

**MINNESOTA ENERGY RESOURCES - Consolidated**

**DESIGN-DAY DEMAND SUMMARY**

**November 1, 2019**

|                                      |           |           |
|--------------------------------------|-----------|-----------|
| Design Day Requirement               |           | 56,782    |
| Total Peak Day Entitlement           |           | 57,949    |
| 2018/19 Firm Peak Day Actual Sendout | 1/29/2019 | 53,653    |
| Firm Annual Throughput - Minnesota   |           | 4,803,031 |
| No. of Firm Customers                |           | 35,981    |
| Department Load Factor Calculation   |           | 24.53%    |

**MINNESOTA ENERGY RESOURCES - Consolidated**

**MINNESOTA DESIGN DAY REQUIREMENTS**

November 1, 2019

HDD

| Pipeline Group | 2017/18 Customer Count | 1/20 Design DDD | Regression Factors |       | Regression Total | Add Adjustment | 1/20 Requirements Regression Load | Estimated Contract Demand Units | Total |
|----------------|------------------------|-----------------|--------------------|-------|------------------|----------------|-----------------------------------|---------------------------------|-------|
|                |                        |                 | Intercept          | Slope |                  |                |                                   |                                 |       |

| VGT      |  |     |     |     |        |       |        |   |        |
|----------|--|-----|-----|-----|--------|-------|--------|---|--------|
| Peak     |  | 109 | 391 | 157 | 16,273 | 1,013 | 17,286 | 7 | 17,293 |
| Off Peak |  | 57  | 391 | 157 | 9,243  | 1,113 | 10,356 | 7 | 10,363 |

| GLGT     |  |     |     |     |        |       |        |     |        |
|----------|--|-----|-----|-----|--------|-------|--------|-----|--------|
| Peak     |  | 107 | 474 | 269 | 28,297 | 1,677 | 29,974 | 51  | 30,025 |
| Off Peak |  | 57  | 474 | 269 | 15,781 | 1,677 | 17,458 | 103 | 17,561 |

| Centra   |  |     |    |    |       |     |       |   |       |
|----------|--|-----|----|----|-------|-----|-------|---|-------|
| Peak     |  | 107 | 57 | 85 | 9,093 | 371 | 9,464 | 0 | 9,464 |
| Off Peak |  | 57  | 57 | 85 | 4,874 | 371 | 5,245 | 0 | 5,245 |

| Total Consolidated |        |     |     |     |        |       |        |     |        |
|--------------------|--------|-----|-----|-----|--------|-------|--------|-----|--------|
| Peak               | 35,981 | 107 | 922 | 511 | 53,663 | 3,061 | 56,724 | 58  | 56,782 |
| Off Peak           | 35,981 | 57  | 922 | 511 | 29,898 | 3,161 | 33,059 | 110 | 33,169 |

**MINNESOTA ENERGY RESOURCES - Consolidated**

**DESIGN-DAY DEMAND PER CUSTOMER**

November 1, 2019

| <b><u>Heating Season</u></b> | <b><u>No. of Firm Customers</u></b> | <b><u>Design Day Requirements</u></b> | <b><u>MMBtu /Customer /Day</u></b> |
|------------------------------|-------------------------------------|---------------------------------------|------------------------------------|
| 19/20                        | 35,981                              | 56,782                                | 1.58                               |
| 18/19                        | 35,653                              | 56,470                                | 1.58                               |
| 17/18                        | 35,965                              | 56,266                                | 1.56                               |
| 16/17                        | 35,499                              | 55,528                                | 1.56                               |
| 15/16                        | 34,799                              | 53,075                                | 1.53                               |
| 14/15                        | 34,397                              | 48,706                                | 1.42                               |
| 13/14                        | 34,007                              | 50,048                                | 1.47                               |
| 12/13                        | 33,630                              | 52,289                                | 1.55                               |
| 11/12                        | 33,384                              | 50,366                                | 1.51                               |
| 10/11                        | 33,399                              | 50,779                                | 1.52                               |

**MINNESOTA ENERGY RESOURCES - Consolidated**

**SUMMER/WINTER USAGE - Dth**  
**PROJECTED 12 MONTHS ENDING JUNE 2020**  
**Consolidated**

| <u>Class</u> | <u>Summer<br/>Apr-Oct</u> | <u>Winter<br/>Nov-Mar</u> | <u>Total</u>     |
|--------------|---------------------------|---------------------------|------------------|
| GS           | 1,292,304                 | 3,485,858                 | 4,778,162        |
| SVI          | 138,501                   | 323,892                   | 462,393          |
| SVJ          | 8,580                     | 16,289                    | 24,869           |
| LVI          | 168,071                   | 209,413                   | 377,484          |
| LVJ          |                           |                           | 0                |
| SLV          |                           |                           | 0                |
| IS           |                           |                           | 0                |
| <b>Total</b> | <u>1,607,456</u>          | <u>4,035,453</u>          | <u>5,642,908</u> |

**MINNESOTA ENERGY RESOURCES - Consolidated**

**ENTITLEMENT LEVELS  
 November 1, 2019**

| <u>Capacity Type</u>            | <i>Summer</i>                  |                               |                                 | <i>April/October</i>           |                               |                                 | <i>Winter</i>                  |                               |                                 |
|---------------------------------|--------------------------------|-------------------------------|---------------------------------|--------------------------------|-------------------------------|---------------------------------|--------------------------------|-------------------------------|---------------------------------|
|                                 | <u>2018/19</u><br><u>MMBtu</u> | <u>Change</u><br><u>MMBtu</u> | <u>Proposed</u><br><u>MMBtu</u> | <u>2018/19</u><br><u>MMBtu</u> | <u>Change</u><br><u>MMBtu</u> | <u>Proposed</u><br><u>MMBtu</u> | <u>2018/19</u><br><u>MMBtu</u> | <u>Change</u><br><u>MMBtu</u> | <u>Proposed</u><br><u>MMBtu</u> |
| FT Western Zone FT19131         | 10,130                         | 0                             | 10,130                          | 10,130                         | 0                             | 10,130                          | 0                              | 0                             | 0                               |
| FT Western Zone FT18528         | 12,600                         | 0                             | 12,600                          | 12,600                         | 0                             | 12,600                          | 12,600                         | 0                             | 12,600                          |
| FT Western Zone (5) FT18528 (5) | 0                              | 0                             | 0                               | 0                              | 0                             | 0                               | 3,728                          | 0                             | 3,728                           |
| FT Western Zone (5) FT19129 (5) | 0                              | 0                             | 0                               | 0                              | 0                             | 0                               | 15,030                         | 0                             | 15,030                          |
| ANR (5) * 130504                | 0                              | 0                             | 0                               | 0                              | 0                             | 0                               | 15,000                         | 0                             | 15,000                          |
| FT-A ZONE 1 - 1 AF0012          | 14,493                         | 0                             | 14,493                          | 14,493                         | 0                             | 14,493                          | 15,591                         | 0                             | 15,591                          |
| FT-A ZONE 1 - 1 AF0321          | 0                              | 0                             | 0                               | 0                              | 0                             | 0                               | 1,500                          | 0                             | 1,500                           |
| CENTRA FT-1                     | 9,500                          | 0                             | 9,500                           | 9,500                          | 0                             | 9,500                           | 9,500                          | 0                             | 9,500                           |
| <b>Total Entitlement</b>        | <b>46,723</b>                  | <b>0</b>                      | <b>46,723</b>                   | <b>46,723</b>                  | <b>0</b>                      | <b>46,723</b>                   | <b>57,949</b>                  | <b>0</b>                      | <b>57,949</b>                   |
| Forecasted Design Day-Adjusted  |                                |                               |                                 | 32,826                         | 343                           | 33,169                          | 56,470                         | 312                           | 56,782                          |
| Capacity Surplus/Shortage       |                                |                               |                                 | 13,897                         | (343)                         | 13,554                          | 1,479                          | (312)                         | 1,167                           |
| Reserve Margin                  |                                |                               |                                 | 42.34%                         | -1.47%                        | 40.86%                          | 2.62%                          | -0.56%                        | 2.06%                           |

