

August 2, 2016

Minnesota Energy Resources Corporation

Suite 200 1995 Rahncliff Court Eagan, MN 55122

www.minnesotaenergyresources.com

VIA ELECTRONIC FILING

PUBLIC DOCUMENT— TRADE SECRET DATA HAS BEEN EXCISED

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

Re:

In the Matter of the Petition of Minnesota Energy Resources Corporation for Approval for Recovery of Natural Gas Extension Project Costs through a Rider and for Approval of a New Area Surcharge for the Esko Project Docket No. G011/M-16-

Dear Mr. Wolf:

Minnesota Energy Resources Corporation ("MERC" or the "Company") submits this miscellaneous rate change and tariff filing to the Minnesota Public Utilities Commission ("Commission") for approval of a Natural Gas Extension Project Rider and a New Area Surcharge ("NAS") to recover costs to extend natural gas service to customers in Esko Township, Minnesota. MERC seeks to recover less than 33 percent of the project costs under the Natural Gas Extension Project Rider Statute (Minn. Stat. §216B.1638), with the NAS financing the remainder of project costs.

The nonpublic version of this filing contains trade secret information. Specifically, the cost of plant additions, estimated customer sign-ups, estimated customer usage, and project map contained in Exhibits B and C of the filing are not generally known to, and not readily ascertainable by, vendors and competitors of MERC, who could obtain economic value from their disclosure. MERC maintains this information as trade secret. Accordingly, the nonpublic version of the New Area Surcharge filing contains data that qualifies as "Trade Secret Data" pursuant to Minnesota Statutes section 13.37, subdivision 1(b). The nonpublic version of Exhibit C is filed as a separate Excel file.

A copy of this miscellaneous tariff filing has been served on the Office of Attorney General – Residential Utilities and Antitrust Division. A summary of the filing has been served on all parties on MERC's general service list.

Please contact me at (651) 322-8965 if you have any questions.

Sincerely,

/s/ Amber S. Lee
Amber S. Lee
Regulatory and Legislative Affairs Manager
Minnesota Energy Resources Corporation

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger

Nancy Lange

Dan Lipschultz

Matt Schuerger

John Tuma

Chair

Commissioner

Commissioner

Commissioner

Commissioner

In the Matter of the Petition of Minnesota Energy Resources Corporation for Approval for Recovery of Natural Gas Extension Project Costs through a Rider and for Approval of a New Area Surcharge for the Esko Project

Docket No. G-011/M-16-____

Pursuant to Minnesota Statutes section 216B.1638 and Minnesota Rules part

7829.1300, Minnesota Energy Resources Corporation ("MERC") submits to the Minnesota

Public Utilities Commission ("Commission") this Petition for approval to recover [TRADE

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extend natural gas service to customers in Esko, Minnesota through a Natural Gas Extension

Project Rider under Minn. Stat. § 216B.1638 and for approval of a New Area Surcharge ("NAS")

to finance the remainder of project costs. The Esko Project is designed to extend natural gas

service to a currently unserved area and the proposed project costs are reasonable.

This filing includes the following:

- One paragraph summary of the filing in accordance with Minn. R. 7829.1300, subp. 1.
- Petition for Approval of Natural Gas Extension Rider and New Area Surcharge for the Esko Project.
- Exhibit A Clean and redlined proposed tariff sheets.
- Exhibit B Map of the Esko Project Area.
- Exhibit C Proposed Natural Gas Extension Rider and Proposed New Area Surcharge Workpapers and Assumptions (Public and Nonpublic versions).
- Exhibit D Proposed Customer Notices.

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 has served a copy of this petition on the Office of the Attorney General – Residential Utilities and Antitrust Division. The summary of the filing has been served on all parties on the attached service list.

III. General Filing Information

Pursuant to Minn. R. 7829.1300, subp.3, the following information is provided:

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

Minnesota Energy Resources Corporation 1995 Rahncliff Court, Suite 200 Eagan, MN 55122 (651) 322-8901

B. Name, Address, Electronic Address, and Telephone Number of Attorney for the Utility

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

C. Date of the Filing and Date Proposed Agreement Will Take Effect

Date of Filing: August 2, 2016

Proposed Effective Date: Upon Commission Approval

MERC respectfully requests that the Commission rule on this filing so that construction of a service extension for the Esko Project may begin. Once approval has been received, the project will be scheduled. MERC is proposing to complete construction on the Esko Project during the regular 2017 construction season so that customers who sign up will receive natural gas service by the beginning of the 2017-2018 heating season. Completion of the interstate pipeline tap is necessary before MERC can complete construction of the extension project.

D. Statute Controlling Schedule for Processing the Filing

MERC submits its request for approval of rider recovery under Minn. Stat. § 216B.1638, which authorizes a public utility to petition the Commission outside a general rate case for a rider to recover the revenue deficiency from a natural gas extension project. Under Minn. R. 7829.0100, subp. 11, this petition is a "miscellaneous" filing because no determination of MERC's general revenue requirement is necessary. Comments on a miscellaneous filing are due within 30 days of filing, with replies due 10 days thereafter. See Minn. R. 7829.1400, subps. 1, 4.

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

Amber S. Lee Regulatory and Legislative Affairs Manager ASLee@minnesotaenergyresources.com 1995 Rahncliff Court, Suite 200 Eagan, MN 55122 (651) 322-8965

F. Description of the Filing, Impact on Rates and Services, and Reasons for the Filing

Pursuant to Minn. Stat. § 216B.1638, MERC is requesting approval for recovery of [TRADE SECRET DATA BEGINS... ... TRADE SECRET DATA ENDS] of the costs of new infrastructure and upgrades to existing natural gas facilities necessary to serve the currently unserved area of Esko, Minnesota. Pursuant to Minn. Stat. § 216B.1638, a public utility may petition the Commission outside of a general rate case for a rider that shall include all of the utility's customers, including transport customers, to recover the revenue deficiency from a natural gas extension project. The Esko Project meets the definition of a natural gas extension project because the Project is necessary to serve the currently unserved area of Esko, Minnesota. The Esko Project area is not currently served by natural gas; therefore, this Project area is a qualifying area in the state lacking adequate natural gas pipeline infrastructure to meet the demand of existing or potential end-use customers.

Pursuant to Minn. R. 7829.1300 and MERC's approved New Area Surcharge tariffs,
MERC is requesting approval to establish a New Area Surcharge for customers located in Esko
Township, in northern Minnesota, to provide natural gas service to customers in the Esko
Project area who do not currently receive natural gas service. A New Area Surcharge is
designed to permit a natural gas company to extend service into a new area it would be
uneconomical to serve at tariffed rates, by permitting the company to collect an additional
surcharge. By extending the necessary contributions in aid of construction of the project costs

over twenty-five years rather than charging a one-time charge, the project will be made

affordable to customers wishing to switch to natural gas service. The impact of this petition on

rates and services will be to extend natural gas service to a new area of customers who have

not previously been served. Those customers' rates will include a monthly new area surcharge

in addition to currently authorized rates for natural gas service to pay for the costs of the natural

gas extension.

In addition to MERC's capital investments to extend natural gas to the Esko Project

area, a tap from the NNG interstate pipeline to connect to this area is also necessary. MERC

proposes to include [TRADE SECRET DATA BEGINS... ... TRADE SECRET

DATA ENDS] of the NNG project costs in the proposed rider and to recover the remainder of

those costs as O&M through the NAS, amortized over the proposed twenty-five year term of the

NAS. MERC also requests approval to apply a carrying charge at MERC's authorized short-

term cost of debt on the amortized NNG costs.

IV. **Miscellaneous Information**

Pursuant to Minn. R. 7829.0700, MERC requests that the following persons be placed

on the Commission's official service list for this matter:

Amber S. Lee

Regulatory and Legislative Affairs Manager

Minnesota Energy Resources Corporation

1995 Rahncliff Court, Suite 200

Eagan, MN 55122

(651) 322-8965

ASLee@minnesotaenergyresources.com

If additional information is required, please contact Amber S. Lee at (651) 322-8965 or

Kristin M. Stastny at (612) 977-8656.

DATED: August 2, 2016

Respectfully Submitted,

BRIGGS AND MORGAN, P.A.

By /s/ Kristin M. Stastny

Kristin M. Stastny

2200 IDS Center

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80 South 8th Street Minneapolis, MN 55402 Telephone: (612) 977-8656 KStastny@Briggs.com

Attorney for Minnesota Energy Resources Corporation

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger Chair
Nancy Lange Commissioner
Dan Lipschultz Commissioner
Matt Schuerger Commissioner
John Tuma Commissioner

In the Matter of the Petition of Minnesota Energy Resources Corporation for Approval for Recovery of Natural Gas Extension Project Costs through a Rider and for Approval of a New Area Surcharge for the Esko Project

Docket No. G-011/M-16-

SUMMARY OF FILING

Pursuant to Minnesota Statutes section 216B.1638 and Minnesota Rules part 7829.1300, Minnesota Energy Resources Corporation ("MERC") submits to the Minnesota Public Utilities Commission ("Commission") this Petition for approval of a Natural Gas Extension Project Rider and a New Area Surcharge ("NAS) to recover costs to extend natural gas service to customers in Esko Township, Minnesota. MERC seeks to recover less than 33 percent of the project costs under the Natural Gas Extension Project Rider (Minn. Stat. § 216B.1638) with the NAS financing the remainder of project costs for a period of twenty-five years. MERC also requests approval to amortize the costs associated with upgrades to the interstate pipeline, which are necessary to provide natural gas service to the Esko Project area, over a period of twenty-five years, including carrying costs at MERC's currently authorized short-term cost of debt.

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger

Nancy Lange

Dan Lipschultz

Matt Schuerger

John Tuma

Chair

Commissioner

Commissioner

Commissioner

Commissioner

In the Matter of the Petition of Minnesota Energy Resources Corporation for Approval for Recovery of Natural Gas Extension Project Costs through a Rider and for Approval of a New Area Surcharge for the Esko Project

Docket No. G-011/M-16-

PETITION FOR APPROVAL OF NATURAL GAS EXTENSION PROJECT RIDER AND NEW AREA SURCHARGE

I. INTRODUCTION

Minnesota Energy Resources Corporation ("MERC" or the "Company") submits for Commission approval a miscellaneous rate change filing for approval to recover [TRADE SECRET DATA BEGINS...

