.2825
Oct-18	\$ 6.3157	\$ 6.3157	\$ 6.3157	\$ 6.3157
Nov-18	\$ 6.6072	\$ 6.5516	\$ 6.4404	\$ 6.5516
Dec-18	\$ 8.1963	\$ 7.5242	\$ 6.5767	\$ 7.3258
Jan-19	\$ 7.0488	\$ 6.9626	\$ 6.4720	\$ 7.1218
Feb-19	\$ 6.4155	\$ 6.4757	\$ 6.5332	\$ 6.5071
Mar-19	\$ 6.3124	\$ 6.3573	\$ 6.3892	\$ 6.3862
Apr-19	\$ 6.0417	\$ 6.0417	\$ 6.0417	\$ 6.0417
May-19	\$ 5.8533	\$ 5.8533	\$ 5.8533	\$ 5.8533
Jun-19	\$ 5.8714	\$ 5.8714	\$ 5.8714	\$ 5.8714
<b>Average</b>	<b>\$ 6.4419</b>	<b>\$ 6.3828</b>	<b>\$ 6.2612</b>	<b>\$ 6.3846</b>



# Input Data

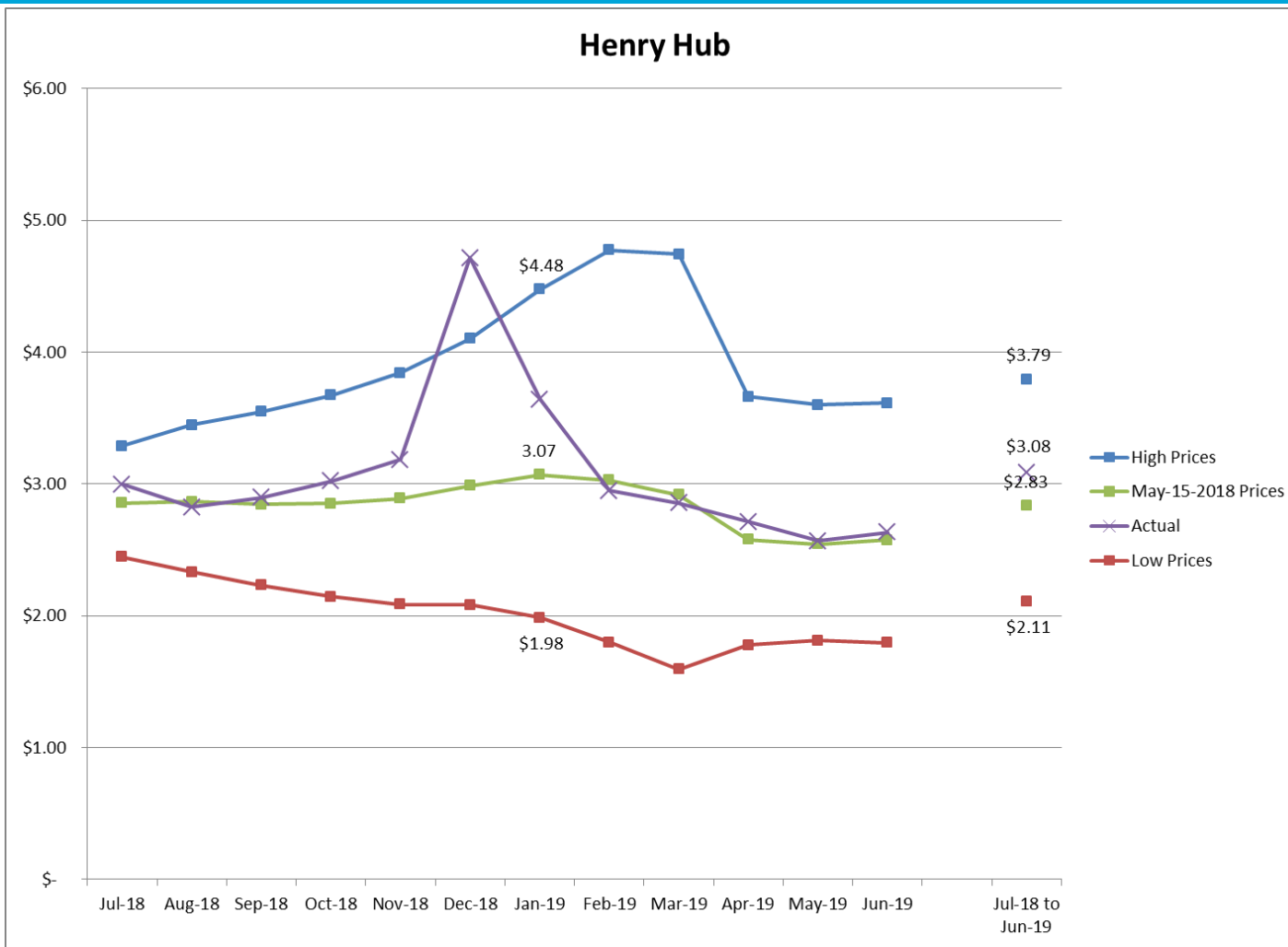
- Forward Curve as of May 15, 2018
- Implied Volatility Curve as of May 15, 2018
  - *In financial mathematics, the implied volatility of an option contract is the volatility implied by the market price of the option based on an option pricing model. In other words, it is the volatility that, when used in a particular pricing model, yields a theoretical value for the option equal to the current market price of that option. Implied volatility, a forward-looking measure, differs from historical volatility because the latter is calculated from known past returns of a security. (Source: [http://en.wikipedia.org/wiki/Implied\\_volatility](http://en.wikipedia.org/wiki/Implied_volatility))*