## MINNESOTA ENERGY RESOURCES - CONSOLIDATED

### RATE IMPACT OF THE PROPOSED DEMAND CHANGE

November 1, 2019

| All costs in<br>\$/Dth | Base<br>Cost of<br>Gas<br>G011/MR-17-564<br>1-Jul-19 | Demand<br>Charge<br><br>Oct 1, 2018 | Demand<br>Charge<br>Demand Filing<br>Nov 1, 2018 | Most<br>Recent<br>PGA<br><br>Oct 1, 2019 | Proposed<br>Effective<br><br>Nov 1, 2019 | Result of Proposed Change              |   |                                    |                                     |
|------------------------|--|-------------------------------------|--|--|--|--|---|------------------------------------|-------------------------------------|
|                        |  |                                     |  |  |  | Change<br>from<br>Last<br>Rate<br>Case | Change<br>from<br>Nov 1, 2018<br>Demand<br>Filing | Change<br>from<br>Last<br>PGA<br>% | Change<br>from<br>Last<br>PGA<br>\$ |

| 1) General Service Residential Avg. Annual Use:              |          |          |          |          |          | 86     | Dth     |        |          |  |
|--|----------|----------|----------|----------|----------|--------|---------|--------|----------|--|
| Commodity Cost   | \$2.8746 | \$3.0522 | \$3.3664 | \$2.1687 | \$2.7837 | -3.16% | -17.31% | 28.36% | \$0.6150 |  |
| Demand Cost  | \$0.7527 | \$0.6908 | \$0.8229 | \$0.8229 | \$0.8229 | 9.33%  | 0.00%   | 0.00%  | \$0.0000 |  |
| Commodity Margin   | \$2.4116 | \$2.4116 | \$2.4116 | \$2.4686 | \$2.4686 | 2.36%  | 2.36%   | 0.00%  | \$0.0000 |  |
| Total Cost of Gas  | \$6.0389 | \$6.1546 | \$6.6009 | \$5.4602 | \$6.0752 | 0.60%  | -7.96%  | 11.26% | \$0.6150 |  |
| Avg Annual Cost  | \$518.20 | \$528.12 | \$566.42 | \$468.54 | \$521.31 | 0.60%  | -7.96%  | 11.26% | \$52.77  |  |
| Effect of proposed commodity change on average annual bills: |          |          |          |          |          |        |         |        | \$52.77  |  |
| Effect of proposed demand change on average annual bills:    |          |          |          |          |          |        |         |        | \$0.00   |  |

| 2) Large C&I Firm, Class 2: Avg. Annual Use:                 |            |            |            |            |            | 608    | Dth     |        |          |  |
|--|------------|------------|------------|------------|------------|--------|---------|--------|----------|--|
| Commodity Cost   | \$2.8746   | \$3.0522   | \$3.3664   | \$2.1687   | \$2.7837   | -3.16% | -17.31% | 28.36% | \$0.6150 |  |
| Demand Cost  | \$0.7527   | \$0.6908   | \$0.8229   | \$0.8229   | \$0.8229   | 9.33%  | 0.00%   | 0.00%  | \$0.0000 |  |
| Commodity Margin   | \$1.6885   | \$1.6885   | \$1.6885   | \$1.6857   | \$1.6857   | -0.17% | -0.17%  | 0.00%  | \$0.0000 |  |
| Total Cost of Gas  | \$5.3158   | \$5.4315   | \$5.8778   | \$4.6773   | \$5.2923   | -0.44% | -9.96%  | 13.15% | \$0.6150 |  |
| Avg Annual Cost  | \$3,233.12 | \$3,303.49 | \$3,574.94 | \$2,844.78 | \$3,218.84 | -0.44% | -9.96%  | 13.15% | \$374.06 |  |
| Effect of proposed commodity change on average annual bills: |            |            |            |            |            |        |         |        | \$374.06 |  |
| Effect of proposed demand change on average annual bills:    |            |            |            |            |            |        |         |        | \$0.00   |  |

| 3) Small C&I Interruptible, Class 2: Avg. Annual Use:        |             |             |             |             |             | 5,627  | Dth     |        |            |  |
|--|-------------|-------------|-------------|-------------|-------------|--------|---------|--------|------------|--|
| Commodity Cost   | \$2.8746    | \$3.0522    | \$3.3664    | \$2.1687    | \$2.7837    | -3.16% | -17.31% | 28.36% | \$0.6150   |  |
| Commodity Margin   | \$0.9740    | \$0.9740    | \$0.9740    | \$1.0453    | \$1.0453    | 7.32%  | 7.32%   | 0.00%  | \$0.0000   |  |
| Total Cost of Gas  | \$3.8486    | \$4.0262    | \$4.3404    | \$3.2140    | \$3.8290    | -0.51% | -11.78% | 19.14% | \$0.6150   |  |
| Avg Annual Cost  | \$21,657.13 | \$22,656.53 | \$24,424.62 | \$18,086.06 | \$21,546.95 | -0.51% | -11.78% | 19.14% | \$3,460.89 |  |
| Effect of proposed commodity change on average annual bills: |             |             |             |             |             |        |         |        | \$3,460.89 |  |

| 4) Large C&I Interruptible, Class 3: Avg. Annual Use:        |              |              |              |             |              | 31,604 | Dth     |        |             |  |
|--|--------------|--------------|--------------|-------------|--------------|--------|---------|--------|-------------|--|
| Commodity Cost   | \$2.8746     | \$3.0522     | \$3.3664     | \$2.1687    | \$2.7837     | -3.16% | -17.31% | 28.36% | \$0.6150    |  |
| Commodity Margin   | \$0.5329     | \$0.5329     | \$0.5329     | \$0.9453    | \$0.9453     | 77.39% | 77.39%  | 0.00%  | \$0.0000    |  |
| Total Cost of Gas  | \$3.4075     | \$3.5851     | \$3.8993     | \$3.1140    | \$3.7290     | 9.44%  | -4.37%  | 19.75% | \$0.6150    |  |
| Avg Annual Cost  | \$107,690.91 | \$113,303.80 | \$123,233.80 | \$98,415.11 | \$117,852.29 | 9.44%  | -4.37%  | 19.75% | \$19,437.17 |  |
| Effect of proposed commodity change on average annual bills: |              |              |              |             |              |        |         |        | \$19,437.17 |  |

**Note: Average Annual Use based on new class structure found in 2018 MERC Gas Rate Design in Docket GR-17-563**

## MINNESOTA ENERGY RESOURCES - CONSOLIDATED

### RATE IMPACT OF THE PROPOSED DEMAND CHANGE

November 1, 2019

| <b>DEMAND</b>                              |             |                           |        |               |                |                          |                   |                  |                  |  |
|--|-------------|---------------------------|--------|---------------|----------------|--------------------------|-------------------|------------------|------------------|--|
| Contract Type                              | Season      | Monthly Entitlement (Dth) | Months | Rate (\$/Dth) | Contract Costs | Rate Case Sales (therms) | \$/therm          |                  |                  |  |
| <b>Viking (VGT)</b>                        |             |                           |        |               |                |                          |                   |                  |                  |  |
| FT-A ZONE 1 - 1                            | AF0012      | Annual                    | 14,493 | 12            | 4.3706 \$      | 760,117                  | 48,386,934        | \$0.01571        |                  |  |
| FT-A ZONE 1 - 1                            | AF0012      | Winter                    | 1,098  | 3             | 4.3706 \$      | 14,397                   | 48,386,934        | \$0.00030        |                  |  |
| FT-A ZONE 1 - 1                            | AF0321      | Winter                    | 1,500  | 3             | 4.3706 \$      | 19,668                   | 48,386,934        | \$0.00041        |                  |  |
| <b>VGT Demand</b>                          |             |                           |        |               |                | <b>\$ 794,182</b>        | <b>48,386,934</b> | <b>\$0.01641</b> |                  |  |
| <b>Great Lakes (GLGT)</b>                  |             |                           |        |               |                |                          |                   |                  |                  |  |
| FT Western Zone                            | FT19131     | Summer                    | 10,130 | 7             | \$2.8100 \$    | 199,257                  | 48,386,934        | \$0.00412        |                  |  |
| FT Western Zone                            | FT18528     | Annual                    | 12,600 | 12            | \$2.8100 \$    | 424,872                  | 48,386,934        | \$0.00878        |                  |  |
| FT Western Zone                            | FT18528 (5) | Winter                    | 3,728  | 5             | \$2.8100 \$    | 52,378                   | 48,386,934        | \$0.00108        |                  |  |
| FT Eastern to Western Zone                 | FT19129 (5) | Winter                    | 15,030 | 5             | \$6.1000 \$    | 458,415                  | 48,386,934        | \$0.00947        |                  |  |
| ANR Upstream                               | 130504      | Winter                    | 15,000 | 5             | \$0.9110 \$    | 68,325                   | 48,386,934        | \$0.00141        |                  |  |
| <b>GLGT Demand</b>                         |             |                           |        |               |                | <b>\$ 1,203,247</b>      | <b>48,386,934</b> | <b>\$0.02487</b> |                  |  |
| <b>Centra</b>                              |             |                           |        |               |                |                          |                   |                  |                  |  |
| CENTRA TRANSMISSION                        |             | Annual                    | 9,500  | 12            | \$14.1070 \$   | 1,608,198                | 48,386,934        | \$0.03324        |                  |  |
| CENTRA MINNESOTA PIPELINES                 |             | Annual                    | 9,500  | 12            | \$3.2990 \$    | 376,086                  | 48,386,934        | \$0.00777        |                  |  |
| <b>Centra Demand</b>                       |             |                           |        |               |                | <b>\$ 1,984,284</b>      | <b>48,386,934</b> | <b>\$0.04101</b> |                  |  |
| <b>MERC-Consolidated DEMAND - \$/therm</b> |             |                           |        |               |                | <b>\$ 3,981,713</b>      |                   |                  | <b>\$0.08229</b> |  |

|                              |
|------------------------------|
| <b>FOR JOINT RATE DEMAND</b> |
|------------------------------|

|            |                             |
|------------|-----------------------------|
| 48,386,934 | Annual Firm Sales in therms |
|------------|-----------------------------|