... TRADE SECRET DATA ENDS] of the costs to extend natural gas service to customers in Esko, Minnesota through a Natural Gas Extension Project ("NGEP") Rider under Minn. Stat. § 216B.1638 and for approval of a New Area Surcharge ("NAS") to finance the remainder of project costs over twenty-five years. The Esko Project is designed to extend natural gas service to a currently unserved area and the proposed project costs are reasonable. The proposed new area surcharges for the Esko Project were calculated according to the model approved by the Commission in MERC's Detroit Lakes — Long Lake New Area Surcharge proceeding, Docket No. G011/M-15-441. MERC proposes a twenty-five year term for the Esko Project New Area Surcharge. The proposed clean and redline tariff sheet revisions are included as Exhibit A and a map of the area to be served is included as Exhibit B to this filing. MERC also requests approval to amortize the costs associated with upgrades to the interstate pipeline, which are necessary to provide natural gas

service to the Esko Project area, over a period of twenty-five years, including carrying costs at MERC's currently authorized short-term cost of debt.

Minn. Stat. § 216B.1638, the NGEP Rider Statute, provides that "[a] public utility may petition the Commission outside a general rate case for a rider that shall include all of the utility's customers, including transport customers, to recover the revenue deficiency from a natural gas extension project." The revenue deficiency of an NGEP is defined as:

> The deficiency in funds that results when [1] projected revenues from customers receiving natural gas service as the result of a natural gas extension project, plus [2] any contribution in aid of construction paid by these customers, fall short of the total revenue requirement of the natural gas extension project.¹

The calculation of the revenue deficiency "must include [1] the currently authorized rate of return, [2] incremental income taxes, [3] incremental property taxes, [4] incremental depreciation expenses, and [5] any incremental operation and maintenance costs."² Subdivision 2 sets forth the requirements for a petition seeking approval of an NGEP Rider and Subdivision 3 of the statute provides that the Commission must not approve a rider that allows a utility to recover more than "33 percent of the costs of a natural gas extension project." The required information for a petition seeking approval of an NGEP is provided below.

II. NATURAL GAS EXTENSION PROJECT RIDER

The following is submitted in accordance with Minn. Stat. § 216B.1638:

A. Description of Natural Gas Extension Project

Minn. Stat. § 216B.1638, subd. 2(b)(1) requires that a Petition for approval of an NGEP Rider include a description of the NGEP, including the number and location of new customers to be served and the distance over which natural gas will be distributed to serve the unserved or inadequately served area.

¹ Minn. Stat. § 216B.1638, subd. 1(f). The "total revenue requirement" of a project means "the total cost of extending and maintaining natural gas service to a currently unserved or inadequately served area." *Id.*, subd. 1(g). ² Minn. Stat. § 216B.1638, subd. 3(d).

| The Esko Project is designed to extend natural gas service to a currently unserved area |
|---|
| in Esko, Minnesota, by connecting to the NNG interstate pipeline system [TRADE SECRET |
| DATA BEGINS |
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| |
| TRADE SECRET DATA ENDS]. Services |
| and meters will be installed in accordance with customers' requests and costs will be |
| determined in accordance with MERC's approved service extension tariff and 75-foot service |
| line allowance. See Nonpublic Exhibit B for a map of the proposed Project area. Based on |
| initial outreach and projections, MERC is projecting [TRADE SECRET DATA BEGINS |
| |
| TRADE |
| SECRET DATA ENDS] to sign up during the first year of the Project. During the 25-year |
| Project life, MERC has initially projected [TRADE SECRET DATA BEGINS |
| |
| TRADE SECRET DATA ENDS] will participate in the Project. As |
| discussed in greater detail below, while MERC is not currently projecting any customers taking |
| service within the Large Volume Interruptible class, economic conditions could drive a customer |
| to switch from firm Commercial/Industrial service to Interruptible and/or from Small Volume |
| Interruptible to Large Volume Interruptible service. These new customers will all be located |
| within the Township of Esko, Minnesota in an area that is primarily residential. |
| Esko Township has provided a current count of [TRADE SECRET DATA BEGINS |
| |
| TRADE SECRET DATA ENDS] in the industrial park, and the Township has indicated |
| TRADE SECRET DATA BEGINS |

| TRADE SECRET DATA ENDS]. The Townshi |
|---|
| anticipates that with natural gas availability, the interest in development will increase. [TRADE |
| SECRET DATA BEGINS |
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| TRADE SECRET DATA ENDS]. The County and |
| Township believe natural gas availability will spur additional development within the industrial |
| park. |
| B. Proposed Construction Schedule |
| Minn. Stat. § 216B.1638, subd. 2(b)(2) requires that a Petition for approval of an NGEP |
| Rider include the project's construction schedule. Pending Commission review and approval, |
| MERC is proposing to complete construction on the Esko Project during the regular 2017 |
| construction season so that customers who sign up will receive natural gas service by the |
| beginning of the 2017-2018 heating season. Completion of the interstate pipeline connection |

...TRADE SECRET DATA ENDS].

and new town border station is necessary before MERC can complete construction of the

extension project. MERC has projected a construction schedule [TRADE SECRET DATA

C. Contributions in Aid of Construction

BEGINS...

Minn. Stat. § 216B.1638, subd. 2(b)(4) requires that a Petition for an NGEP Rider shall include the amount of any contributions in aid of construction. Minn. Stat. § 216B.1638, subd. 2(b)(5) requires that a Petition for an NGEP Rider shall include a description of efforts made by the public utility to offset the revenue deficiency through contributions in aid of construction.

To determine the amount proposed for recovery via an NGEP Rider, [TRADE SECRET

DATA BEGINS...
...TRADE SECRET DATA
ENDS].

Once the amount proposed for rider recovery was determined, MERC utilized the approved New Area Surcharge model to calculate the contribution in aid of construction, or the portion of Project costs that is not load and cost justified under MERC's existing natural gas rates. MERC relied upon its past experience with other approved New Area Surcharges to determine a range of NAS that would be likely to encourage the highest level of participation by potential customers in the Project Area. The portion of total project costs less the [TRADE SECRET DATA BEGINS... ... TRADE SECRET DATA ENDS] of costs proposed to be recovered through an NGEP rider that were not determined to be cost and load justified will be recovered as a contribution in aid of construction from participating customers through a New Area Surcharge. In other words, MERC utilized the following process to determine the contribution in aid of construction that would be proposed for recovery via a New Area Surcharge:

Step 1: Determine percentage of total project costs (MERC construction costs and incremental O&M costs related to NNG upgrades) (up to 33 percent) to be recovered via an NGEP Rider in order to make the NAS reasonably affordable. [TRADE SECRET DATA BEGINS...
...TRADE SECRET DATA ENDS].

Step 2: Run total project costs (MERC construction costs and incremental O&M costs related to NNG upgrades) less costs proposed for recovery through the NGEP rider through approved NAS model to determine the contribution in aid of construction (i.e., the portion of remaining Project costs which projected revenues from customers anticipated to receive natural gas service as a result of the Project will not cover).

<u>Step 3</u>: The NAS model calculates the monthly new area surcharge amounts, by customer class, based on customer charge allocation in order to recover the calculated contribution in aid of construction over the proposed term of the NAS.

Step 4: Calculate per-therm NGEP Rider surcharge to be assessed to all MERC customers by dividing the proposed NGEP Rider Costs by the sales forecast approved in Docket No. G011/GR-13-617.

D. Amount of Revenue Deficiency and Proposed Allocation

Minn. Stat. § 216B.1638, subd. 2(b)(6) requires that a Petition for an NGEP Rider shall include the amount of the revenue deficiency, and how recovery of the revenue deficiency will be allocated among industrial, commercial, residential, and transport customers. As noted above, the statute defines the revenue deficiency as "the deficiency in funds that results when projected revenues from customers receiving natural gas service as the result of a natural gas extension project plus any contributions in aid of construction paid by these customers, fall short of the total revenue requirement of the natural gas extension project." With respect to the Esko Project, MERC calculated the "revenue deficiency" by first determining the difference between the total revenue requirement and the amount of attained revenue in accordance with MERC's approved New Area Surcharge model and tariffs. See MERC Tariff Sheet Nos. 9.14-9.17 and Exhibit C. To determine the amount proposed for recovery via the NGEP Rider, [TRADE

| TRADE SECRET DATA ENDS]. | |
|---|-------|
| MERC proposes to recover [TRADE SECRET DATA BEGINS TRA | 4DE |
| SECRET DATA ENDS] of the total costs of the Esko Project under the NGEP rider, which | |
| amounts to [TRADE SECRET DATA BEGINS TRADE SECRET DATA EN | DS]. |
| This is consistent with Minn. Stat. § 216B.1638, subd.3(c), which authorizes the Commission | on to |

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approve rider recover of up to "33 percent of costs of a natural gas extension project." In accordance with Minn. Stat. § 216B.1638, subd. 3(d), MERC's revenue deficiency calculation, as reflected in its approved New Area Surcharge model, includes the currently authorized rate of return, incremental income taxes, incremental property taxes, incremental depreciation expenses, and any incremental operation and maintenance costs, including a portion of the incremental O&M costs related to the NNG tap.3 In addition to MERC's capital investments to extend natural gas to the Esko Project area, which have been estimated at [TRADE SECRET DATA BEGINS... ... TRADE SECRET DATA ENDS], a tap from the NNG interstate pipeline to connect to this area is also necessary. The anticipated price of the NNG connection is [TRADE SECRET DATA BEGINS... ... TRADE SECRET DATA ENDS]. MERC proposes to include [TRADE SECRET DATA BEGINS... ... TRADE SECRET DATA ENDS] of the NNG project costs in the proposed rider and to recover the remainder of those costs as O&M through the NAS, amortized over the proposed twenty-five year term of the NAS. MERC also requests approval to apply a carrying charge at MERC's authorized shortterm cost of debt on the amortized NNG costs. As set forth in the NGEP Rider Statute, inclusion of incremental O&M costs such as the O&M expense related to installation of the NNG tap are recoverable through a rider.4

MERC is proposing to allocate recovery of the rider revenue deficiency across all MERC customers in all customer classes including industrial, commercial, residential, and transport customers, on a per-therm basis. Attachment C includes a calculation of the proposed per-therm charge:

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³ Minn. Stat. § 216B.1638, subd. 3 (d) ("The revenue deficiency from a natural gas extension project recoverable through a rider under this section must include the currently authorized rate of return, incremental income taxes, incremental property taxes, incremental depreciation expenses, and any incremental operation and maintenance costs."). The O&M costs included in MERC's calculation of the Project's revenue deficiency include the expense related to NNGs' installation of a tap to connect to the interstate pipeline.

⁴ "The revenue deficiency from a natural gas extension project recoverable through a rider under this section *must include* . . . any incremental operation and maintenance costs." Minn. Stat. § 216B.1638, subd. 3 (d) (emphasis added).

[TRADE SECRET DATA BEGINS...