## Example of Input Data

- Jan-2019 Forward Price was \$3.07
- Jan-2019 Implied Volatility was 27%

- Once an implied volatility curve is known, we can build changes to the forward curve.
  - From May 15, 2018 to Jan 1, 2019 the forward curve for Jan-2019 changes as follows:
    - $Price_2 = Price_1(\$3.07) * e^{-(Implied\ Volatility(27\%)^2)/2 * (16/365)} + Random\ Variable_1 * Implied\ Volatility(27\%) * Square\ Root\ of\ (16/365)}$
    - $Price_3 = Price_2 * e^{-(Implied\ Volatility(27\%)^2)/2 * (30/365)} + Random\ Variable_2 * Implied\ Volatility(27\%) * Square\ Root\ of\ (30/365)}$
    - $Price_4 = Price_3 * e^{-(Implied\ Volatility(27\%)^2)/2 * (31/365)} + Random\ Variable_3 * Implied\ Volatility(27\%) * Square\ Root\ of\ (31/365)}$
    - Et cetera
    - $Price_9 = Price_8 * e^{-(Implied\ Volatility(27\%)^2)/2 * (31/365)} + Random\ Variable_8 * Implied\ Volatility(27\%) * Square\ Root\ of\ (31/365)}$

- *Jan-2019*
  - Catastrophic High Price is \$4.48
    - *2.5% chance of price greater than this price*
  - May-15-2018 Price is \$3.07
  - Low Price is \$1.98
    - *2.5% chance of price less than this price*
- *Jul-2018 to Jun-2019*
  - Catastrophic High Average Price is \$3.79
    - *2.5% chance of average price greater than this price*
  - May-15-2018 Average Price is \$2.83
  - Low Average Price is \$2.11
    - *2.5% chance of average price less than this price*



Average Residential Volumes			
	NNG	Con	
Jul-18	1.7597	0.8417	
Aug-18	1.2590	0.7570	
Sep-18	1.8638	1.0118	
Oct-18	3.1241	3.6881	
Nov-18	7.6230	8.5511	
Dec-18	15.1213	13.2633	
Jan-19	12.9371	14.8972	
Feb-19	17.8320	18.4342	
Mar-19	15.6260	15.5445	
Apr-19	8.7201	10.2386	
May-19	6.0485	6.1137	
Jun-19	2.9863	2.8904	
Average	7.9084	8.0193	