MERC-Consolidated Firm (GS) Sales as filed in Docket No. G011/MR-17-564

|                           |        |        |    |         |  |
|---------------------------|--------|--------|----|---------|--|
| <b>Viking (VGT)</b>       |        |        |    |         |  |
| FT-A ZONE 1 - 1           | Annual | 14,493 | 12 | 173,916 |  |
| FT-A ZONE 1 - 1           | Winter | 1,098  | 3  | 3,294   |  |
| FT-A ZONE 1 - 1           | Winter | 1,500  | 3  | 4,500   |  |
| <b>Great Lakes (GLGT)</b> |        |        |    |         |  |
| FT Western Zone           | Summer | 10,130 | 7  | 70,910  |  |
| FT Western Zone           | Annual | 12,600 | 12 | 151,200 |  |



|  |        |                     |                  |               |
|--|--------|---------------------|------------------|---------------|
| FT Western Zone                            | Winter | 3,728               | 5                | 18,640        |
| FT Eastern to Western Zone                 | Winter | 15,030              | 5                | 75,150        |
| ANR Upstream                               | Winter | 15,000              | 5                | 75,000        |
| <b>Centra</b>                              |        |                     |                  |               |
| CENTRA TRANSMISSION                        | Annual | 9,500               | 12               | 114,000       |
| CENTRA MINNESOTA PIPELINES                 | Annual | 9,500               | 12               | 114,000       |
| <b>Total Demand Cost</b>                   |        | <b>\$ 3,981,713</b> |                  |               |
| <b>Total Demand Weighted Vol in therms</b> |        | <b>6,866,100</b>    |                  |               |
| <b>Total Joint Demand Rate \$/therm</b>    |        |                     | <b>\$0.57991</b> | <b>/therm</b> |

**MINNESOTA ENERGY RESOURCES - CONSOLIDATED**  
 RATE IMPACT OF THE PROPOSED DEMAND CHANGE

PRESENT AVERAGE COST OF GAS COMMODITY

NOVEMBER 1, 2019

| WACOG   | Rate                         | Annual Dth        | Call Option Premium | Physical Forward Start Premium | Balancing Service | Total Annual Cost   | System Cost/therm | Storage Comm Rate | Total Comm Rate | REFERENCE                     | Effective                                |
|---|------------------------------|-------------------|---------------------|--------------------------------|-------------------|---------------------|-------------------|-------------------|-----------------|-------------------------------|--|
| <b>VGT</b>  |                              |                   |                     |                                |                   |                     |                   |                   |                 |                               |  |
| GAS COST  | \$2.61150                    |                   |                     |                                |                   |                     |                   |                   |                 |                               |  |
| FUEL 0.09%  | \$0.00235                    |                   |                     |                                |                   |                     |                   |                   |                 | Sub 16th Revised Sheet No. 5B |  |
| COMMODITY TRANSPORTATION                            | \$0.01160                    |                   |                     |                                |                   |                     |                   |                   |                 | Sub 16th Revised Sheet No. 5B |  |
| GRI   | \$0.00000                    |                   |                     |                                |                   |                     |                   |                   |                 | Sub 16th Revised Sheet No. 5B |  |
| ACA   | \$0.00130                    |                   |                     |                                |                   |                     |                   |                   |                 | Sub 16th Revised Sheet No. 5B |  |
| <b>VGT Commodity</b>                                | <b>\$2.62675</b>             | <b>2,310,917</b>  | <b>\$31,152</b>     | <b>\$42,560</b>                | <b>\$89,580</b>   | <b>\$6,233,491</b>  | <b>\$0.10767</b>  |                   |                 | <b>VGT Commodity</b>          |  |
| <b>GLGT</b>   |                              |                   |                     |                                |                   |                     |                   |                   |                 |                               |  |
| GAS COST  | \$2.61150                    |                   |                     |                                |                   |                     |                   |                   |                 |                               |  |
| FUEL 0.547%   | \$0.01436                    |                   |                     |                                |                   |                     |                   |                   |                 | 5 Revised Sheet 4 Contract    |  |
| COMMODITY TRANSPORTATION                            | \$0.00288                    |                   |                     |                                |                   |                     |                   |                   |                 | 18th Revised Sheet No. 7      |  |
| GRI   | \$0.00000                    |                   |                     |                                |                   |                     |                   |                   |                 |                               |  |
| ACA   | \$0.00130                    |                   |                     |                                |                   |                     |                   |                   |                 |                               |  |
| <b>GLGT Commodity</b>                               | <b>\$2.63004</b>             | <b>2,143,952</b>  | <b>\$28,901</b>     | <b>\$5,700</b>                 | <b>\$0</b>        | <b>\$5,673,279</b>  | <b>\$0.09799</b>  |                   |                 | <b>GLGT Commodity</b>         |  |
| <b>CENTRA</b>                                       |                              |                   |                     |                                |                   |                     |                   |                   |                 |                               |  |
| CENTRA TRANSMISSION (\$Cdn/103M3)                   | 1.0684                       |                   |                     |                                |                   |                     |                   |                   |                 | Sheet 1 (N.E.B.)              |  |
| Conversion  | \$0.02313                    |                   |                     |                                |                   |                     |                   |                   |                 |                               |  |
| Abandonment Toll                                    | \$0.00000                    |                   |                     |                                |                   |                     |                   |                   |                 | N.E.B. MO-078-2014            |  |
| GAS COSTS   | \$2.61150                    |                   |                     |                                |                   |                     |                   |                   |                 |                               |  |
| CUSTOMS FEE   | \$0.00030                    |                   |                     |                                |                   |                     |                   |                   |                 |                               |  |
| <b>CENTRA Commodity</b>                             | <b>\$2.63493</b>             | <b>1,334,508</b>  | <b>\$17,989</b>     | <b>\$91,875</b>                | <b>\$54,000</b>   | <b>\$3,680,198</b>  | <b>\$0.06357</b>  |                   |                 | <b>Centra Commodity</b>       |  |
| <b>Consolidated WACOG w/Premium &amp; Balancing</b> |                              | <b>5,789,376</b>  | <b>\$78,042</b>     | <b>\$140,135</b>               | <b>\$143,580</b>  | <b>\$15,586,969</b> | <b>\$0.26923</b>  | <b>\$0.00914</b>  |                 |                               |  |
|   | Total Annual Sales in therms | <b>57,893,756</b> |                     |                                |                   |                     |                   |                   |                 |                               |  |
|   |                              |                   |                     |                                |                   |                     |                   |                   |                 | <b>\$0.27837</b>              | <b>Total Consolidated WACOG-\$/therm</b> |

| Balancing Service |                     |        |                           |        |               |                |
|-------------------|---------------------|--------|---------------------------|--------|---------------|----------------|
| Pipeline          | Description         | Season | Monthly Entitlement (Dth) | Months | Rate (\$/Dth) | Contract Costs |
| VGT               | Balancing Agreement | Annual | 7,465                     | 12     | \$1.0000      | \$89,580       |
| GLGT              | ---                 |        | 0                         | 0      | \$0.0000      | \$0            |
| Centra            | Union Balancing     | Annual | 10,000                    | 12     | \$0.4500      | \$54,000       |

| Storage Service      |        |                           |        |               |                |                       |                 |
|----------------------|--------|---------------------------|--------|---------------|----------------|-----------------------|-----------------|
|                      | Season | Monthly Entitlement (Dth) | Months | Rate (\$/Dth) | Contract Costs | Annual Sales (therms) | Rate (\$/therm) |
| ANR Pipeline Storage | Annual | 756,100                   | 1      | \$ 0.7000     | \$529,270      | 57,893,756            | \$0.00914       |
|                      |        |                           |        |               | \$529,270      | 57,893,756            | \$0.00914       |

**Total Commodity Cost: \$0.27837**

\* Per Docket No. G-007/M-07-1402-05 dated August 6th, 2014, storage demand charges will be allocated through the commodity charge effective 11/01/2014.