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E. Proposed Method of Recovery

Minn. Stat. § 216B.1638, subd. 2(b)(7) requires that the Petition include the proposed method to be used to recover the revenue deficiency from each customer class, such as a flat fee, a volumetric charge, or another form of recovery. MERC proposes to recover the portion of the Esko Project costs to be recovered via the NGEP Rider through a per-therm charge, as shown above and in Exhibit C. Based on MERC's projected Project costs, including O&M costs related to installation of the NNG connection, and proposal to recover [TRADE SECRET DATA BEGINS... ... TRADE SECRET DATA ENDS] through the rider, MERC is projecting a per-therm charge for recovery of Esko Project costs of \$0.00106 per therm over a one-year period. The rider surcharge would commence on a service-rendered basis the first day of the month following Commission approval and would be subject to true-up following completion of the Project once the one-year surcharge is completed.

F. Proposed Termination Date

Minn. Stat. § 216B.1638, subd. 2(b)(8) requires that the Petition include the proposed termination date of the rider to recover the revenue deficiency. For the Esko Project costs, MERC proposes that the NGEP Rider terminate after one year. MERC has calculated a projected per-therm rider rate of \$0.00106 per therm for recovery of the proposed [TRADE SECRET DATA BEGINS... ...TRADE SECRET DATA ENDS] of costs as discussed above over the course of one year. Because the bill impact of the proposed rider would be relatively small pursuant to a one-year recovery period, MERC believes such a recovery period

G. Benefits to Existing Natural Gas Customers

Minn. Stat. § 216B.1638, subd. 2(b)(9) requires that the Petition include a description of the benefits to the public utility's existing natural gas customers that will accrue from the NGEP. The proposed Esko Project is anticipated to add approximately [TRADE SECRET DATA BEGINS... ... TRADE SECRET DATA ENDS] within the Esko Project area and also creates additional opportunities in the future to extend into surrounding areas as development in this region continues. The addition of these customers will increase the total number of customers across MERC's system to share in the overall cost of service. Further, because the Esko Township is a growing community, this Project will help to open up future growth opportunities to expand natural gas service to even more customers.

III. PROPOSED NEW AREA SURCHARGE FOR THE ESKO PROJECT

The Commission originally approved MERC's New Area Surcharge tariff by Order dated July 26, 2012, in Docket No. G007,011/M-11-1045. That Order required that any filing for a miscellaneous rate change for a specific New Area Surcharge project include, at a minimum:

- A. An updated surcharge tariff sheet and its related spreadsheets with and without the proposed surcharge for each new area surcharge area;
- B. Its workpapers showing all underlying assumptions concerning interest rates, costs, depreciation, demographics, rate structure, etc.;
- C. A surcharge rate for each customer class, even if no customers are anticipated for the class;

- D. The Company's proposed customer notice; and
- E. All pertinent contract demand entitlement change requests as soon as the required information is ascertained.

In Docket No G011/M-14-524, the Commission approved MERC's request to modify its New Area Surcharge tariffs to extend the maximum term of a New Area Surcharge from 15 to 30 years. In Docket No. G011/M-15-441, by Order dated July 28, 2015, the Commission required MERC to revise its NAS tariffs and model to exclude the conservation cost recovery charge ("CCRC") from the marginal distribution revenue stream and to incorporate the Company's existing 75-foot service extension allowance for residential service installation.

This filing for the Esko Project is MERC's fourth filing under the New Area Surcharge tariff approved by the Commission (concurrently with MERC's filing for approval of a Balaton Project New Area Surcharge). The New Area Surcharge enables natural gas service to be extended to an area that would generate insufficient revenues under the Company's present rates and service extension policy. This is accomplished by setting a surcharge at a level that will bring the Net Present Value of the project to approximately \$0 over the life of the Project. The required filing information is provided below:

A. Updated Surcharge Tariff Sheets

The proposed clean and redline tariff sheets reflecting the proposed Esko Project New Area Surcharge are included as Exhibit A to this filing. Exhibit A also includes proposed tariff amendments for implementation of the proposed NGEP Rider, as requested herein.

B. Workpapers Showing New Area Surcharge Assumptions

The proposed New Area Surcharge workpapers and assumptions are included as Exhibit C to this filing.

C. A Surcharge Rate for Each Customer Class

The following class surcharges are proposed for the Esko Project. MERC currently anticipates that the customer base in the Esko Project area will include Residential, Small C&I,

Large C&I, and Small Volume Interruptible ("SVI"). MERC is requesting that the Commission approve NAS rates for those four classes as well as for the Large Volume Interruptible ("LVI") class, as indicated in Exhibit A to this filing. While MERC is not currently projecting any customers taking service within the LVI customer class, economic conditions could drive a customer to switch from firm Commercial/Industrial service to Interruptible service and/or from SVI service to LVI service. The development that is anticipated in the Esko Project area would accommodate LVI customers and MERC is aware of potential customers who could potentially qualify for and move to LVI service in the future. The proposed rate for the LVI customer class is calculated using the same methodology as for other classes, although the model currently does not assume any customers will be taking service under MERC's LVI tariffs. In the event a LVI customer participates in the new area, all participants will benefit as the total Project costs financed through the NAS are paid down more quickly, resulting in the possibility the NAS will be terminated before the end of the 25 years. While MERC acknowledges that in its past NAS petitions the Commission has only approved NAS factors for those customers classes for which MERC projects customers, the Esko Project is unique compared to MERC's previous NAS filings because it is an extension to a new town that includes commercial and industrial customers rather than being a primarily residential development.

MERC has calculated these proposed surcharges based on the customer charge allocation, as MERC believes this approach results in the most fair and reasonable surcharges across the four customer classes for which MERC is requesting approval.

| Esko Project New Area Surcharges | | |
|----------------------------------|----------|--|
| Residential | \$24.18 | |
| Small Commercial and Industrial | \$45.81 | |
| Large Commercial and Industrial | \$114.53 | |
| Small Volume Interruptible | \$419.95 | |
| Large Volume Interruptible | \$470.85 | |

MERC's calculation of the proposed surcharge is reasonably designed to recover the portion of the cost of the extension that would be uneconomical to serve at tariffed rates and are not proposed to be recovered through the NGEP Rider authorized under Minn. Stat. § 216B.1638. The New Area Surcharge rates are set at a reasonable level that will ensure customers may reasonably make the economic decision to switch to natural gas service.

MERC proposes that the surcharges be in effect for a period not to exceed twenty-five years. If gas service and billing to the Esko area commences in November 2017, the surcharge would terminate in November 2042. MERC will terminate the surcharge when the projected revenue deficiency is satisfied or at the end of twenty-five years, whichever occurs first.

D. Proposed Customer Notices

A proposed customer notice that is consistent with the notices that have been approved for MERC's previous New Area Surcharges is attached as Exhibit D. Consistent with prior New Area Surcharge filings, MERC proposes to submit sample bills for the month of January in compliance after approval of the proposed New Area Surcharge. Additionally, MERC proposes to include a bill message for all MERC customers regarding the NGEP Rider on the first month the rider surcharge appears on customers' bills as follows:

Effective [DATE], a Natural Gas Extension Project Rider surcharge ("NGEP Surcharge") has been included on your bill for the Esko Natural Gas Extension Project. The NGEP Surcharge is a surcharge authorized under Minn. Stat. §216B.1638 and is intended to recover a portion of costs related to the construction of new infrastructure or upgrades to existing natural gas facilities necessary to serve currently unserved or inadequately served areas. Effective [DATE], the NGEP Surcharge rate for the Esko Project will be \$0.00106 per therm and will appear as a line item on your bill labeled "Natural Gas Extension Project — Esko."

E. Contract Demand Entitlement Change Requests

At this time, no demand entitlement changes are anticipated to be required because the demand needs of the Esko Project customers will be served off existing demand contracts. In

the event additional demand entitlements are required, MERC will include those in its demand entitlement filing.

F. Revenue Impacts

Additionally, the proposed tariff change will not affect the current level of MERC revenues. New Area Surcharge billings are not considered Operating Revenues. New Area Surcharge billings to customers will be recorded as balance sheet credits to an account receivable when the surcharge is approved. The portion of the New Area Surcharge billing related to interest will be credited to a non-operating income account.

G. Reporting Requirements

In its June 10, 2016, Order Approving New Area Surcharge and Requiring Compliance Filing in Docket No. G011/M-16-221, the Commission approved annual new area surcharge project reporting requirements on March 1 of each year and required that MERC report on all New Area Surcharge rider projects including:

- The number of customers divided by classes used to calculate the surcharge revenue and the retail margin revenue; and
- The actual surcharge and retail revenue received to date and projected surcharge revenue for the remaining term of the surcharge, and the actual capital costs and projected remaining capital costs for the project.

Upon approval, MERC will include the Esko Project in its annual reporting on New Area Surcharge projects.

The proposed New Area Surcharge is in the public interest. Because natural gas costs less than alternative fuels, customers will benefit from the additional fuel choice. Lower energy bills free money for investment and purchases in the area, spurring economic development. The NAS will ensure the project is affordable for customers wishing to switch to natural gas service.

IV. CONCLUSION

MERC respectfully requests approval for recovery of [TRADE SECRET DATA

BEGINS... TRADE SECRET DATA ENDS] of costs for the Esko Project through a Natural Gas Extension Rider, for approval of a New Area Surcharge for the proposed Esko Project, and for approval to amortize costs associated with interstate pipeline upgrades necessary for the Project over the twenty-five year term of the new area surcharge, with carrying charges at MERC's currently authorized short-term cost of debt.

If additional information is required, please contact Amber S. Lee at (651) 322-8965 or Kristin M. Stastny at (612) 977-8656.

DATED: August 2, 2016

Respectfully submitted,

BRIGGS AND MORGAN, P.A.

By /s/ Kristin M. Stastny
Kristin M. Stastny
2200 IDS Center
80 South 8th Street
Minneapolis, MN 55402
Telephone: (612) 977-8656
KStastny@Briggs.com

Attorney for Minnesota Energy Resources Corporation

Exhibit A Clean Tariff Sheets

3. NEW AREA SURCHARGE RIDER (Continued)

- 15) Revenue Excess or (Deficiency): Revenue excess or deficiency is the difference between the Total Revenue Requirement (Column 13) and the amount of Retail Revenue (Column 14). Excess occurs when the Total Revenue Requirement in a given year is less than the total Retail Revenue generated. Deficiency occurs when the Total Revenue Requirement in a given year is more than the total Retail Revenue generated.
- 16) Present Value of Cash Flows: The cash flows that produce either revenue excesses or deficiencies (Column 15) are discounted to a present value using a discount rate equal to the cost of long-term debt established in the most recent general rate proceeding.