Total Cost in Monthly PGA Filings w/ hedging			
	NNG	Con	
Jul-18	\$ 11.84	\$ 5.16	
Aug-18	\$ 8.44	\$ 4.72	
Sep-18	\$ 12.58	\$ 6.36	
Oct-18	\$ 21.83	\$ 23.29	
Nov-18	\$ 57.47	\$ 56.02	
Dec-18	\$ 125.12	\$ 99.80	
Jan-19	\$ 103.34	\$ 103.72	
Feb-19	\$ 132.77	\$ 119.37	
Mar-19	\$ 111.79	\$ 98.82	
Apr-19	\$ 62.65	\$ 61.86	
May-19	\$ 40.77	\$ 35.79	
Jun-19	\$ 20.13	\$ 16.97	
Average	\$ 59.06	\$ 52.66	

Total Cost in Monthly PGA Filings w/o hedging			
	NNG	Con	
Jul-18	\$ 11.84	\$ 5.16	
Aug-18	\$ 8.44	\$ 4.72	
Sep-18	\$ 12.58	\$ 6.36	
Oct-18	\$ 21.83	\$ 23.29	
Nov-18	\$ 57.89	\$ 56.50	
Dec-18	\$ 135.28	\$ 108.71	
Jan-19	\$ 104.45	\$ 105.01	
Feb-19	\$ 131.70	\$ 118.27	
Mar-19	\$ 111.09	\$ 98.12	
Apr-19	\$ 62.65	\$ 61.86	
May-19	\$ 40.77	\$ 35.79	
Jun-19	\$ 20.13	\$ 16.97	
Average	\$ 59.89	\$ 53.40	

Average Residential Volumes - 120%			
	NNG	Con	
Jul-18	2.1117	1.0100	
Aug-18	1.5108	0.9084	
Sep-18	2.2366	1.2141	
Oct-18	3.7489	4.4257	
Nov-18	9.1476	10.2613	
Dec-18	18.1456	15.9160	
Jan-19	15.5245	17.8766	
Feb-19	21.3984	22.1211	
Mar-19	18.7512	18.6534	
Apr-19	10.4641	12.2864	
May-19	7.2582	7.3364	
Jun-19	3.5836	3.4685	
Average	9.4901	9.6232	

Total Cost in Monthly PGA Filings w/ hedging - 120%			
	NNG	Con	
Jul-18	\$ 14.21	\$ 6.19	
Aug-18	\$ 10.13	\$ 5.66	
Sep-18	\$ 15.10	\$ 7.63	
Oct-18	\$ 26.20	\$ 27.95	
Nov-18	\$ 68.96	\$ 67.23	
Dec-18	\$ 150.14	\$ 119.76	
Jan-19	\$ 124.00	\$ 124.47	
Feb-19	\$ 159.32	\$ 143.25	
Mar-19	\$ 134.15	\$ 118.59	
Apr-19	\$ 75.18	\$ 74.23	
May-19	\$ 48.93	\$ 42.94	
Jun-19	\$ 24.15	\$ 20.36	
Average	\$ 70.87	\$ 63.19	

Total Cost in Monthly PGA Filings w/o hedging - 120%			
	NNG	Con	
Jul-18	\$ 14.21	\$ 6.19	
Aug-18	\$ 10.13	\$ 5.66	
Sep-18	\$ 15.10	\$ 7.63	
Oct-18	\$ 26.20	\$ 27.95	
Nov-18	\$ 69.47	\$ 67.80	
Dec-18	\$ 162.34	\$ 130.45	
Jan-19	\$ 125.34	\$ 126.01	
Feb-19	\$ 158.04	\$ 141.92	
Mar-19	\$ 133.31	\$ 117.75	
Apr-19	\$ 75.18	\$ 74.23	
May-19	\$ 48.93	\$ 42.94	
Jun-19	\$ 24.15	\$ 20.36	
Average	\$ 71.87	\$ 64.07	