**MINNESOTA ENERGY RESOURCES - CONSOLIDATED**

**Financial Options  
Heating Season 2019-2020**

**Units - Gas Daily Peaker Packages (Physical)**

| November      |              | December      |              | January       |              | February      |              | March         |              | Daily Total | Term Total |
|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|-------------|------------|
| Contract Date | Daily Volume | Contract Date | Daily Volume | Contract Date | Daily Volume | Contract Date | Daily Volume | Contract Date | Daily Volume |             |            |
| N/A           |              | N/A           |              | N/A           |              | N/A           |              | N/A           |              |             |            |

**Premium - Gas Daily Peaker (Monthly Cost)**

| November       |              | December       |              | January        |              | February       |              | March          |              | Option Premium | Total Premium Cost |
|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------------|
| Option Premium | Premium Cost | Option Premium | Premium Cost | Option Premium | Premium Cost | Option Premium | Premium Cost | Option Premium | Premium Cost |                |                    |
| N/A            |              | N/A            |              | N/A            |              | N/A            |              | N/A            |              |                |                    |

**Units - Futures (Dth)**

|              | November      |              | December      |              | January       |              | February      |              | March         |              | Term Total |
|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|------------|
|              | Contract Date | Daily Volume | Contract Date | Daily Volume | Contract Date | Daily Volume | Contract Date | Daily Volume | Contract Date | Daily Volume |            |
| 1            | 05/02/19      | 313          | 05/14/19      | 558          | 05/16/19      | 551          | 05/07/19      | 514          | 05/09/19      | 452          | 72,069     |
| 2            | 06/04/19      | 313          | 06/13/19      | 502          | 06/18/19      | 501          | 06/06/19      | 514          | 06/11/19      | 395          | 67,155     |
| 3            | 07/02/19      | 313          | 07/16/19      | 502          | 07/18/19      | 200          | 07/09/19      | 457          | 07/11/19      | 395          | 55,690     |
| 4            | 08/01/19      | 260          | 08/20/19      | 447          | 07/18/19      | 300          | 08/06/19      | 457          | 08/08/19      | 339          | 54,052     |
| 5            | 09/05/19      | 104          | 09/17/19      | 447          | 08/22/19      | 451          | 09/10/19      | 457          | 09/12/19      | 339          | 54,052     |
| 6            | 09/05/19      | 156          | 10/17/19      | 447          | 09/19/19      | 50           | 10/10/19      | 457          | 10/15/19      | 339          | 42,586     |
| 7            | 10/08/19      | 208          | 01/00/00      | -            | 09/19/19      | 400          | 01/00/00      | -            | 01/00/00      | -            | 19,655     |
| 8            | 01/00/00      | -            |               |              | 10/22/19      | 250          |               |              |               |              | 8,190      |
| 9            |               |              |               |              | 10/22/19      | 200          |               |              |               |              | 6,552      |
| 10           |               |              |               |              |               |              |               |              |               |              |            |
| <b>Total</b> |               | 1,667        |               | 2,903        |               | 2,903        |               | 2,857        |               | 2,258        | 380,000    |

**Units - Call Options (Dth)**

|              | November      |              | December      |              | January       |              | February      |              | March         |              | Term Total |
|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|------------|
|              | Contract Date | Daily Volume | Contract Date | Daily Volume | Contract Date | Daily Volume | Contract Date | Daily Volume | Contract Date | Daily Volume |            |
| 1            | 05/02/19      | 621          | 05/09/19      | 1,005        | 05/07/19      | 576          | 05/14/19      | 1,071        | 05/16/19      | 790          | 122,132    |
| 2            | 06/04/19      | 621          | 06/11/19      | 1,005        | 05/16/19      | 524          | 06/13/19      | 1,012        | 06/18/19      | 790          | 118,842    |
| 3            | 07/02/19      | 621          | 07/11/19      | 949          | 06/06/19      | 1,048        | 07/16/19      | 1,012        | 07/18/19      | 734          | 131,600    |
| 4            | 08/01/19      | 621          | 08/08/19      | 949          | 07/09/19      | 995          | 08/20/19      | 1,012        | 08/22/19      | 734          | 129,976    |
| 5            | 09/05/19      | 621          | 09/12/19      | 949          | 08/06/19      | 995          | 09/17/19      | 1,012        | 09/19/19      | 734          | 129,976    |
| 6            | 10/08/19      | 564          | 10/15/19      | 949          | 09/10/19      | 995          | 10/17/19      | 952          | 10/22/19      | 734          | 126,618    |
| 7            |               |              |               |              | 10/10/19      | 995          |               |              |               |              | 30,855     |
| 8            |               |              |               |              |               |              |               |              |               |              | -          |
| <b>Total</b> |               | 3,667        |               | 5,806        |               | 6,129        |               | 6,071        |               | 4,516        | 790,000    |

**Premium - Call Option (Monthly Cost)**

|              | November       |              | December       |              | January        |              | February       |              | March          |              | Option Premium | Total Premium Cost |
|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------------|
|              | Option Premium | Premium Cost | Option Premium | Premium Cost | Option Premium | Premium Cost | Option Premium | Premium Cost | Option Premium | Premium Cost |                |                    |
| 1            | \$ 0.0980      | \$ 1,824     | \$ 0.0990      | \$ 3,084     | \$ 0.1000      | \$ 1,786     | \$ 0.1000      | \$ 3,000     | \$ 0.1000      | \$ 2,450     | \$ 0.0994      | \$ 12,145          |
| 2            | \$ 0.0930      | \$ 1,731     | \$ 0.0980      | \$ 3,053     | \$ 0.1000      | \$ 1,624     | \$ 0.1000      | \$ 2,833     | \$ 0.1000      | \$ 2,450     | \$ 0.0984      | \$ 11,692          |
| 3            | \$ 0.0950      | \$ 1,768     | \$ 0.1000      | \$ 2,942     | \$ 0.0950      | \$ 3,085     | \$ 0.1000      | \$ 2,833     | \$ 0.1000      | \$ 2,275     | \$ 0.0981      | \$ 12,905          |
| 4            | \$ 0.0960      | \$ 1,787     | \$ 0.1000      | \$ 2,942     | \$ 0.1000      | \$ 3,085     | \$ 0.1000      | \$ 2,833     | \$ 0.1000      | \$ 2,275     | \$ 0.0994      | \$ 12,923          |
| 5            | \$ 0.0990      | \$ 1,843     | \$ 0.1000      | \$ 2,942     | \$ 0.1000      | \$ 3,085     | \$ 0.1000      | \$ 2,833     | \$ 0.1000      | \$ 2,275     | \$ 0.0999      | \$ 12,979          |
| 6            | \$ 0.0900      | \$ 1,523     | \$ 0.0960      | \$ 2,825     | \$ 0.1000      | \$ 3,085     | \$ 0.1000      | \$ 2,667     | \$ 0.1000      | \$ 2,275     | \$ 0.0977      | \$ 12,375          |
| 7            | \$ -           | \$ -         | \$ -           | \$ -         | \$ 0.0980      | \$ 3,024     | \$ -           | \$ -         | \$ -           | \$ -         | \$ -           | \$ 3,024           |
| 8            | \$ -           | \$ -         | \$ -           | \$ -         | \$ -           | \$ -         | \$ -           | \$ -         | \$ -           | \$ -         | \$ -           | \$ -               |
| <b>Total</b> | \$ 0.0952      | \$ 10,477    | \$ 0.0988      | \$ 17,789    | \$ 0.0988      | \$ 18,776    | \$ 0.1000      | \$ 17,000    | \$ 0.1000      | \$ 14,000    | \$ 0.0988      | \$ 78,042          |

**Units - Collar Floor (put)**

No Puts were purchased.