If the sum of the present value calculations over the life of the project is zero, or as close to zero as possible, the model demonstrates that the project is "self supporting." That is, the customer CIAC surcharge is the proper amount of customer contributed capital necessary to support the project at the projected (or actual) level of retail revenues.

Surcharge Rider Rates:

A surcharge as designated will be included in the monthly bills of the following Minnesota geographical areas:

| Ely Lake Project 20 Year New Area Surcharge Expires 2034 | |
|--|---------|
| Residential | \$25.45 |
| Existing Small Commercial | \$25.45 |

| Detroit Lakes—Long Lake Project 15 Year New Area Surcharge Expires 2030 | |
|---|---------|
| Residential | \$19.16 |
| Small Commercial/Interruptible | \$36.30 |

| Fayal Township—Long Lake Project 20 Year New Area Surcharge Expires 2036 | |
|--|---------|
| Residential | \$21.16 |
| Small Commercial/Industrial | \$40.09 |

| Esko Project 25 Year New Area Surcharge Expires 2042 | |
|---|----------|
| Residential | \$24.18 |
| Small Commercial/Industrial | \$45.81 |
| Large Commercial/Industrial | \$114.53 |
| Small Volume Interruptible | \$419.95 |
| Large Volume Interruptible | \$470.85 |

Issued By: Theodore Eidukas

VP – Regulatory Affairs

Submittal Date: August 2, 2016

*Effective with bills issued on and after this date.

*Effective Date: Upon Commission Approval Proposed Effective Date: Upon Commission Approval

3. <u>NEW AREA SURCHARGE RIDER</u> (Continued)

Surcharge Rider Rates (continued):

A surcharge as designated will be included in the monthly bills of the following Minnesota geographical areas:

| Balaton Project 25 Year New Area Surcharge | | |
|--|----------|--|
| Expires 2042 | | |
| Residential | \$25.14 | |
| Small Commercial/Industrial | \$47.64 | |
| Large Commercial/Industrial | \$119.10 | |
| Small Volume Interruptible | \$419.34 | |
| Large Volume Interruptible | \$470.17 | |

Issued By: Theodore Eidukas *Effective Date: Upon Commission Approval VP – Regulatory Affairs Proposed Effective Date: Upon Commission Approval

Submittal Date: August 2, 2016

*Effective with bills issued on and after this date.

3. NATURAL GAS EXTENSION PROJECT RIDER

Applicability:

Applicable to bill of all Minnesota Energy Resources' natural gas customers including all Residential, Commercial, Industrial, Interruptible, Joint Service, and Transport customers.

Rider:

The Natural Gas Extension Project (NGEP) Rider is designed to recover up to 33 percent of the costs of construction of new infrastructure and/or upgrades to existing natural gas facilities necessary to serve currently unserved or inadequately served areas. Upon approval by the MPUC of an NGEP project for Rider recovery, there shall be included on each customer's monthly bill an NGEP Surcharge relevant to that Project, which shall be calculated by multiplying the monthly applicable billing therms by the approved NGEP Surcharge. The term for recovery of NGEP project costs shall be determined upon approval of the NGEP Project.

Approved NGEP Rider Surcharges and Recovery Periods:

| NGEP Project | Surcharge | Recovery Period |
|-----------------|-----------------|-----------------|
| Esko Project | \$0.00106/therm | 1 year |
| Balaton Project | \$0.00071/therm | 1 year |

Issued By: Theodore Eidukas

VP – Regulatory Affairs

Submittal Date: August 2, 2016

*Effective with bills issued on and after this date.

Exhibit A Redline Tariff Sheets

3. NEW AREA SURCHARGE RIDER (Continued)

- 15) Revenue Excess or (Deficiency): Revenue excess or deficiency is the difference between the Total Revenue Requirement (Column 13) and the amount of Retail Revenue (Column 14). Excess occurs when the Total Revenue Requirement in a given year is less than the total Retail Revenue generated. Deficiency occurs when the Total Revenue Requirement in a given year is more than the total Retail Revenue generated.
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If the sum of the present value calculations over the life of the project is zero, or as close to zero as possible, the model demonstrates that the project is "self supporting." That is, the customer CIAC surcharge is the proper amount of customer contributed capital necessary to support the project at the projected (or actual) level of retail revenues.

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|--|---------|
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| Detroit Lakes—Long Lake Project 15 Year New Area Surcharge Expires 2030 | |
|---|---------|
| Residential | \$19.16 |
| Small Commercial/Interruptible | \$36.30 |

| 20 Year New A | Long Lake Project Area Surcharge es 2036 |
|-----------------------------|--|
| Residential | \$21.16 |
| Small Commercial/Industrial | \$40.09 |

| Esko Project | 25 Year New Area Surcharge Expires 2042 |
|-----------------------------|--|
| Residential | <u>\$24.18</u> |
| Small Commercial/Industrial | <u>\$45.81</u> |
| Large Commercial/Industrial | <u>\$114.53</u> |
| Small Volume Interruptible | <u>\$419.95</u> |
| Large Volume Interruptible | \$470.85 |

Issued By: Theodore Eidukas

*Effective Date: **Upon Commission Approval** VP – Regulatory Affairs Proposed Effective Date: June 20, 2016 Upon Commission Approval

Submittal Date: August 2, 2016

*Effective with bills issued on and after this date.

NEW AREA SURCHARGE RIDER (Continued)

Surcharge Rider Rates (continued):

A surcharge as designated will be included in the monthly bills of the following Minnesota geographical areas:

| Balaton Project 25 Year | ar New Area Surcharge |
|-----------------------------------|-----------------------|
| <u>Expire</u> | <u>es 2042</u> |
| Residential | <u>\$25.14</u> |
| Small Commercial/Industrial | <u>\$47.64</u> |
| Large Commercial/Industrial | <u>\$119.10</u> |
| Small Volume Interruptible | <u>\$419.34</u> |
| <u>Large Volume Interruptible</u> | <u>\$470.17</u> |

Issued By: Theodore Eidukas *Effective Date: Upon Commission Approval VP – Regulatory Affairs Proposed Effective Date: Upon Commission Approval

Submittal Date: August 2, 2016

NATURAL GAS EXTENSION PROJECT RIDER

Applicability:

Applicable to bill of all Minnesota Energy Resources' natural gas customers including all Residential, Commercial, Industrial, Interruptible, Joint Service, and Transport customers.

The Natural Gas Extension Project (NGEP) Rider is designed to recover up to 33 percent of the costs of construction of new infrastructure and/or upgrades to existing natural gas facilities necessary to serve currently unserved or inadequately served areas. Upon approval by the MPUC of an NGEP project for Rider recovery, there shall be included on each customer's monthly bill an NGEP Surcharge relevant to that Project, which shall be calculated by multiplying the monthly applicable billing therms by the approved NGEP Surcharge. The term for recovery of NGEP project costs shall be determined upon approval of the NGEP Project.

Approved NGEP Rider Surcharges and Recovery Periods:

| NGEP Project | Surcharge | Recovery Period |
|-----------------|------------------------|-----------------|
| Esko Project | <u>\$0.00106/therm</u> | 1 year |
| Balaton Project | <u>\$0.00071/therm</u> | 1 year |

Issued By: Theodore Eidukas *Effective Date: Upon Commission Approval VP – Regulatory Affairs Proposed Effective Date: Upon Commission Approval

Submittal Date: August 2, 2016

Minnesota Energy Resources Corporation
Docket No. G011/M-16-___
Exhibit B-PUBLIC
Esko Project Maps

PUBLIC DOCUMENT—TRADE SECRET DATA HAS BEEN EXCISED

Exhibit B is Trade Secret in its Entirety.

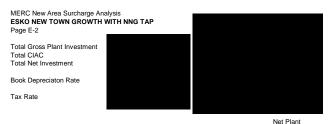
The nonpublic version of this document contains information that is not generally known to, and not readily ascertainable by, vendors and competitors of MERC, who could obtain economic value from their disclosure. MERC maintains this information as trade secret. Accordingly, the nonpublic version of the New Area Surcharge filing contains data that qualifies as "Trade Secret Data" pursuant to Minnesota Statutes Section 13.37, Subdivision 1(b).

[TRADE SECRET DATA BEGINS.....

Minnesota Energy Resources New Area Surcharge Analysis ESKO NEW TOWN GROWTH WITH NNG TAP

| | | | Net Pla | nt | | AD | т | | Tradition | al Revenue Re | quirements | | | | |
|----------------|--------------|---------------------------|----------------------------|-------------------------|----------------------|--------------|----------------------|-------------------|-----------------|------------------------------------|-----------------|-----------------------|-------------------|------------------|---------------------|
| - | | 0 -: | Accumulated | N . =: | | | | | | | | - | 5 | Revenue | DV 15 : |
| Time Period | Year | Gross Plant Investment | Deprecreciation Reserve | Net Plant In Service | Average Net Plant | Average ADIT | Average Rate Base | Allowed Return | Book Deprec. | O&M Expense | Property Tax | Total Rev. Requir. | Retail Revenue | Excess (Deficy.) | PV of Cash Flows |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) |
| | 2212 | | | | | | | | | | | | | | |
| 0 1 | 2016 2017 | | | | | | | | | | | | | | |
| 2 | 2017 | | | | | | | | | | | | | | |
| 3 | 2019 | | | | | | | | | | | | | | |
| 4 | 2020 | | | | | | | | | | | | | | |
| 5 | 2021 | | | | | | | | | | | | | | |
| 6 | 2022 | | | | | | | | | | | | | | |
| 7 8 | 2023 2024 | | | | | | | | | | | | | | |
| 9 | 2024 | | | | | | | | | | | | | | |
| 10 | 2026 | | | | | | | | | | | | | | |
| 11 | 2027 | | | | | | | | | | | | | | |
| 12 | 2028 | | | | | | | | | | | | | | |
| 13 | 2029 | | | | | | | | | | | | | | |
| 14 | 2030 | | | | | | | | | | | | | | |
| 15 16 | 2031 2032 | | | | | | | | | | | | | | |
| 17 | 2032 | | | | | | | | | | | | | | |
| 18 | 2034 | | | | | | | | | | | | | | |
| 19 | 2035 | | | | | | | | | | | | | | |
| 20 | 2036 | | | | | | | | | | | | | | |
| 21 | 2037 | | | | | | | | | | | | | | |
| 22 | 2038 | | | | | | | | | | | | | | |
| 23 24 | 2039 | | | | | | | | | | | | | | |
| 24 25 | 2040 2041 | | | | | | | | | | | | | | |
| 26 | 2042 | | | | | | | | | | | | | | |
| 27 | 2043 | | | | | | | | | | | | | | |
| 28 | 2044 | | | | | | | | | | | | | | |
| 29 | 2045 | | | | | | | | | | | | | | |
| 30 | 2046 | | | | | | | | | | | | | | |
| 31 32 | 2047 2048 | | | | | | | | | | | | | | |
| 33 | 2048 | | | | | | | | | | | | | | |
| 34 | 2050 | | | | | | | | | | | | | | |
| 35 | 2051 | | | | | | | | | | | | | | |
| 36 | 2052 | | | | | | | | | | | | | | |
| 37 | 2053 | | | | | | | | | | | | | | |
| 38 | 2054 | | | | | | | | | | | | | | |
| 39 40 | 2055 2056 | | | | | | | | | | | | | | |
| 40 | 2056 | | | | | | | | | | | | | | |
| 42 | 2058 | | | | | | | | | | | | | | |
| 43 | 2059 | | | | | | | | | | | | | | |
| 44 | 2060 | | | | | | | | | | | | | | |
| 45 | 2061 | | | | | | | | | | | | | | |
| 46 | 2062 | | | | | | | | | | | | | | |
| 47 48 | 2063 2064 | | | | | | | | | | | | | | |
| 40 | 2004 | | | | | | | | | | | | | | |
| Reference | | Page E-2 | Page E-2 | Page E-2 | Page E-2 | Page E-2 | Calculation | Page E-10 | Page E-2 | Page E-9 x Rate per Customer | Page E-2 | Calculation | Page E-9 | Calculation | Calculation |