Average Residential Volumes - 80%			
	NNG	Con	
Jul-18	1.4078	0.6733	
Aug-18	1.0072	0.6056	
Sep-18	1.4911	0.8094	
Oct-18	2.4993	2.9505	
Nov-18	6.0984	6.8408	
Dec-18	12.0971	10.6107	
Jan-19	10.3497	11.9177	
Feb-19	14.2656	14.7474	
Mar-19	12.5008	12.4356	
Apr-19	6.9761	8.1909	
May-19	4.8388	4.8909	
Jun-19	2.3891	2.3123	
Average	6.3267	6.4154	

Total Cost in Monthly PGA Filings w/ hedging - 80%			
	NNG	Con	
Jul-18	\$ 9.47	\$ 4.13	
Aug-18	\$ 6.75	\$ 3.77	
Sep-18	\$ 10.07	\$ 5.09	
Oct-18	\$ 17.47	\$ 18.63	
Nov-18	\$ 45.97	\$ 44.82	
Dec-18	\$ 100.10	\$ 79.84	
Jan-19	\$ 82.67	\$ 82.98	
Feb-19	\$ 106.22	\$ 95.50	
Mar-19	\$ 89.43	\$ 79.06	
Apr-19	\$ 50.12	\$ 49.49	
May-19	\$ 32.62	\$ 28.63	
Jun-19	\$ 16.10	\$ 13.58	
Average	\$ 47.25	\$ 42.13	

Total Cost in Monthly PGA Filings w/o hedging - 80%			
	NNG	Con	
Jul-18	\$ 9.47	\$ 4.13	
Aug-18	\$ 6.75	\$ 3.77	
Sep-18	\$ 10.07	\$ 5.09	
Oct-18	\$ 17.47	\$ 18.63	
Nov-18	\$ 46.31	\$ 45.20	
Dec-18	\$ 108.23	\$ 86.97	
Jan-19	\$ 83.56	\$ 84.01	
Feb-19	\$ 105.36	\$ 94.61	
Mar-19	\$ 88.87	\$ 78.50	
Apr-19	\$ 50.12	\$ 49.49	
May-19	\$ 32.62	\$ 28.63	
Jun-19	\$ 16.10	\$ 13.58	
Average	\$ 47.91	\$ 42.72	

Average Residential Volumes			
	NNG	Con	
Jul-18	1.7597	0.8417	
Aug-18	1.2590	0.7570	
Sep-18	1.8638	1.0118	
Oct-18	3.1241	3.6881	
Nov-18	7.6230	8.5511	
Dec-18	15.1213	13.2633	
Jan-19	12.9371	14.8972	
Feb-19	17.8320	18.4342	
Mar-19	15.6260	15.5445	
Apr-19	8.7201	10.2386	
May-19	6.0485	6.1137	
Jun-19	2.9863	2.8904	
Average	7.9084	8.0193	

Total Cost in Monthly PGA Filings w/ hedging at Catastrophic Prices			
	NNG	Con	
Jul-18	\$ 11.84	\$ 5.16	
Aug-18	\$ 8.44	\$ 4.72	
Sep-18	\$ 12.58	\$ 6.36	
Oct-18	\$ 21.83	\$ 23.29	
Nov-18	\$ 47.43	\$ 54.15	
Dec-18	\$ 116.82	\$ 96.43	
Jan-19	\$ 94.99	\$ 110.24	
Feb-19	\$ 134.99	\$ 135.86	
Mar-19	\$ 124.86	\$ 114.86	
Apr-19	\$ 62.65	\$ 61.86	
May-19	\$ 40.77	\$ 35.79	
Jun-19	\$ 20.13	\$ 16.97	
Average	\$ 58.11	\$ 55.47	