**MINNESOTA ENERGY RESOURCES - CONSOLIDATED**

**19/20 Winter Portfolio Plan - MERC Hedging Plan**

10000 Contract Size

| System                 | Purchase Month | Nov-19           |                 | Dec-19           |                 | Jan-20           |                 | Feb-20           |                 | Mar-20           |                 | Total            |                  | Percent of Requirements |
|------------------------|----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|------------------|-------------------------|
|                        |                | Number Contracts | Contract Volume | Number Contracts | Contract Volume | Number Contracts | Contract Volume | Number Contracts | Contract Volume | Number Contracts | Contract Volume | Number Contracts | Contract Volume  |                         |
| <b>MN Requirements</b> |                |                  | 586,442         |                  | 906,950         |                  | 994,551         |                  | 853,214         |                  | 714,557         |                  | 4,055,714        | 4,055,714               |
| <b>Daily Average</b>   |                |                  | 19,548          |                  | 29,256          |                  | 32,082          |                  | 30,472          |                  | 23,050          |                  | 26,682           |                         |
| 10%                    | Futures        |                  | 58,644          |                  | 90,695          |                  | 99,455          |                  | 85,321          |                  | 71,456          |                  | 405,571          |                         |
| 20%                    | Call           |                  | 117,288         |                  | 181,390         |                  | 198,910         |                  | 170,643         |                  | 142,911         |                  | 811,143          |                         |
| 0%                     | Storage        |                  | 0               |                  | 0               |                  | 0               |                  | 0               |                  | 0               |                  | 0                |                         |
| 70%                    | Index          |                  | 410,509         |                  | 634,865         |                  | 696,185         |                  | 597,250         |                  | 500,190         |                  | 2,839,000        |                         |
| Contracts              | May-19         | 1                | 10,000          | 2                | 20,000          | 2                | 20,000          | 2                | 20,000          | 2                | 20,000          | 9                | 90,000           |                         |
|                        | Jun-19         | 1                | 10,000          | 2                | 20,000          | 2                | 20,000          | 2                | 20,000          | 1                | 10,000          | 8                | 80,000           |                         |
|                        | Jul-19         | 1                | 10,000          | 2                | 20,000          | 2                | 20,000          | 1                | 10,000          | 1                | 10,000          | 7                | 70,000           |                         |
|                        | Aug-19         | 1                | 10,000          | 1                | 10,000          | 1                | 10,000          | 1                | 10,000          | 1                | 10,000          | 5                | 50,000           |                         |
|                        | Sep-19         | 1                | 10,000          | 1                | 10,000          | 1                | 10,000          | 1                | 10,000          | 1                | 10,000          | 5                | 50,000           |                         |
|                        | Oct-19         | 0                | 0               | 1                | 10,000          | 1                | 10,000          | 1                | 10,000          | 1                | 10,000          | 4                | 40,000           |                         |
|                        | <b>Total</b>   | <b>5</b>         | <b>50,000</b>   | <b>9</b>         | <b>90,000</b>   | <b>9</b>         | <b>90,000</b>   | <b>8</b>         | <b>80,000</b>   | <b>7</b>         | <b>70,000</b>   | <b>38</b>        | <b>380,000</b>   | <b>9.37%</b>            |
| Call Options           | May-19         | 2                | 20,000          | 3                | 30,000          | 4                | 40,000          | 3                | 30,000          | 3                | 30,000          | 15               | 150,000          |                         |
|                        | Jun-19         | 2                | 20,000          | 3                | 30,000          | 3                | 30,000          | 3                | 30,000          | 3                | 30,000          | 14               | 140,000          |                         |
|                        | Jul-19         | 2                | 20,000          | 3                | 30,000          | 3                | 30,000          | 3                | 30,000          | 2                | 20,000          | 13               | 130,000          |                         |
|                        | Aug-19         | 2                | 20,000          | 3                | 30,000          | 3                | 30,000          | 3                | 30,000          | 2                | 20,000          | 13               | 130,000          |                         |
|                        | Sep-19         | 2                | 20,000          | 3                | 30,000          | 3                | 30,000          | 3                | 30,000          | 2                | 20,000          | 13               | 130,000          |                         |
|                        | Oct-19         | 1                | 10,000          | 3                | 30,000          | 3                | 30,000          | 2                | 20,000          | 2                | 20,000          | 11               | 110,000          |                         |
|                        | <b>Total</b>   | <b>11</b>        | <b>110,000</b>  | <b>18</b>        | <b>180,000</b>  | <b>19</b>        | <b>190,000</b>  | <b>17</b>        | <b>170,000</b>  | <b>14</b>        | <b>140,000</b>  | <b>79</b>        | <b>790,000</b>   | <b>19.48%</b>           |
| Collars                | May-19         | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0                |                         |
|                        | Jun-19         | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0                |                         |
|                        | Jul-19         | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0                |                         |
|                        | Aug-19         | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0                |                         |
|                        | Sep-19         | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0                |                         |
|                        | Oct-19         | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0                |                         |
|                        | <b>Total</b>   | <b>0</b>         | <b>0</b>        | <b>0</b>         | <b>0</b>        | <b>0</b>         | <b>0</b>        | <b>0</b>         | <b>0</b>        | <b>0</b>         | <b>0</b>        | <b>0</b>         | <b>0</b>         | <b>0.00%</b>            |
| Index (back financial) | <b>Total</b>   |                  | <b>160,000</b>  |                  | <b>270,000</b>  |                  | <b>280,000</b>  |                  | <b>250,000</b>  |                  | <b>210,000</b>  |                  | <b>1,170,000</b> | <b>28.85%</b>           |
| Physical Hedges        |                |                  | 0               |                  | 0               |                  | 0               |                  | 0               |                  | 0               |                  | 0                |                         |
| Storage                |                |                  | 96,000          |                  | 189,100         |                  | 189,100         |                  | 196,000         |                  | 85,900          |                  | 756,100          | <b>18.64%</b>           |
| Prepaid Obl            |                |                  | 0               |                  | 0               |                  | 0               |                  | 0               |                  | 0               |                  | 0                | <b>0.00%</b>            |
|                        |                |                  | 43.65%          |                  | 50.62%          |                  | 47.17%          |                  | 52.27%          |                  | 41.41%          |                  | 47.49%           | <b>47.49%</b>           |
| Term Index             | Aug-19         | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0                | <b>0.00%</b>            |
|                        | Sep-19         | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0                | <b>0.00%</b>            |
|                        | Oct-19         | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0               | 0                | 0                | <b>0.00%</b>            |
| Contracts              |                |                  |                 |                  |                 |                  |                 |                  |                 |                  |                 |                  | 380,000          | <b>9.37%</b>            |
| Call Options           |                |                  |                 |                  |                 |                  |                 |                  |                 |                  |                 |                  | 790,000          | <b>19.48%</b>           |



**MINNESOTA ENERGY RESOURCES - CONSOLIDATED**

**WINTER PLAN - CONSOLIDATED  
 NOVEMBER 2019 THROUGH MARCH 2020**

| <u>PHYSICAL FIXED PRICE HEDGES</u> | <u>Deal #</u> | <u>Trigger Locked</u> | <u>Trigger Exercised</u> | <u>Receipt Point</u> | <u>Daily Volumes</u> |            |            |            |            | <u>Monthly Total</u> |
|------------------------------------|---------------|-----------------------|--------------------------|----------------------|----------------------|------------|------------|------------|------------|----------------------|
|                                    |               |                       |                          |                      | <u>Nov</u>           | <u>Dec</u> | <u>Jan</u> | <u>Feb</u> | <u>Mar</u> |                      |
| No Physical Fixed Price Hedges     |               |                       |                          |                      |                      |            |            |            |            | -                    |
| Total Actual Fixed/Option Physical |               |                       |                          |                      | -                    | -          | -          | -          | -          | -                    |

**INDEX**

| <u>Contract Number</u>      | <u>Date</u> | <u>Receipt Point</u> | <u>Nov</u> | <u>Dec</u> | <u>Jan</u> | <u>Feb</u> | <u>Mar</u> | <u>Total</u> |
|-----------------------------|-------------|----------------------|------------|------------|------------|------------|------------|--------------|
| 77622                       | 4/23/2019   | VGT Emerson 1        | 4,000      | 4,000      | 4,000      | 4,000      | 4,000      | 608,000      |
| 77623                       | 4/23/2019   | VGT Emerson 1        |            | 4,000      | 4,000      | 4,000      |            | 364,000      |
| 77528                       | 4/24/2019   | Chisago              |            | 1,530      | 1,530      | 1,530      |            | 139,230      |
| 77631                       | 4/23/2019   | GLGT Emerson 2       | 5,000      | 5,000      | 5,000      | 5,000      | 5,000      | 760,000      |
| 77636                       | 4/23/2019   | GLGT Emerson 2       | 2,500      | 2,500      | 2,500      | 2,500      | 2,500      | 380,000      |
| 77638                       | 4/23/2019   | GLGT Emerson 2       |            | 3,500      | 3,500      | 3,500      |            | 318,500      |
| 77613                       | 4/23/2019   | CTHI-Spruce          | 2,000      | 2,000      | 2,000      | 2,000      | 2,000      | 304,000      |
| 77616                       | 4/23/2019   | CTHI-Spruce          |            | 2,000      | 2,000      | 2,000      |            | 182,000      |
| Total Actual Seasonal Index |             |                      | 13,500     | 24,530     | 24,530     | 24,530     | 13,500     | 3,055,730    |

**GAS DAILY PACKAGES**

|                      |       |           |                |       |       |       |       |       |
|----------------------|-------|-----------|----------------|-------|-------|-------|-------|-------|
| Physical Call Option | 77625 | 4/23/2019 | VGT Emerson 1  | 7,000 | 7,000 | 7,000 | 7,000 | 7,000 |
| Physical Call Option | 77617 | 4/23/2019 | CTHI-Spruce    | 2,500 | 2,500 | 2,500 | 2,500 | 2,500 |
| Physical Call Option | 77621 | 4/23/2019 | CTHI-Spruce    |       | 2,500 | 2,500 | 2,500 |       |
| Physical Call Option | 77640 | 4/23/2019 | GLGT Emerson 2 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |

**STORAGE**

| <u>Injection Month</u> | <u>Contract # ANR Volume Injected</u> | <u>Total Volume Injected</u> |
|------------------------|---------------------------------------|------------------------------|
| May - balance forward  | 216,029                               | 216,029                      |
| June                   | 108,014                               | 108,014                      |
| July                   | 108,014                               | 108,014                      |
| August                 | 108,014                               | 108,014                      |
| Sept                   | 108,014                               | 108,014                      |
| Oct                    | 108,014                               | 108,014                      |

|       |                |                |
|-------|----------------|----------------|
| Total | <b>756,100</b> | <b>756,100</b> |
|-------|----------------|----------------|