[TRADE SECRET DATA BEGINS...



| | Net Plant | | ADIT - Property | | ADIT - S | Surcharge F | Revenues | Total ADIT | _ |
|--------------------------|-------------|-------------------------|--|--------------------------------|----------|-------------|------------------|---------------|---------------|
| Gross Plant Depreciation | Accum. Res. | Net Plant Avg Net Plant | Tax Rates Tax Deprec. Cum Tax Deprec. Book-Tax Deprec. Acc. Def. Tax Avg. ADIT | Annual Surcharge Revenue | CIAC | Tax | Cum Tax Avg ADIT | | Prope Taxe |
| 6 | | | | | | | | | |
| 18 19 | | | | | | | | | |
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| 023 | | | | | | | | | |
| 024 | | | | | | | | | |
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| 064 | | | | | | | | | |
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Minnesota Energy Resources Corporation

Docket No. G-011/M-16Exhibit C
Esko Project Workpapers

[TRADE SECRET DATA BEGINS.....

MERC New Area Surcharge Analysis
ESKO NEW TOWN GROWTH WITH NNG TAP
Page E-3

All Formulas



| | | | | Net Plant | | | | | ADIT - Property |
|----------|--------------|-------|--------------|------------|-------|-----------|-------|---------|-----------------|
| | _ | Gross | | | Net | Avg | Tax | Tax | Cum. Tax |
| | Year | Plant | Depreciation | Acum. Res. | Plant | Net Plant | Rates | Deprec. | Deprec. |
| 0 | 2016 | | | | | | | | |
| 1 | 2017 | | | | | | | | |
| 2 | 2018 | | | | | | | | |
| 3 | 2019 | | | | | | | | |
| 4 5 | 2020 2021 | | | | | | | | |
| 6 | 2021 | | | | | | | | |
| 7 | 2022 | | | | | | | | |
| 8 | 2024 | | | | | | | | |
| 9 | 2025 | | | | | | | | |
| 10 | 2026 | | | | | | | | |
| 11 | 2027 | | | | | | | | |
| 12 | 2028 | | | | | | | | |
| 13 | 2029 | | | | | | | | |
| 14 | 2030 | | | | | | | | |
| 15 | 2031 | | | | | | | | |
| 16 | 2032 | | | | | | | | |
| 17 | 2033 | | | | | | | | |
| 18 19 | 2034 2035 | | | | | | | | |
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| 22 | 2038 | | | | | | | | |
| 23 | 2039 | | | | | | | | |
| 24 | 2040 | | | | | | | | |
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| 38 | 2054 | | | | | | | | |
| 39 | 2055 | | | | | | | | |
| 40 | 2056 | | | | | | | | |
| 41 | 2057 | | | | | | | | |
| 42 43 | 2058 2059 | | | | | | | | |
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| 46 | 2062 | | | | | | | | |
| 47 | 2063 | | | | | | | | |
| 48 | 2064 | | | | | | | | |
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Minnesota Energy Resources Corporation
Docket No. G-011/M-16-__
Exhibit C
Esko Project Workpapers

[TRADE SECRET DATA BEGINS.....

MERC New Area Surcharge Analysis

ESKO NEW TOWN GROWTH WITH NNG TAP

Page E-4

| | | | | Net Plant | | | | | ADIT - Prop |
|----------|--------------|-------|--------------|-------------|-------|-----------|-------|---------|-------------|
| | _ | Gross | | | Net | Avg | Tax | Tax | Cum Tax |
| | Year | Plant | Depreciation | Accum. Res. | Plant | Net Plant | Rates | Deprec. | Deprec. |
| 0 | 2016 | | | | | | | | |
| 1 | 2017 | | | | | | | | |
| 2 | 2018 | | | | | | | | |
| 3 | 2019 | | | | | | | | |
| 4 | 2020 | | | | | | | | |
| 5 | 2021 | | | | | | | | |
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| 42 | 2058 | | | | | | | | |
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| 45 | 2061 | | | | | | | | |
| 46 | 2062 | | | | | | | | |
| 47 | 2063 | | | | | | | | |
| 48 | 2064 | | | | | | | | |
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[TRADE SECRET DATA BEGINS.....



| Year Gross Net Avg Tax Tax Cum* 0 2016 1 2017 2 2018 3 2019 4 2020 4 2020 4 2021 6 2022 7 2023 8 2024 9 2025 10 2026 11 2027 12 2028 13 2029 14 2030 15 2031 16 2032 17 2033 18 2034 19 2035 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 20 20 20 20 20 20 20 20 20 20 20 20 20 | | | | Net Plant | | ADIT - | | | |
|--|-------|-----|------------------|-------------|-------|-----------|-------|---------|-----------------------|
| 2016 1 2017 2 2018 3 2019 4 2020 5 2021 6 2022 7 2023 8 2024 9 2025 10 2026 11 2027 12 2028 13 2029 14 2030 15 2031 16 2032 17 2033 18 2034 19 2035 20 2036 21 2037 22 2038 23 2039 24 2040 25 2041 26 2042 27 2043 28 2044 29 2045 30 2046 31 2047 32 2048 33 2049 34 2050 35 2041 36 2052 37 2043 38 2044 39 2045 30 2046 31 2047 32 2048 33 2049 34 2050 35 2051 36 2052 37 2053 38 2054 49 2055 40 2056 41 2056 41 2057 42 2058 43 2059 44 2060 45 2061 | | | | | | | | | ADIT - Pro Cum Tax |
| 1 2017 2 2018 3 2019 4 2020 5 2021 6 2022 7 2023 8 2024 9 2025 10 2026 11 2027 12 2028 13 2029 14 2030 15 2031 16 2032 17 2033 18 2034 19 2035 20 2036 21 2037 22 2038 23 2039 24 2040 25 2041 26 2042 27 2043 28 2044 29 2045 30 2046 31 2047 32 2048 33 2049 34 2050 35 2051 36 2052 37 2053 38 2054 39 2055 40 2056 41 2057 42 2058 43 2059 44 2060 45 2061 | Year | PI | ant Depreciation | Accum. Res. | Plant | Net Plant | Rates | Deprec. | Deprec. |
| 1 2017 2 2018 3 2019 4 2020 5 2021 6 2022 7 2023 8 2024 9 2025 10 2026 11 2027 12 2028 13 2029 14 2030 15 2031 16 2032 17 2033 18 2034 19 2035 20 2038 22 2038 23 2039 24 2040 25 2041 26 2037 22 2038 23 2039 24 2040 25 2041 26 2042 27 2043 28 2044 29 2045 31 2047 28 2044 29 2045 31 2047 28 2044 29 2045 31 2047 32 2043 33 2049 34 2050 35 2051 36 2052 37 2053 38 2054 39 2055 40 2056 41 2057 42 2058 43 2059 44 2060 45 2059 44 2060 45 2061 46 2062 | 0 20 | 016 | | | | | | | |
| 2 2 2018 3 2019 4 2020 5 2021 6 2022 7 2023 8 2024 9 2025 10 2026 111 2027 12 2028 13 2029 14 2030 15 2031 16 2032 17 2033 18 2034 19 2035 20 2036 21 2037 22 2038 23 2039 24 2040 25 2041 26 2042 27 2043 28 2044 29 2045 30 2046 31 2047 32 2048 33 2049 34 2050 35 2051 36 2052 37 2053 38 2049 34 2050 35 2051 36 2052 37 2053 38 2054 39 2055 40 2056 41 2057 42 2058 43 2059 44 2060 45 2061 | | | | | | | | | |
| 3 | | | | | | | | | |
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| 166 | | 031 | | | | | | | |
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[TRADE SECRET DATA BEGINS..... MERC New Area Surcharge Analysis ESKO NEW TOWN GROWTH WITH NNG TAP Page E-6

| | | | | Net Plant | | | | | ADIT - Prop |
|----------|--------------|-------|--------------|-------------|-------|-----------|-------|---------|-------------|
| | _ | Gross | | | Net | Avg | Tax | Tax | Cum Tax |
| | Year | Plant | Depreciation | Accum. Res. | Plant | Net Plant | Rates | Deprec. | Deprec. |
| | | | | | | | | | |
| 0 | 2016 | | | | | | | | |
| 1 | 2017 | | | | | | | | |
| 2 | 2018 | | | | | | | | |
| 3 | 2019 | | | | | | | | |
| 4 | 2020 | | | | | | | | |
| 5 6 | 2021 2022 | | | | | | | | |
| 7 | 2022 | | | | | | | | |
| 8 | 2023 | | | | | | | | |
| 9 | 2024 | | | | | | | | |
| 10 | 2025 | | | | | | | | |
| 11 | 2027 | | | | | | | | |
| 12 | 2028 | | | | | | | | |
| 13 | 2029 | | | | | | | | |
| 14 | 2030 | | | | | | | | |
| 15 | 2031 | | | | | | | | |
| 16 | 2032 | | | | | | | | |
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| 18 | 2034 | | | | | | | | |
| 19 | 2035 | | | | | | | | |
| 20 | 2036 | | | | | | | | |
| 21 | 2037 | | | | | | | | |
| 22 | 2038 | | | | | | | | |
| 23 | 2039 | | | | | | | | |
| 24 | 2040 | | | | | | | | |
| 25 | 2041 | | | | | | | | |
| 26 | 2042 | | | | | | | | |
| 27 | 2043 | | | | | | | | |
| 28 | 2044 | | | | | | | | |
| 29 | 2045 | | | | | | | | |
| 30 31 | 2046 2047 | | | | | | | | |
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| 33 | 2049 | | | | | | | | |
| 34 | 2050 | | | | | | | | |
| 35 | 2051 | | | | | | | | |
| 36 | 2052 | | | | | | | | |
| 37 | 2053 | | | | | | | | |
| 38 | 2054 | | | | | | | | |
| 39 | 2055 | | | | | | | | |
| 40 | 2056 | | | | | | | | |
| 41 | 2057 | | | | | | | | |
| 42 | 2058 | | | | | | | | |
| 43 | 2059 | | | | | | | | |
| 44 | 2060 | | | | | | | | |
| 45 | 2061 | | | | | | | | |
| 46 | 2062 | | | | | | | | |
| 47 | 2063 | | | | | | | | |
| 48 | 2064 | | | | | | | | |
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ADIT - Prop