Total Cost in Monthly PGA Filings no hedging at Catastrophic Prices			
	NNG	Con	
Jul-18	\$ 11.84	\$ 5.16	
Aug-18	\$ 8.44	\$ 4.72	
Sep-18	\$ 12.58	\$ 6.36	
Oct-18	\$ 21.83	\$ 23.29	
Nov-18	\$ 68.25	\$ 68.10	
Dec-18	\$ 147.98	\$ 125.87	
Jan-19	\$ 128.45	\$ 141.58	
Feb-19	\$ 153.19	\$ 160.96	
Mar-19	\$ 150.10	\$ 134.59	
Apr-19	\$ 62.65	\$ 61.86	
May-19	\$ 40.77	\$ 35.79	
Jun-19	\$ 20.13	\$ 16.97	
Average	\$ 68.85	\$ 65.44	

Average Residential Volumes - 120%			
	NNG	Con	
Jul-18	2.11	1.01	
Aug-18	1.51	0.91	
Sep-18	2.24	1.21	
Oct-18	3.75	4.43	
Nov-18	9.15	10.26	
Dec-18	18.15	15.92	
Jan-19	15.52	17.88	
Feb-19	21.40	22.12	
Mar-19	18.75	18.65	
Apr-19	10.46	12.29	
May-19	7.26	7.34	
Jun-19	3.58	3.47	
Average	9.49	9.62	

Total Cost in Monthly PGA Filings w/ hedging at Catastrophic Prices			
	NNG	Con	
Jul-18	\$ 14.21	\$ 6.19	
Aug-18	\$ 10.13	\$ 5.66	
Sep-18	\$ 15.10	\$ 7.63	
Oct-18	\$ 26.20	\$ 27.95	
Nov-18	\$ 56.91	\$ 64.98	
Dec-18	\$ 140.18	\$ 115.72	
Jan-19	\$ 113.99	\$ 132.29	
Feb-19	\$ 161.99	\$ 163.03	
Mar-19	\$ 149.83	\$ 137.84	
Apr-19	\$ 75.18	\$ 74.23	
May-19	\$ 48.93	\$ 42.94	
Jun-19	\$ 24.15	\$ 20.36	
Average	\$ 69.73	\$ 66.57	

Total Cost in Monthly PGA Filings no hedging at Catastrophic Prices			
	NNG	Con	
Jul-18	\$ 14.21	\$ 6.19	
Aug-18	\$ 10.13	\$ 5.66	
Sep-18	\$ 15.10	\$ 7.63	
Oct-18	\$ 26.20	\$ 27.95	
Nov-18	\$ 81.90	\$ 81.72	
Dec-18	\$ 177.58	\$ 151.04	
Jan-19	\$ 154.14	\$ 169.90	
Feb-19	\$ 183.83	\$ 193.15	
Mar-19	\$ 180.12	\$ 161.51	
Apr-19	\$ 75.18	\$ 74.23	
May-19	\$ 48.93	\$ 42.94	
Jun-19	\$ 24.15	\$ 20.36	
Average	\$ 82.62	\$ 78.52	

Average Residential Volumes - 80%			
	NNG	Con	
Jul-18	1.41	0.67	
Aug-18	1.01	0.61	
Sep-18	1.49	0.81	
Oct-18	2.50	2.95	
Nov-18	6.10	6.84	
Dec-18	12.10	10.61	
Jan-19	10.35	11.92	
Feb-19	14.27	14.75	
Mar-19	12.50	12.44	
Apr-19	6.98	8.19	
May-19	4.84	4.89	
Jun-19	2.39	2.31	
Average	6.33	6.42	

Total Cost in Monthly PGA Filings w/ hedging at Catastrophic Prices			
	NNG	Con	
Jul-18	\$ 9.47	\$ 4.13	
Aug-18	\$ 6.75	\$ 3.77	
Sep-18	\$ 10.07	\$ 5.09	
Oct-18	\$ 17.47	\$ 18.63	
Nov-18	\$ 37.94	\$ 43.32	
Dec-18	\$ 93.45	\$ 77.15	
Jan-19	\$ 75.99	\$ 88.19	
Feb-19	\$ 107.99	\$ 108.69	
Mar-19	\$ 99.89	\$ 91.89	
Apr-19	\$ 50.12	\$ 49.49	
May-19	\$ 32.62	\$ 28.63	
Jun-19	\$ 16.10	\$ 13.58	
Average	\$ 46.49	\$ 44.38	