## MINNESOTA ENERGY RESOURCES - CONSOLIDATED

|   | 2015-2016<br>Consolidated<br>GS | 2016-2017<br>Consolidated<br>GS | 2017-2018<br>Consolidated<br>GS | 2018-2019<br>Consolidated<br>GS | 2019-2020<br>Consolidated<br>GS | Proposed<br>Change |
|---|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------|
| <b>Viking Gas Transmission (VGT)</b>                                      |                                 |                                 |                                 |                                 |                                 |                    |
| FT-A ZONE 1 - 1   | 14,493                          | 14,493                          | 14,493                          | 14,493                          | 14,493                          | 0                  |
| FT-A ZONE 1 - 1 Winter Only   | 1,098                           | 1,098                           | 1,098                           | 1,098                           | 1,098                           | 0                  |
| FA-A ZONE 1 - 1 Winter Only   | 0                               | 0                               | 1,500                           | 1,500                           | 1,500                           | 0                  |
| <b>Great Lakes Gas Transmission (GLGT)</b>                                |                                 |                                 |                                 |                                 |                                 |                    |
| FT Western Zone- Summer Only  | 10,130                          | 10,130                          | 10,130                          | 10,130                          | 10,130                          | 0                  |
| FT Western Zone- Annual   | 12,600                          | 12,600                          | 12,600                          | 12,600                          | 12,600                          | 0                  |
| FT Western Zone- Winter Only  | 3,728                           | 3,728                           | 3,728                           | 3,728                           | 3,728                           | 0                  |
| FT Western Zone- Winter Only*   | 13,480                          | 13,480                          | 15,030                          | 15,030                          | 15,030                          | 0                  |
| ANR Upstream  | 0                               | 0                               | 0                               | 15,000                          | 15,000                          | 0                  |
| <b>Centra Transmission Holding/Centra Minnesota Pipelines (CTHI/CPMI)</b> |                                 |                                 |                                 |                                 |                                 |                    |
| Centra FT-1   | 9,500                           | 9,500                           | 9,500                           | 9,500                           | 9,500                           | 0                  |
| Total VGT Transportation  | 15,591                          | 15,591                          | 17,091                          | 17,091                          | 17,091                          | 0                  |
| Total GLGT Transportation   | 29,808                          | 29,808                          | 31,358                          | 31,358                          | 31,358                          | 0                  |
| Total CTHI/CPMI Transportation  | 9,500                           | 9,500                           | 9,500                           | 9,500                           | 9,500                           | 0                  |
| Total Transportation  | 54,899                          | 54,899                          | 57,949                          | 57,949                          | 57,949                          | 0                  |
| Total Seasonal Transportation   | 8,176                           | 8,176                           | 11,226                          | 11,226                          | 11,226                          | 0                  |
| Total Seasonal Transportation %   | 14.89%                          | 14.89%                          | 19.37%                          | 19.37%                          | 19.37%                          | 0.00%              |
| <u>Other Entitlements not included in Peak Day Deliverability</u>         |                                 |                                 |                                 |                                 |                                 |                    |
| AECO Storage  | 947,820                         | 947,820                         | 0                               | 0                               | 0                               | 0                  |
| AECO/Emerson Swap   | 955,255                         | 758,254                         | 0                               | 0                               | 0                               | 0                  |
| ANR Storage   | 0                               | 0                               | 0                               | 756,100                         | 756,100                         | 0                  |



## MINNESOTA ENERGY RESOURCES - CONSOLIDATED

Change in Costs due to November 1, 2019 Change in Entitlement Levels and Related Demand Costs

|   | 2018/19<br>Entitlements | 2019/20<br>Entitlements | Entitlement<br>Change | 2019/20<br>Rate | Months | 2018/19<br>Total Annual Cost | 2019/20<br>Total Annual Cost | Total Annual Cost<br>Change |
|---|-------------------------|-------------------------|-----------------------|-----------------|--------|------------------------------|------------------------------|-----------------------------|
| <b>Costs Assigned in Demand Charge</b>    |                         |                         |                       |                 |        |                              |                              |                             |
| <u>Viking Pipeline</u>                    |                         |                         |                       |                 |        |                              |                              |                             |
| FT-A ZONE 1 - 1AF0012                     | 14,493                  | 14,493                  | 0 \$                  | 4.3706          | 12     | \$760,117                    | \$760,117                    | \$0                         |
| FT-A ZONE 1 - 1AF0012                     | 1,098                   | 1,098                   | 0 \$                  | 4.3706          | 3      | \$14,397                     | \$14,397                     | \$0                         |
| FT-A ZONE 1 - 1AF0321                     | 1,500                   | 1,500                   | 0 \$                  | 4.3706          | 3      | \$19,668                     | \$19,668                     | \$0                         |
| <u>GLGTPipeline</u>                       |                         |                         |                       |                 |        |                              |                              |                             |
| FT Western ZoneFT19131                    | 10,130                  | 10,130                  | 0 \$                  | 2.8100          | 7      | \$199,257                    | \$199,257                    | \$0                         |
| FT Western ZoneFT18528                    | 12,600                  | 12,600                  | 0 \$                  | 2.8100          | 12     | \$424,872                    | \$424,872                    | \$0                         |
| FT Western ZoneFT18528 (5)                | 3,728                   | 3,728                   | 0 \$                  | 2.8100          | 5      | \$52,378                     | \$52,378                     | \$0                         |
| FT Eastern to Western ZoneFT19129 (5)     | 15,030                  | 15,030                  | 0 \$                  | 6.1000          | 5      | \$458,415                    | \$458,415                    | \$0                         |
| ANR Upstream130504                        | 15,000                  | 15,000                  | 0 \$                  | 0.9110          | 5      | \$68,325                     | \$68,325                     | \$0                         |
| <u>CENTRA Pipeline</u>                    |                         |                         |                       |                 |        |                              |                              |                             |
| CENTRA TRANSMISSION                       | 9,500                   | 9,500                   | 0 \$                  | 14.1070         | 12     | \$1,608,198                  | \$1,608,198                  | \$0                         |
| CENTRA MINNESOTA PIPELINES                | 9,500                   | 9,500                   | 0 \$                  | 3.2990          | 12     | \$376,086                    | \$376,086                    | \$0                         |
| Total Costs Assigned to Demand Charge     |                         |                         |                       |                 |        | <b>\$3,981,713</b>           | <b>\$3,981,713</b>           | <b>\$0</b>                  |
| <b>Costs Assigned in Commodity Charge</b> |                         |                         |                       |                 |        |                              |                              |                             |
| <u>Storage Service</u>                    |                         |                         |                       |                 |        |                              |                              |                             |
| Niska Storage (AECO)                      | 0                       | 0                       | 0 \$                  | -               | 0      | \$0                          | \$0                          | \$0                         |
| Niska Storage Assignment                  | 0                       | 0                       | 0 \$                  | -               | 0      | \$0                          | \$0                          | \$0                         |
| ANR Pipeline Storage                      | 756,100                 | 756,100                 | 0 \$                  | 0.7000          | 12     | \$529,270                    | \$529,270                    | \$0                         |
| <u>Balancing</u>                          |                         |                         |                       |                 |        |                              |                              |                             |
| VGT Balancing Agreement                   | 7,465                   | 7,465                   | 0 \$                  | 1.0000          | 12     | \$89,580                     | \$89,580                     | \$0                         |
| Union Balancing                           | 10,000                  | 10,000                  | 0 \$                  | 0.4500          | 12     | \$54,000                     | \$54,000                     | \$0                         |
| Physical Forward Start Premium            |                         |                         |                       |                 |        | \$94,875                     | \$140,135                    | \$45,260                    |
| Call Options Premium                      |                         |                         |                       |                 |        | \$76,864                     | \$78,042                     | \$1,178                     |
| Total Costs Assigned to Commodity Charge  |                         |                         |                       |                 |        | <b>\$844,589</b>             | <b>\$891,027</b>             | <b>\$46,438</b>             |