[TRADE SECRET DATA BEGINS.....



| | _ | | | 140t i idilt | | | | | ABIT TTOP |
|----------|--------------|-------|--------------|--------------|-------|-----------|-------|---------|-----------|
| | | Gross | | | Net | Avg | Tax | Tax | Cum Tax |
| | Year | Plant | Depreciation | Accum. Res. | Plant | Net Plant | Rates | Deprec. | Deprec. |
| 0 | 2040 | | | | | | | | |
| 0 | 2016 2017 | | | | | | | | |
| 1 2 | 2017 | | | | | | | | |
| | | | | | | | | | |
| 3 | 2019 | | | | | | | | |
| 4 | 2020 | | | | | | | | |
| 5 | 2021 | | | | | | | | |
| 6 | 2022 | | | | | | | | |
| 7 | 2023 | | | | | | | | |
| 8 9 | 2024 | | | | | | | | |
| | 2025 | | | | | | | | |
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| 14 | 2030 | | | | | | | | |
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| 18 | 2034 | | | | | | | | |
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| 35 | 2051 | | | | | | | | |
| 36 | 2052 | | | | | | | | |
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| 38 | 2054 | | | | | | | | |
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| 43 | 2059 | | | | | | | | |
| 44 | 2060 | | | | | | | | |
| 45 | 2061 | | | | | | | | |
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| 47 | 2063 | | | | | | | | |
| 48 | 2064 | | | | | | | | |
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Net Plant

[TRADE SECRET DATA BEGINS.....



| | | | | Net Plant | | | | | ADIT - Prop |
|----|------|-------|--------------|-------------|-------|-----------|-------|---------|-------------|
| | _ | Gross | | | Net | Avg | Tax | Tax | Cum Tax |
| | Year | Plant | Depreciation | Accum. Res. | Plant | Net Plant | Rates | Deprec. | Deprec. |
| | | | • | | | | | • | • |
| 0 | 2016 | | | | | | | | |
| 1 | 2017 | | | | | | | | |
| 2 | 2018 | | | | | | | | |
| 3 | 2019 | | | | | | | | |
| 4 | 2020 | | | | | | | | |
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| 42 | 2058 | | | | | | | | |
| 43 | 2059 | | | | | | | | |
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| 46 | 2062 | | | | | | | | |
| 47 | 2063 | | | | | | | | |
| 48 | 2064 | | | | | | | | |
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[TRADE SECRET DATA BEGINS....

ESKO NEW TOWN GROWTH WITH NNG TAP

| Retail Sales and Surcharge | | | | | | |
|--|--|--------------------------|---|---|--|--|
| Avers Custor Year 0 2016 | Residential Reside | Commercia-Small Morthy | Commercial - Large Average Armal Volumetric Base Armal Surbarge Surcharge Troughput Margh. (Customer (Customer Revenue) Per Recovery Customer Customer Revenue Customer Revenue) | Small Volume Interruptible Annual Rase Annual Rase Annual Ratal Survivange Customers Throughput Marger! Charge! Revenue For Recovery Customers Customer Unit Customer Customer Customer Customer Customer | Large Volume Interruptible Average Annual Average Annual Volumetro Annual Base Annual Retail Customers Throughput/ Margin / Unit Customers Revenue Customers Customers Revenue Customers Customers Customers Revenue Customers Customers Customers Revenue Customers Custo | Summary Total Total Retail Customers Revenue Surcharge Surcharge Recovery Surcharge Recovery Recovery |
| 1 2017 2 2018 3 2019 4 2020 5 2021 6 2022 | | | | | | |
| 7 2023 8 2024 9 2025 10 2026 11 2027 12 2028 | | | | | | |
| 13 2029 14 2030 15 2031 16 2032 17 2033 | | | | | | |
| 18 2034 19 2035 20 2036 21 2037 22 2038 23 2039 | | | | | | |
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| 29 2045 30 2046 31 2047 32 2048 33 2049 34 2050 | | | | | | |
| 35 2051 36 2052 37 2053 38 2054 39 2055 | | | | | | |
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| 46 2062 47 2063 48 2064 | | | | | | |
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[TRADE SECRET DATA BEGINS...

MERC New Area Surcharge Analysis **ESKO NEW TOWN GROWTH WITH NNG TAP**Page E-10

All Formulas

Minnesota Energy Resources Corporation Docket No. G-011/M-16-___ Exhibit C Esko Project Workpapers

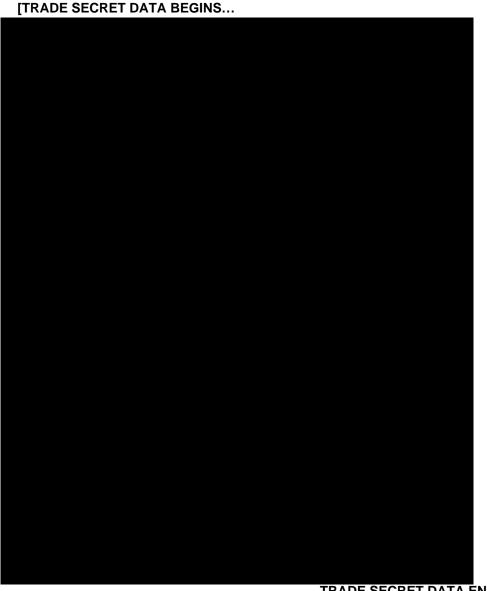


MERC New Area Surcharge Analysis
ESKO NEW TOWN GROWTH WITH NNG TAP

Minnesota Energy Resources Corporation
Docket No. G-011/M-16-___
Exhibit C

Esko Project Workpapers

All Formulas



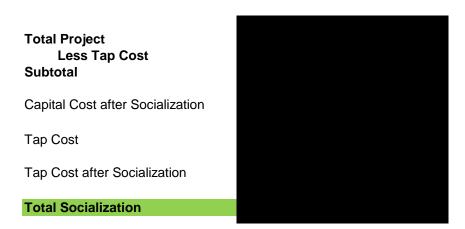
...TRADE SECRET DATA ENDS]

[TRADE SECRET DATA BEGINS...

ESKO NEW TOWN GROWTH WITH NNG TAP

Minnesota Energy Resources Corporation
Docket No. G-011/M-16-____
Exhibit C
Esko Project Workpapers





PUBLIC DOCUMENT--TRADE SECRET DATA HAS BEEN EXCISED [TRADE SECRET DATA BEGINS...

Esko Tap Cost Amortization Schedule

Minnesota Energy Resources Corporation Docket No. G-011/M-16-_

Exhibit C

Esko Project Workpapers

Tap Cost:

Beg Balance Annual **Balance** (excl Year (excl carry cost) Amortization carry Cost)

Annual Carry Cost

Annual **0&M** Expense (Amortizatio n and Carry Cost)



Annual Carry cost is 2.3487%

PUBLIC DOCUMENT--TRADE SECRET DATA HAS BEEN EXCISED [TRADE SECRET DATA BEGINS..

Minnesota Energy Resources Corporation
Docket No. G-011/M-16-____
Exhibit C
Esko Project Workpapers

NGEP Rider Calculation

Total Costs Proposed for Recovery in NGEP Rider

Sales Forecast approved in GR-13-617

Rider Calculation



...TRADE SECRET DATA ENDS]

IMPORTANT INFORMATION ABOUT YOUR NATURAL GAS RATES

For Customers Served in the Esko Township Project Area

An Explanation of Your Natural Gas Rates

On [DATE], the Minnesota Public Utilities Commission (MPUC) approved a New Area Surcharge for Minnesota Energy Resources Corporation (MERC) customers served in the Esko Township Project Area.

A monthly New Area Surcharge has been approved by the Commission as follows:

| Esko Project New | Area Surcharges |
|---------------------------------|-----------------|
| Residential | \$24.18 |
| Small Commercial and Industrial | \$45.81 |
| Large Commercial and Industrial | \$114.53 |
| Small Volume Interruptible | \$419.95 |
| Large Volume Interruptible | \$470.85 |

This is the surcharge amount needed to recover the cost of the extension within 25 years after recovery of a portion of the Project costs through a Natural Gas Extension Project Rider under Minn. Stat. § 216B.1638. The surcharge will appear as a line item on your monthly bill and is charged in addition to the regular monthly bill for gas service. Attached for reference are sample bills for the month of January based on average residential and average small commercial customer usage, showing the new area surcharge as a separate line item.

The surcharge will be in effect until the cost to bring natural gas service to your area has been recovered or a maximum of 25 years, whichever occurs first. You will be notified of any change to the New Area Surcharge, including termination of the New Area Surcharge.

The annual cost of the surcharge is as follows:

| Residential | \$290.16 |
|---------------------------------|------------|
| Small Commercial and Industrial | \$549.72 |
| Large Commercial and Industrial | \$1374.36 |
| Small Volume Interruptible | \$5,039.40 |
| Large Volume Interruptible | \$5,650.20 |

The total over the 25-year term of the surcharge is as follows:

| Residential \$7,254 |
|---------------------|
|---------------------|

Minnesota Energy Resources Corporation Docket No. G-011/M-16-___ Exhibit D Proposed Customer Notice

| Small Commercial and Industrial | \$13,743 |
|---------------------------------|-----------|
| Large Commercial and Industrial | \$34,359 |
| Small Volume Interruptible | \$125,985 |
| Large Volume Interruptible | \$141,255 |

We thank you for your interest in becoming our customer and utilizing natural gas. We look forward to providing you safe and reliable natural gas service. If you have questions, comments or would like more information, you are invited to contact customer service at 1-800-889-9508.