Total Cost in Monthly PGA Filings no hedging at Catastrophic Prices			
	NNG	Con	
Jul-18	\$ 9.47	\$ 4.13	
Aug-18	\$ 6.75	\$ 3.77	
Sep-18	\$ 10.07	\$ 5.09	
Oct-18	\$ 17.47	\$ 18.63	
Nov-18	\$ 54.60	\$ 54.48	
Dec-18	\$ 118.38	\$ 100.69	
Jan-19	\$ 102.76	\$ 113.27	
Feb-19	\$ 122.55	\$ 128.77	
Mar-19	\$ 120.08	\$ 107.67	
Apr-19	\$ 50.12	\$ 49.49	
May-19	\$ 32.62	\$ 28.63	
Jun-19	\$ 16.10	\$ 13.58	
Average	\$ 55.08	\$ 52.35	

WACOG Projection in Monthly PGA Filings w/ Hedging			Natural Log of Price Change			WACOG Projections in Monthly PGA Filings w/o Hedging			Natural Log of Price Change		
	NNG	CONS		NNG	CONS		NNG	CONS		NNG	CONS
Jun-18	\$ 3.7250	\$ 3.2707					\$ 3.7250	\$ 3.2707			
Jul-18	\$ 2.3899	\$ 2.6166		-0.4438	-0.2231		\$ 2.3899	\$ 2.6166		-0.4438	-0.2231
Aug-18	\$ 2.3620	\$ 2.7253		-0.0117	0.0407		\$ 2.3620	\$ 2.7253		-0.0117	0.0407
Sep-18	\$ 2.4455	\$ 2.6238		0.0347	-0.0380		\$ 2.4455	\$ 2.6238		0.0347	-0.0380
Oct-18	\$ 2.2187	\$ 2.6081		-0.0973	-0.0060		\$ 2.2187	\$ 2.6081		-0.0973	-0.0060
Nov-18	\$ 2.4265	\$ 2.4286		0.0895	-0.0713		\$ 2.4821	\$ 2.4842		0.1122	-0.0487
Dec-18	\$ 2.5911	\$ 2.1373		0.0656	-0.1278		\$ 3.2632	\$ 2.8094		0.2736	0.1230
Jan-19	\$ 2.5356	\$ 1.9352		-0.0217	-0.0993		\$ 2.6218	\$ 2.0214		-0.2189	-0.3292
Feb-19	\$ 3.6277	\$ 2.5172		0.3582	0.2629		\$ 3.5675	\$ 2.4570		0.3080	0.1952
Mar-19	\$ 2.2905	\$ 2.4410		-0.4598	-0.0307		\$ 2.2456	\$ 2.3961		-0.4629	-0.0251
Apr-19	\$ 2.2376	\$ 2.3237		-0.0234	-0.0492		\$ 2.2376	\$ 2.3237		-0.0036	-0.0307
May-19	\$ 2.3354	\$ 2.4780		0.0428	0.0643		\$ 2.3354	\$ 2.4780		0.0428	0.0643
Jun-19	\$ 2.3230	\$ 2.4704		-0.0053	-0.0031		\$ 2.3230	\$ 2.4704		-0.0053	-0.0031
<b>Annual Volatility</b>				<b>73.77%</b>	<b>39.28%</b>					<b>79.72%</b>	<b>46.48%</b>
<b>Volatility Reduction Due to Hedging</b>				<b>8.08%</b>	<b>18.34%</b>						

Definition:

The relative rate at which the price of a security moves up and down.

Equation:

Annual price volatility ( $v_a$ ) is calculated as the standard deviation of **monthly price changes times the square root of 12**.