# MINNESOTA ENERGY RESOURCES - Consolidated

Daily Total Throughput Data - July 1, 2018 through June 30, 2019

Design Day:

|          |     |
|----------|-----|
| Base     | 922 |
| Variable | 511 |

| Date    | 28.53%<br>Bemidji<br>Adjusted<br>HDD | 13.34%<br>Cloquet<br>Adjusted<br>HDD | 35.13%<br>Fargo<br>Adjusted<br>HDD | 23.00%<br>Intl. Falls<br>Adjusted<br>HDD | 100.00%<br>Weighted<br>Adjusted<br>HDD | Actual<br>Total<br>Through-<br>Put * | Estimated<br>Firm<br>Through-<br>Put ** |
|---------|--------------------------------------|--------------------------------------|------------------------------------|--|--|--------------------------------------|---|
| 7/1/18  | 0                                    | 4                                    | 0                                  | 3  | 1                                      | 15,049                               | 1,545                                   |
| 7/2/18  | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 16,098                               | 922                                     |
| 7/3/18  | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 13,104                               | 922                                     |
| 7/4/18  | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 9,676                                | 922                                     |
| 7/5/18  | 4                                    | 2                                    | 0                                  | 4  | 2                                      | 11,705                               | 2,090                                   |
| 7/6/18  | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 12,481                               | 922                                     |
| 7/7/18  | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 11,755                               | 922                                     |
| 7/8/18  | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 13,006                               | 922                                     |
| 7/9/18  | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 18,971                               | 922                                     |
| 7/10/18 | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 21,909                               | 922                                     |
| 7/11/18 | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 21,286                               | 922                                     |
| 7/12/18 | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 19,750                               | 922                                     |
| 7/13/18 | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 14,879                               | 922                                     |
| 7/14/18 | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 12,990                               | 922                                     |
| 7/15/18 | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 14,145                               | 922                                     |
| 7/16/18 | 7                                    | 1                                    | 0                                  | 9  | 4                                      | 20,930                               | 2,985                                   |
| 7/17/18 | 4                                    | 4                                    | 0                                  | 4  | 2                                      | 20,555                               | 2,160                                   |
| 7/18/18 | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 22,750                               | 922                                     |
| 7/19/18 | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 19,101                               | 922                                     |
| 7/20/18 | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 14,178                               | 922                                     |
| 7/21/18 | 0                                    | 0                                    | 0                                  | 1  | 0                                      | 13,260                               | 1,051                                   |
| 7/22/18 | 0                                    | 3                                    | 0                                  | 0  | 0                                      | 13,547                               | 1,133                                   |
| 7/23/18 | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 18,226                               | 922                                     |
| 7/24/18 | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 18,701                               | 922                                     |
| 7/25/18 | 1                                    | 0                                    | 0                                  | 4  | 1                                      | 19,647                               | 1,529                                   |
| 7/26/18 | 11                                   | 11                                   | 6                                  | 10                                       | 9                                      | 16,811                               | 5,375                                   |
| 7/27/18 | 5                                    | 3                                    | 1                                  | 5  | 3                                      | 13,244                               | 2,627                                   |
| 7/28/18 | 1                                    | 0                                    | 0                                  | 1  | 1                                      | 11,421                               | 1,185                                   |
| 7/29/18 | 3                                    | 0                                    | 0                                  | 0  | 1                                      | 13,372                               | 1,301                                   |
| 7/30/18 | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 16,956                               | 922                                     |
| 7/31/18 | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 19,067                               | 922                                     |
| 8/1/18  | 14                                   | 7                                    | 15                                 | 17                                       | 14                                     | 20,118                               | 8,234                                   |
| 8/2/18  | 3                                    | 8                                    | 0                                  | 5  | 3                                      | 18,628                               | 2,479                                   |
| 8/3/18  | 0                                    | 3                                    | 0                                  | 0  | 0                                      | 13,713                               | 1,106                                   |
| 8/4/18  | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 12,010                               | 922                                     |
| 8/5/18  | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 13,955                               | 922                                     |
| 8/6/18  | 5                                    | 4                                    | 0                                  | 11                                       | 4                                      | 20,852                               | 3,188                                   |
| 8/7/18  | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 20,527                               | 922                                     |
| 8/8/18  | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 19,935                               | 922                                     |
| 8/9/18  | 0                                    | 0                                    | 0                                  | 0  | 0                                      | 18,469                               | 922                                     |

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|         |    |    |    |    |    |        |        |
|---------|----|----|----|----|----|--------|--------|
| 8/10/18 | 0  | 0  | 0  | 0  | 0  | 13,143 | 922    |
| 8/11/18 | 0  | 0  | 0  | 0  | 0  | 10,774 | 922    |
| 8/12/18 | 0  | 0  | 0  | 0  | 0  | 11,562 | 922    |
| 8/13/18 | 0  | 0  | 0  | 0  | 0  | 16,576 | 922    |
| 8/14/18 | 8  | 0  | 4  | 8  | 6  | 19,833 | 3,906  |
| 8/15/18 | 4  | 0  | 0  | 4  | 2  | 21,303 | 1,931  |
| 8/16/18 | 0  | 0  | 0  | 0  | 0  | 19,574 | 922    |
| 8/17/18 | 0  | 0  | 0  | 0  | 0  | 13,966 | 922    |
| 8/18/18 | 0  | 0  | 0  | 0  | 0  | 12,433 | 922    |
| 8/19/18 | 1  | 0  | 4  | 3  | 2  | 13,919 | 2,159  |
| 8/20/18 | 2  | 4  | 0  | 2  | 1  | 19,296 | 1,596  |
| 8/21/18 | 4  | 5  | 1  | 6  | 4  | 21,350 | 2,714  |
| 8/22/18 | 0  | 0  | 0  | 0  | 0  | 21,642 | 922    |
| 8/23/18 | 0  | 0  | 0  | 0  | 0  | 17,200 | 922    |
| 8/24/18 | 0  | 2  | 0  | 2  | 1  | 20,538 | 1,271  |
| 8/25/18 | 0  | 0  | 0  | 0  | 0  | 13,491 | 922    |
| 8/26/18 | 4  | 0  | 2  | 0  | 2  | 14,545 | 1,781  |
| 8/27/18 | 11 | 0  | 8  | 11 | 9  | 21,086 | 5,355  |
| 8/28/18 | 15 | 14 | 12 | 18 | 15 | 21,712 | 8,417  |
| 8/29/18 | 6  | 7  | 1  | 9  | 5  | 20,656 | 3,571  |
| 8/30/18 | 0  | 2  | 0  | 0  | 0  | 17,417 | 1,031  |
| 8/31/18 | 0  | 0  | 0  | 0  | 0  | 11,944 | 922    |
| 9/1/18  | 3  | 0  | 0  | 4  | 2  | 10,444 | 1,783  |
| 9/2/18  | 9  | 5  | 4  | 10 | 7  | 10,992 | 4,433  |
| 9/3/18  | 0  | 0  | 0  | 1  | 0  | 11,647 | 981    |
| 9/4/18  | 4  | 2  | 2  | 4  | 3  | 20,200 | 2,380  |
| 9/5/18  | 16 | 14 | 8  | 18 | 13 | 21,432 | 7,751  |
| 9/6/18  | 5  | 6  | 0  | 7  | 4  | 18,520 | 2,942  |
| 9/7/18  | 4  | 3  | 0  | 5  | 2  | 14,355 | 2,191  |
| 9/8/18  | 3  | 10 | 0  | 3  | 3  | 13,787 | 2,361  |
| 9/9/18  | 2  | 8  | 0  | 2  | 2  | 15,563 | 1,989  |
| 9/10/18 | 3  | 2  | 0  | 4  | 2  | 19,934 | 1,904  |
| 9/11/18 | 0  | 0  | 0  | 0  | 0  | 19,551 | 922    |
| 9/12/18 | 3  | 0  | 0  | 1  | 1  | 19,431 | 1,459  |
| 9/13/18 | 1  | 0  | 2  | 0  | 1  | 17,972 | 1,300  |
| 9/14/18 | 0  | 0  | 0  | 3  | 1  | 15,365 | 1,298  |
| 9/15/18 | 2  | 2  | 0  | 0  | 1  | 13,281 | 1,352  |
| 9/16/18 | 0  | 0  | 0  | 0  | 0  | 13,996 | 922    |
| 9/17/18 | 16 | 8  | 14 | 14 | 14 | 18,144 | 7,987  |
| 9/18/18 | 13 | 13 | 8  | 16 | 12 | 17,237 | 7,016  |
| 9/19/18 | 12 | 12 | 9  | 9  | 10 | 17,045 | 6,115  |
| 9/20/18 | 19 | 14 | 18 | 18 | 18 | 19,830 | 10,003 |
| 9/21/18 | 17 | 20 | 13 | 21 | 17 | 20,931 | 9,503  |
| 9/22/18 | 14 | 12 | 9  | 19 | 13 | 18,176 | 7,584  |
| 9/23/18 | 19 | 17 | 10 | 21 | 16 | 19,746 | 9,016  |
| 9/24/18 | 17 | 9  | 20 | 15 | 17 | 25,265 | 9,366  |
| 9/25/18 | 25 | 23 | 18 | 24 | 22 | 31,813 | 12,168 |
| 9/26/18 | 20 | 17 | 15 | 20 | 18 | 25,994 | 9,968  |
| 9/27/18 | 27 | 20 | 23 | 23 | 24 | 25,331 | 13,116 |
| 9/28/18 | 35 | 27 | 30 | 31 | 31 | 26,606 | 16,903 |
| 9/29/18 | 29 | 27 | 27 | 27 | 28 | 24,009 | 15,059 |
| 9/30/18 | 26 | 20 | 25 | 29 | 25 | 23,179 | 13,930 |