In the Matter of the Petition of Minnesota Energy Resources Corporation for Approval for Recovery of Natural Gas Extension Project Costs through a Rider and for Approval of a New Area Surcharge for the Esko Project

| Docket No. | G-011/M-16- | |
|------------|-------------------|--|
| DOCKELINO. | G-0 1 1/1VI- 1 O- | |

CERTIFICATE OF SERVICE

I, Kristin M. Stastny, hereby certify that on the 2nd of August, 2016, on behalf of Minnesota Energy Resources Corporation (MERC), I electronically filed a true and correct copy of the enclosed Initial Petition on 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 2nd day of August, 2016.

/s/ Kristin M. Stastny
Kristin M. Stastny

| First Name | Last Name | Email | Company Name | Address | Delivery Method | View Trade Secret | Service List Name | |
|------------|-----------|-------------------------------------|---|---|--------------------|-------------------|---|--|
| Michael | Ahern | ahern.michael@dorsey.co m | Dorsey & Whitney, LLP | 50 S 6th St Ste 1500 Minneapolis, MN 554021498 | Electronic Service | No | GEN_SL_Minnesota Energy Resources Corporation_General Service List | |
| Julia | Anderson | Julia.Anderson@ag.state.m n.us | Office of the Attorney General-DOC | 1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134 | Electronic Service | No | GEN_SL_Minnesota Energy Resources Corporation_General Service List | |
| Seth | DeMerritt | ssdemerritt@integrysgroup.com | MERC (Holding) | 700 North Adams P.O. Box 19001 Green Bay, WI 543079001 | Electronic Service | No | GEN_SL_Minnesota Energy Resources Corporation_General Service List | |
| Sharon | Ferguson | sharon.ferguson@state.mn .us | Department of Commerce | 85 7th Place E Ste 500 Saint Paul, MN 551012198 | Electronic Service | No | GEN_SL_Minnesota Energy Resources Corporation_General Service List | |
| Daryll | Fuentes | dfuentes@usg.com | USG Corporation | 550 W Adams St Electronic Service Chicago, IL 60661 | | No | GEN_SL_Minnesota Energy Resources Corporation_General Service List | |
| Amber | Lee | ASLee@minnesotaenergyr esources.com | Minnesota Energy Resources Corporation | 2665 145th St W Rosemount, MN 55068 | Electronic Service | No | GEN_SL_Minnesota Energy Resources Corporation_General Service List | |
| John | Lindell | agorud.ecf@ag.state.mn.us | Office of the Attorney General-RUD | 1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130 | Electronic Service | No | GEN_SL_Minnesota Energy Resources Corporation_General Service List | |
| Brian | Meloy | brian.meloy@stinson.com | Stinson,Leonard, Street LLP | 150 S 5th St Ste 2300 Minneapolis, MN 55402 | Electronic Service | No | GEN_SL_Minnesota Energy Resources Corporation_General Service List | |
| Andrew | Moratzka | andrew.moratzka@stoel.co m | Stoel Rives LLP | 33 South Sixth St Ste 4200 Minneapolis, MN 55402 | Electronic Service | No | GEN_SL_Minnesota Energy Resources Corporation_General Service List | |
| Colleen | Sipiorski | ctsipiorski@integrysgroup.c om | Minnesota Energy Resources Corporation | 700 North Adams Street Green Bay, WI 54307 | Electronic Service | No | GEN_SL_Minnesota Energy Resources Corporation_General Service List | |
| Kristin | Stastny | kstastny@briggs.com | Briggs and Morgan, P.A. | 2200 IDS Center 80 South 8th Street Minneapolis, MN 55402 | Electronic Service | No | GEN_SL_Minnesota Energy Resources Corporation_General Service List | |

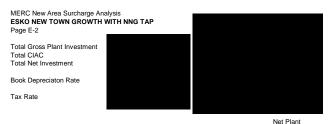
| First Name | Last Name | Email | Company Name | Address | Delivery Method | View Trade Secret | Service List Name |
|------------|-----------|-----------------------|-----------------------------|---|--------------------|-------------------|---|
| Eric | Swanson | eswanson@winthrop.com | Winthrop Weinstine | 225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629 | Electronic Service | | GEN_SL_Minnesota Energy Resources Corporation_General Service List |
| Daniel P | Wolf | dan.wolf@state.mn.us | Public Utilities Commission | 121 7th Place East Suite 350 St. Paul, MN 551012147 | Electronic Service | | GEN_SL_Minnesota Energy Resources Corporation_General Service List |

[TRADE SECRET DATA BEGINS.....

Minnesota Energy Resources New Area Surcharge Analysis ESKO NEW TOWN GROWTH WITH NNG TAP

| | | | Net Plant | | | AD | т | | Traditional Revenue Requirements | | | | | | |
|----------------|--------------|---------------------------|----------------------------|-------------------------|----------------------|--------------|----------------------|-------------------|----------------------------------|------------------------------------|-----------------|-----------------------|-------------------|------------------|---------------------|
| Time | | Accumulated | | | A | A.II | | | | | D. 1. 7 | Revenue | DV -4.01 | | |
| Time Period | Year | Gross Plant Investment | Deprecreciation Reserve | Net Plant In Service | Average Net Plant | Average ADIT | Average Rate Base | Allowed Return | Book Deprec. | O&M Expense | Property Tax | Total Rev. Requir. | Retail Revenue | Excess (Deficy.) | PV of Cash Flows |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) |
| 0 | 2046 | | | | | | | | | | | | | | |
| 0 1 | 2016 2017 | | | | | | | | | | | | | | |
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| 21 | 2037 | | | | | | | | | | | | | | |
| 22 | 2038 | | | | | | | | | | | | | | |
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| 32 33 | 2048 2049 | | | | | | | | | | | | | | |
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| 45 | 2061 | | | | | | | | | | | | | | |
| 46 | 2062 | | | | | | | | | | | | | | |
| 47 48 | 2063 2064 | | | | | | | | | | | | | | |
| 46 | 2064 | | | | | | | | | | | | | | |
| Reference | | Page E-2 | Page E-2 | Page E-2 | Page E-2 | Page E-2 | Calculation | Page E-10 | Page E-2 | Page E-9 x Rate per Customer | Page E-2 | Calculation | Page E-9 | Calculation | Calculation |

[TRADE SECRET DATA BEGINS...



| | Net Plant | | ADIT - Property | | ADIT - S | Surcharge F | Revenues | Total ADIT | _ |
|--------------------------|-------------|-------------------------|--|--------------------------------|----------|-------------|------------------|---------------|---------------|
| Gross Plant Depreciation | Accum. Res. | Net Plant Avg Net Plant | Tax Rates Tax Deprec. Cum Tax Deprec. Book-Tax Deprec. Acc. Def. Tax Avg. ADIT | Annual Surcharge Revenue | CIAC | Tax | Cum Tax Avg ADIT | | Prope Taxe |
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Minnesota Energy Resources Corporation

Docket No. G-011/M-16Exhibit C
Esko Project Workpapers

[TRADE SECRET DATA BEGINS.....

MERC New Area Surcharge Analysis
ESKO NEW TOWN GROWTH WITH NNG TAP
Page E-3

All Formulas



| | | | | Net Plant | | | | | ADIT - Property |
|----------|--------------|-------|--------------|------------|-------|-----------|-------|---------|-----------------|
| | _ | Gross | | | Net | Avg | Tax | Tax | Cum. Tax |
| | Year | Plant | Depreciation | Acum. Res. | Plant | Net Plant | Rates | Deprec. | Deprec. |
| 0 | 2016 | | | | | | | | |
| 1 | 2017 | | | | | | | | |
| 2 | 2018 | | | | | | | | |
| 3 | 2019 | | | | | | | | |
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Minnesota Energy Resources Corporation
Docket No. G-011/M-16-__
Exhibit C
Esko Project Workpapers

[TRADE SECRET DATA BEGINS.....

MERC New Area Surcharge Analysis

ESKO NEW TOWN GROWTH WITH NNG TAP

Page E-4

| | | | | Net Plant | | | | | ADIT - Prop |
|----------|--------------|-------|--------------|-------------|-------|-----------|-------|---------|-------------|
| | _ | Gross | | | Net | Avg | Tax | Tax | Cum Tax |
| | Year | Plant | Depreciation | Accum. Res. | Plant | Net Plant | Rates | Deprec. | Deprec. |
| 0 | 2016 | | | | | | | | |
| 1 | 2017 | | | | | | | | |
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[TRADE SECRET DATA BEGINS.....



| Year Gross Net Avg Tax Tax Cum* 0 2016 1 2017 2 2018 3 2019 4 2020 4 2020 4 2021 6 2022 7 2023 8 2024 9 2025 10 2026 11 2027 12 2028 13 2029 14 2030 15 2031 16 2032 17 2033 18 2034 19 2035 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 2036 20 20 20 20 20 20 20 20 20 20 20 20 20 20 | | | | Net Plant | | | | | ADIT - Prop Cum Tax |
|--|-------|-----|------------------|-------------|-------|-----------|-------|---------|------------------------|
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| 1 2017 2 2018 3 2019 4 2020 5 2021 6 2022 7 2023 8 2024 9 2025 10 2026 11 2027 12 2028 13 2029 14 2030 15 2031 16 2032 17 2033 18 2034 19 2035 20 2036 21 2037 22 2038 23 2039 24 2040 25 2041 26 2042 27 2043 28 2044 29 2045 30 2046 31 2047 32 2048 33 2049 34 2050 35 2051 36 2052 37 2053 38 2054 39 2055 40 2056 41 2057 42 2058 43 2059 44 2060 45 2061 | Year | PI | ant Depreciation | Accum. Res. | Plant | Net Plant | Rates | Deprec. | Deprec. |
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| 3 | | | | | | | | | |
| 4 2020 5 2021 6 2022 7 2023 8 2024 9 2025 10 2026 11 2027 12 2028 13 2029 14 2030 15 2031 16 2032 17 2033 18 2034 19 2035 10 2036 11 2037 12 2038 18 2034 19 2035 10 2036 11 2037 12 2038 18 2034 19 2035 10 2036 11 2037 12 2038 13 2039 14 2040 15 2041 16 2041 17 2037 18 2041 18 2044 19 2046 19 2056 10 2056 11 2057 12 2053 18 2054 19 2055 10 2056 11 2067 12 2058 13 2069 14 2060 15 2061 | | | | | | | | | |
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| 22 2048 32 2049 34 2050 35 2051 36 2052 37 2053 38 2054 39 2055 30 2056 31 2057 32 2058 33 2059 34 2060 35 2061 36 2062 | 1 20 | 047 | | | | | | | |
| 33 2049 34 2050 35 2051 36 2052 37 2053 38 2054 39 2055 40 2056 41 2057 42 2058 43 2059 44 2060 45 2061 | | | | | | | | | |
| 244 2050 255 2051 266 2052 267 2053 288 2054 299 2055 200 2056 201 2057 212 2058 23 2059 244 2060 25 2061 26 2062 | 33 20 | | | | | | | | |
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[TRADE SECRET DATA BEGINS..... MERC New Area Surcharge Analysis ESKO NEW TOWN GROWTH WITH NNG TAP Page E-6