Where:

$v_a$  = Standard Deviation ( $c_{1 to n}$ ) x Square root of 12

$c_i$  =  $\ln(p_i/p_{i-1})$   $\ln$  = Natural Logarithm

$p_i$  = Price for month i

Source: *Options, Futures and Other Derivatives*, John C. Hull, pages 232-234



**MINNESOTA ENERGY RESOURCES -CON**  
Third Party Damage Bills July 2018 - June 2019

Schedule Q

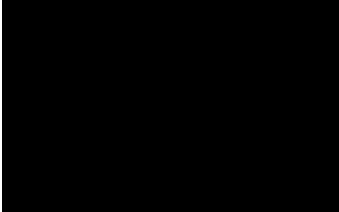
[TRADE SECRET DATA BEGINS...

Responsible Party	Pipeline	Gas Loss Billed	Gas Loss Dths	Date of Damage
	Viking	\$ (20.68)	6.08	2/4/2018
	Viking	\$ (78.91)	23.62	5/26/2018
	Viking	\$ (99.44)	29.76	5/31/2018
	Centra	\$ 5.17	1.55	6/14/2018
	Centra	\$ (49.57)	14.88	6/19/2018
	Centra	\$ (2.22)	0.67	6/19/2018
	Great Lakes	\$ (6.43)	1.85	7/3/2018
	Great Lakes	\$ (18.67)	5.36	7/3/2018
	Centra	\$ (16.20)	4.65	7/10/2018
	Great Lakes	\$ (174.94)	50.22	7/19/2018
	Great Lakes	\$ (347.16)	99.66	7/25/2018
	Viking	\$ (1.02)	0.29	8/7/2018
	Great Lakes	\$ (8.79)	2.45	8/8/2018
	Great Lakes	\$ (4.45)	1.24	8/16/2018
	Viking	\$ (15.50)	4.32	8/21/2018
	Great Lakes	\$ (8.93)	2.28	9/3/2018
	Great Lakes	\$ (16.68)	4.65	9/4/2018
	Great Lakes	\$ (5,628.70)	1,425.60	9/14/2018
	Viking	\$ (11.31)	2.89	9/20/2018
	Great Lakes	\$ (1.88)	0.48	9/24/2018
	Viking	\$ (27.29)	6.20	9/29/2018
	Centra	\$ (26.45)	6.70	10/4/2018
	Great Lakes	\$ (8.05)	2.04	10/7/2018
	Great Lakes	\$ (88.36)	22.38	10/17/2018
	Great Lakes	\$ (9.24)	2.34	10/18/2018
	Great Lakes	\$ (18.48)	4.68	10/22/2018
	Great Lakes	\$ (881.26)	223.20	10/22/2018
	Great Lakes	\$ (50.46)	0.03	10/31/2018
	Viking	\$ (51.88)	12.40	11/5/2018
	Great Lakes	\$ (2.08)	0.50	11/8/2018
	Great Lakes	\$ (677.61)	161.95	11/13/2018
	Great Lakes	\$ (1,265.97)	302.56	11/20/2018
	Centra	\$ (12.69)	2.46	12/28/2018
	Great Lakes	\$ (384.60)	83.70	1/9/2019
	Viking	\$ (716.90)	174.50	2/13/2019
	Viking	\$ (46.79)	11.73	3/12/2019
	Centra	\$ (32.42)	9.30	5/19/2019

...TRADE SECRET DATA ENDS]

...TRADE SECRET DATA BEGINS...

**PUBLIC DOCUMENT--TRADE SECRET DATA  
HAS BEEN EXCISED**

	Great Lakes	\$	(46.71)	13.40	5/20/2019
	Viking	\$	(121.00)	34.71	5/21/2019
	Great Lakes	\$	(6.52)	0.03	6/3/2019
	Viking	\$	(14.22)	3.24	6/7/2019
		\$	(10,995.29)	2,760.55	

...TRADE SECRET DATA ENDS]

In the Matter of the Annual Automatic  
Adjustment Report of Minnesota Energy  
Resources Corporation MERC-Consolidated

Docket No. G999/AA-19-401

CERTIFICATE OF SERVICE

I, Kristin M. Stastny, hereby certify that on the 30th day of August, 2019, on behalf of Minnesota Energy Resources Corporation ("MERC"), I electronically filed a true and correct copy of the enclosed Annual Automatic Adjustment Report of MERC – CON on [www.edockets.state.mn.us](http://www.edockets.state.mn.us). Said documents were also served via U.S. mail and electronic service as designated on the attached service list.