| | | | | Net Plant | | | | | ADIT - Prop |
|----------|--------------|-------|--------------|-------------|-------|-----------|-------|---------|-------------|
| | _ | Gross | | | Net | Avg | Tax | Tax | Cum Tax |
| | Year | Plant | Depreciation | Accum. Res. | Plant | Net Plant | Rates | Deprec. | Deprec. |
| | | | | | | | | | |
| 0 | 2016 | | | | | | | | |
| 1 | 2017 | | | | | | | | |
| 2 | 2018 | | | | | | | | |
| 3 | 2019 | | | | | | | | |
| 4 | 2020 | | | | | | | | |
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| 12 | 2028 | | | | | | | | |
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| | | Gross | | | Net | Avg | Tax | Tax | Cum Tax |
| | Year | Plant | Depreciation | Accum. Res. | Plant | Net Plant | Rates | Deprec. | Deprec. |
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| 0 | 2016 2017 | | | | | | | | |
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| | | | | | | | | | |
| 3 | 2019 | | | | | | | | |
| 4 | 2020 | | | | | | | | |
| 5 | 2021 | | | | | | | | |
| 6 | 2022 | | | | | | | | |
| 7 | 2023 | | | | | | | | |
| 8 9 | 2024 | | | | | | | | |
| | 2025 | | | | | | | | |
| 10 | 2026 | | | | | | | | |
| 11 | 2027 | | | | | | | | |
| 12 | 2028 | | | | | | | | |
| 13 | 2029 | | | | | | | | |
| 14 | 2030 | | | | | | | | |
| 15 | 2031 | | | | | | | | |
| 16 | 2032 | | | | | | | | |
| 17 | 2033 | | | | | | | | |
| 18 | 2034 | | | | | | | | |
| 19 20 | 2035 2036 | | | | | | | | |
| 21 | 2036 | | | | | | | | |
| 22 | 2037 | | | | | | | | |
| 23 | 2038 | | | | | | | | |
| 23 24 | 2039 | | | | | | | | |
| 25 | 2040 | | | | | | | | |
| 26 | 2041 | | | | | | | | |
| 27 | 2042 | | | | | | | | |
| 28 | 2043 | | | | | | | | |
| 29 | 2045 | | | | | | | | |
| 30 | 2046 | | | | | | | | |
| 31 | 2047 | | | | | | | | |
| 32 | 2048 | | | | | | | | |
| 33 | 2049 | | | | | | | | |
| 34 | 2050 | | | | | | | | |
| 35 | 2051 | | | | | | | | |
| 36 | 2052 | | | | | | | | |
| 37 | 2053 | | | | | | | | |
| 38 | 2054 | | | | | | | | |
| 39 | 2055 | | | | | | | | |
| 40 | 2056 | | | | | | | | |
| 41 | 2057 | | | | | | | | |
| 42 | 2058 | | | | | | | | |
| 43 | 2059 | | | | | | | | |
| 44 | 2060 | | | | | | | | |
| 45 | 2061 | | | | | | | | |
| 46 | 2062 | | | | | | | | |
| 47 | 2063 | | | | | | | | |
| 48 | 2064 | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | - | | | | | | | | |

Net Plant

[TRADE SECRET DATA BEGINS.....



| | | | | Net Plant | | | | | ADIT - Prop |
|----|------|-------|--------------|-------------|-------|-----------|-------|---------|-------------|
| | _ | Gross | | | Net | Avg | Tax | Tax | Cum Tax |
| | Year | Plant | Depreciation | Accum. Res. | Plant | Net Plant | Rates | Deprec. | Deprec. |
| | | | • | | | | | • | • |
| 0 | 2016 | | | | | | | | |
| 1 | 2017 | | | | | | | | |
| 2 | 2018 | | | | | | | | |
| 3 | 2019 | | | | | | | | |
| 4 | 2020 | | | | | | | | |
| 5 | 2021 | | | | | | | | |
| 6 | 2022 | | | | | | | | |
| 7 | 2023 | | | | | | | | |
| 8 | 2024 | | | | | | | | |
| 9 | 2025 | | | | | | | | |
| 10 | 2026 | | | | | | | | |
| 11 | 2027 | | | | | | | | |
| 12 | 2028 | | | | | | | | |
| 13 | 2029 | | | | | | | | |
| 14 | 2030 | | | | | | | | |
| 15 | 2031 | | | | | | | | |
| 16 | 2032 | | | | | | | | |
| 17 | 2033 | | | | | | | | |
| 18 | 2034 | | | | | | | | |
| 19 | 2035 | | | | | | | | |
| 20 | 2036 | | | | | | | | |
| 21 | 2037 | | | | | | | | |
| 22 | 2038 | | | | | | | | |
| 23 | 2039 | | | | | | | | |
| 24 | 2040 | | | | | | | | |
| 25 | 2041 | | | | | | | | |
| 26 | 2042 | | | | | | | | |
| 27 | 2043 | | | | | | | | |
| 28 | 2044 | | | | | | | | |
| 29 | 2045 | | | | | | | | |
| 30 | 2046 | | | | | | | | |
| 31 | 2047 | | | | | | | | |
| 32 | 2048 | | | | | | | | |
| 33 | 2049 | | | | | | | | |
| 34 | 2050 | | | | | | | | |
| 35 | 2051 | | | | | | | | |
| 36 | 2052 | | | | | | | | |
| 37 | 2053 | | | | | | | | |
| 38 | 2054 | | | | | | | | |
| 39 | 2055 | | | | | | | | |
| 40 | 2056 | | | | | | | | |
| 41 | 2057 | | | | | | | | |
| 42 | 2058 | | | | | | | | |
| 43 | 2059 | | | | | | | | |
| 44 | 2060 | | | | | | | | |
| 45 | 2061 | | | | | | | | |
| 46 | 2062 | | | | | | | | |
| 47 | 2063 | | | | | | | | |
| 48 | 2064 | | | | | | | | |
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| | | | | | | | | | |

[TRADE SECRET DATA BEGINS....

ESKO NEW TOWN GROWTH WITH NNG TAP

| Retail Sales and Surcharge | | | | | | |
|--|--|--------------------------|---|---|--|---|
| Avers Custor Year 0 2016 | Residential Reside | Commercia-Small Morthy | Commercial - Large Average Armal Volumetric Base Armal Surbarge Surcharge Troughput Margh. (Customer (Customer Revenue) Per Recovery Customer Customer Revenue Customer Revenue) | Small Volume Interruptible Annual Rase Annual Rase Annual Ratal Survivange Customers Throughput Marger! Charge! Revenue For Recovery Customers Customer Unit Customer Customer Customer Customer Customer | Aveage Annual Volumenter Annual Base Annual Retal Classifier Throughput (Margin / Unit Customers Revenue Customers | Summary Total Total Retail Customers Revenue Recover Surcharge Surcharge Recovery Recovery Recovery |
| 1 2017 2 2018 3 2019 4 2020 5 2021 6 2022 | | | | | | |
| 7 2023 8 2024 9 2025 10 2026 11 2027 12 2028 | | | | | | |
| 13 2029 14 2030 15 2031 16 2032 17 2033 | | | | | | |
| 18 2034 19 2035 20 2036 21 2037 22 2038 23 2039 | | | | | | |
| 24 2040 25 2041 26 2042 27 2043 28 2044 | | | | | | |
| 29 2045 30 2046 31 2047 32 2048 33 2049 34 2050 | | | | | | |
| 35 2051 36 2052 37 2053 38 2054 39 2055 | | | | | | |
| 40 2056 41 2057 42 2058 43 2059 44 2060 45 2061 | | | | | | |
| 46 2062 47 2063 48 2064 | | | | | | |
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[TRADE SECRET DATA BEGINS...

MERC New Area Surcharge Analysis **ESKO NEW TOWN GROWTH WITH NNG TAP**Page E-10

All Formulas

Minnesota Energy Resources Corporation Docket No. G-011/M-16-___ Exhibit C Esko Project Workpapers

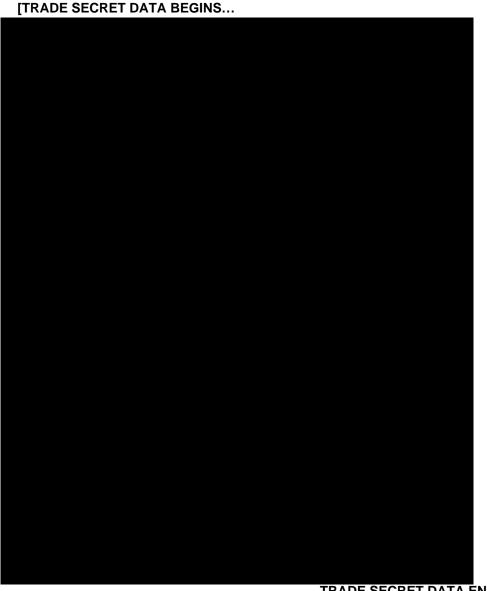


MERC New Area Surcharge Analysis
ESKO NEW TOWN GROWTH WITH NNG TAP

Minnesota Energy Resources Corporation
Docket No. G-011/M-16-___
Exhibit C

Esko Project Workpapers

All Formulas



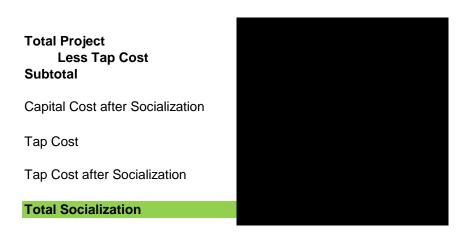
...TRADE SECRET DATA ENDS]

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PUBLIC DOCUMENT--TRADE SECRET DATA HAS BEEN EXCISED [TRADE SECRET DATA BEGINS...

Esko Tap Cost Amortization Schedule

Minnesota Energy Resources Corporation Docket No. G-011/M-16-_

Exhibit C

Esko Project Workpapers

Tap Cost:

Beg Balance Annual **Balance** (excl Year (excl carry cost) Amortization carry Cost)

Annual Carry Cost

Annual **0&M** Expense (Amortizatio n and Carry Cost)



Annual Carry cost is 2.3487%

PUBLIC DOCUMENT--TRADE SECRET DATA HAS BEEN EXCISED [TRADE SECRET DATA BEGINS..

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NGEP Rider Calculation

Total Costs Proposed for Recovery in NGEP Rider

Sales Forecast approved in GR-13-617

Rider Calculation



...TRADE SECRET DATA ENDS]