Dated this 30th day of August, 2019.

/s/ Kristin M. Stastny  
Kristin M. Stastny

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Tamie A.	Aberle	tamie.aberle@mdu.com	Great Plains Natural Gas Co.	400 North Fourth Street  Bismarck, ND 585014092	Electronic Service	No	OFF_SL_19-401_AA-19-401
Kristine	Anderson	kanderson@greatermngas.com	Greater Minnesota Gas, Inc.	202 S. Main Street  Le Sueur, MN 56058	Electronic Service	No	OFF_SL_19-401_AA-19-401
Steven	Clay	Steven.Clay@CenterPoint Energy.com	CenterPoint Energy Minnesota Gas	505 Nicollet Mall  Minneapolis, MN 55402	Electronic Service	No	OFF_SL_19-401_AA-19-401
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1800  St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_19-401_AA-19-401
Marie	Doyle	marie.doyle@centerpointenergy.com	CenterPoint Energy	505 Nicollet Mall P O Box 59038 Minneapolis, MN 554590038	Electronic Service	No	OFF_SL_19-401_AA-19-401
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280  Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_19-401_AA-19-401
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Greg	Palmer	gpalmer@greatermngas.com	Greater Minnesota Gas, Inc.	PO Box 68 202 South Main Street Le Sueur, MN 56058	Electronic Service	No	OFF_SL_19-401_AA-19-401
Lisa	Peterson	lisa.r.peterson@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7  Minneapolis, MN 55401	Electronic Service	No	OFF_SL_19-401_AA-19-401

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_19-401_AA-19-401
Peggy	Sorum	peggy.sorum@centerpointenergy.com	CenterPoint Energy	505 Nicollet Mall Minneapolis, MN 55402	Electronic Service	No	OFF_SL_19-401_AA-19-401
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Lynnette	Sweet	Regulatory.records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_19-401_AA-19-401
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_19-401_AA-19-401
Mary	Wolter	mary.wolter@wecenergygroup.com	Minnesota Energy Resources Corporation (HOLDING)	231 West Michigan St Milwaukee, WI 53203	Electronic Service	No	OFF_SL_19-401_AA-19-401

[illegible]

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Daryll	Fuentes	dfuentes@usg.com	USG Corporation	550 W Adams St  Chicago, IL 60661	Electronic Service	No	GEN_SL_Minnesota Energy Resources Corporation (HOLDING)_2018-2019 AAA and True Up Reports
David P.	Geschwind	dp.geschwind@smmpa.org	Southern Minnesota Municipal Power Agency	500 First Avenue SW  Rochester, MN 55902	Electronic Service	No	GEN_SL_Minnesota Energy Resources Corporation (HOLDING)_2018-2019 AAA and True Up Reports
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Eric	Lipman	eric.lipman@state.mn.us	Office of Administrative Hearings	PO Box 64620  St. Paul, MN 551640620	Electronic Service	No	GEN_SL_Minnesota Energy Resources Corporation (HOLDING)_2018-2019 AAA and True Up Reports
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Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	No	GEN_SL_Minnesota Energy Resources Corporation (HOLDING)_2018-2019 AAA and True Up Reports
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Samantha	Williams	swilliams@nrdc.org	Natural Resources Defense Council	20 N. Wacker Drive Ste 1600 Chicago, IL 60606	Electronic Service	No	GEN_SL_Minnesota Energy Resources Corporation (HOLDING)_2018-2019 AAA and True Up Reports
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	No	GEN_SL_Minnesota Energy Resources Corporation (HOLDING)_2018-2019 AAA and True Up Reports
Mary	Wolter	mary.wolter@wecenergygroup.com	Minnesota Energy Resources Corporation (HOLDING)	231 West Michigan St  Milwaukee, WI 53203	Electronic Service	No	GEN_SL_Minnesota Energy Resources Corporation (HOLDING)_2018-2019 AAA and True Up Reports
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