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|          |    |    |    |    |    |        |        |
|----------|----|----|----|----|----|--------|--------|
| 10/1/18  | 23 | 21 | 20 | 27 | 23 | 29,082 | 12,502 |
| 10/2/18  | 16 | 17 | 16 | 19 | 17 | 26,656 | 9,402  |
| 10/3/18  | 28 | 25 | 27 | 26 | 27 | 32,309 | 14,590 |
| 10/4/18  | 30 | 26 | 29 | 30 | 29 | 32,460 | 15,732 |
| 10/5/18  | 32 | 26 | 29 | 28 | 29 | 28,816 | 15,787 |
| 10/6/18  | 31 | 26 | 31 | 30 | 30 | 30,223 | 16,145 |
| 10/7/18  | 27 | 24 | 25 | 26 | 25 | 36,757 | 13,912 |
| 10/8/18  | 29 | 21 | 27 | 27 | 27 | 42,229 | 14,646 |
| 10/9/18  | 33 | 27 | 32 | 30 | 31 | 44,875 | 16,732 |
| 10/10/18 | 40 | 34 | 42 | 38 | 39 | 51,238 | 20,955 |
| 10/11/18 | 45 | 38 | 44 | 38 | 42 | 44,464 | 22,545 |
| 10/12/18 | 37 | 35 | 35 | 37 | 36 | 30,105 | 19,187 |
| 10/13/18 | 33 | 28 | 30 | 33 | 31 | 29,626 | 16,974 |
| 10/14/18 | 39 | 35 | 42 | 36 | 39 | 37,183 | 20,753 |
| 10/15/18 | 33 | 33 | 32 | 33 | 33 | 38,386 | 17,584 |
| 10/16/18 | 38 | 33 | 32 | 37 | 35 | 49,096 | 18,746 |
| 10/17/18 | 33 | 34 | 28 | 37 | 32 | 40,396 | 17,499 |
| 10/18/18 | 10 | 16 | 11 | 9  | 11 | 25,079 | 6,556  |
| 10/19/18 | 27 | 25 | 25 | 29 | 26 | 26,247 | 14,400 |
| 10/20/18 | 38 | 37 | 33 | 37 | 36 | 31,865 | 19,352 |
| 10/21/18 | 25 | 28 | 22 | 28 | 25 | 28,006 | 13,645 |
| 10/22/18 | 31 | 25 | 31 | 28 | 30 | 36,475 | 16,097 |
| 10/23/18 | 31 | 32 | 31 | 33 | 32 | 37,318 | 17,045 |
| 10/24/18 | 28 | 25 | 24 | 26 | 26 | 31,549 | 13,974 |
| 10/25/18 | 21 | 23 | 18 | 20 | 20 | 27,969 | 11,007 |
| 10/26/18 | 22 | 22 | 24 | 23 | 23 | 24,722 | 12,631 |
| 10/27/18 | 23 | 23 | 27 | 23 | 24 | 24,937 | 13,441 |
| 10/28/18 | 29 | 24 | 25 | 28 | 27 | 29,395 | 14,634 |
| 10/29/18 | 28 | 27 | 25 | 27 | 27 | 34,864 | 14,552 |
| 10/30/18 | 26 | 26 | 25 | 26 | 26 | 34,520 | 14,017 |
| 10/31/18 | 34 | 32 | 32 | 33 | 33 | 32,861 | 17,606 |
| 11/1/18  | 37 | 32 | 31 | 35 | 34 | 35,533 | 18,164 |
| 11/2/18  | 35 | 35 | 27 | 32 | 31 | 30,761 | 17,010 |
| 11/3/18  | 34 | 32 | 27 | 37 | 32 | 29,664 | 17,231 |
| 11/4/18  | 29 | 32 | 27 | 29 | 29 | 29,747 | 15,559 |
| 11/5/18  | 31 | 30 | 31 | 30 | 31 | 39,422 | 16,614 |
| 11/6/18  | 43 | 36 | 45 | 38 | 42 | 43,492 | 22,191 |
| 11/7/18  | 51 | 45 | 51 | 46 | 49 | 57,033 | 26,121 |
| 11/8/18  | 56 | 50 | 56 | 48 | 53 | 55,490 | 28,069 |
| 11/9/18  | 64 | 57 | 60 | 59 | 60 | 55,118 | 31,708 |
| 11/10/18 | 57 | 50 | 55 | 54 | 54 | 50,846 | 28,736 |
| 11/11/18 | 58 | 48 | 52 | 51 | 53 | 48,985 | 28,045 |
| 11/12/18 | 67 | 61 | 57 | 62 | 62 | 60,755 | 32,509 |
| 11/13/18 | 57 | 56 | 54 | 57 | 56 | 61,944 | 29,483 |
| 11/14/18 | 40 | 43 | 36 | 40 | 39 | 50,820 | 20,834 |
| 11/15/18 | 45 | 38 | 41 | 39 | 41 | 44,712 | 21,987 |
| 11/16/18 | 57 | 49 | 60 | 56 | 57 | 48,314 | 29,994 |
| 11/17/18 | 61 | 56 | 62 | 58 | 60 | 50,853 | 31,656 |
| 11/18/18 | 53 | 49 | 54 | 54 | 53 | 48,042 | 28,162 |
| 11/19/18 | 66 | 64 | 65 | 65 | 65 | 59,239 | 34,079 |
| 11/20/18 | 53 | 53 | 45 | 65 | 53 | 54,384 | 28,051 |
| 11/21/18 | 56 | 54 | 48 | 57 | 53 | 49,644 | 28,083 |

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|          |    |    |    |    |    |        |        |
|----------|----|----|----|----|----|--------|--------|
| 11/22/18 | 42 | 41 | 40 | 40 | 41 | 37,792 | 21,816 |
| 11/23/18 | 34 | 27 | 40 | 32 | 35 | 32,449 | 18,678 |
| 11/24/18 | 53 | 43 | 55 | 50 | 52 | 43,972 | 27,363 |
| 11/25/18 | 60 | 55 | 61 | 59 | 60 | 55,590 | 31,340 |
| 11/26/18 | 62 | 57 | 63 | 59 | 61 | 67,343 | 31,992 |
| 11/27/18 | 57 | 54 | 55 | 54 | 55 | 65,745 | 29,102 |
| 11/28/18 | 49 | 49 | 46 | 49 | 48 | 59,441 | 25,451 |
| 11/29/18 | 41 | 40 | 36 | 41 | 39 | 53,084 | 20,995 |
| 11/30/18 | 40 | 38 | 38 | 42 | 39 | 45,833 | 21,037 |
| 12/1/18  | 47 | 42 | 45 | 46 | 46 | 46,710 | 24,208 |
| 12/2/18  | 48 | 45 | 47 | 47 | 47 | 48,223 | 24,848 |
| 12/3/18  | 48 | 50 | 46 | 48 | 48 | 58,179 | 25,231 |
| 12/4/18  | 48 | 47 | 43 | 47 | 46 | 56,903 | 24,424 |
| 12/5/18  | 63 | 48 | 61 | 60 | 60 | 60,566 | 31,397 |
| 12/6/18  | 63 | 61 | 60 | 69 | 63 | 64,387 | 33,100 |
| 12/7/18  | 58 | 55 | 51 | 60 | 56 | 57,300 | 29,479 |
| 12/8/18  | 53 | 52 | 51 | 51 | 52 | 49,757 | 27,345 |
| 12/9/18  | 50 | 46 | 50 | 55 | 51 | 49,278 | 26,806 |
| 12/10/18 | 51 | 51 | 43 | 52 | 49 | 51,745 | 25,722 |
| 12/11/18 | 52 | 49 | 44 | 51 | 49 | 52,451 | 25,741 |
| 12/12/18 | 45 | 40 | 41 | 40 | 42 | 52,165 | 22,312 |
| 12/13/18 | 38 | 44 | 40 | 42 | 40 | 49,209 | 21,580 |
| 12/14/18 | 37 | 33 | 39 | 38 | 37 | 41,918 | 19,854 |
| 12/15/18 | 32 | 33 | 33 | 31 | 32 | 38,460 | 17,399 |
| 12/16/18 | 52 | 40 | 45 | 51 | 48 | 44,961 | 25,334 |
| 12/17/18 | 49 | 44 | 46 | 53 | 48 | 51,966 | 25,568 |
| 12/18/18 | 37 | 36 | 38 | 42 | 38 | 44,699 | 20,402 |
| 12/19/18 | 37 | 34 | 37 | 38 | 37 | 41,948 | 19,680 |
| 12/20/18 | 51 | 46 | 49 | 51 | 49 | 48,100 | 26,173 |
| 12/21/18 | 52 | 51 | 47 | 58 | 52 | 45,150 | 27,301 |
| 12/22/18 | 46 | 43 | 45 | 48 | 46 | 41,366 | 24,354 |
| 12/23/18 | 56 | 51 | 56 | 51 | 54 | 44,943 | 28,602 |
| 12/24/18 | 54 | 47 | 51 | 55 | 52 | 42,225 | 27,503 |
| 12/25/18 | 57 | 48 | 62 | 63 | 59 | 44,018 | 31,114 |
| 12/26/18 | 51 | 48 | 57 | 58 | 54 | 48,171 | 28,561 |
| 12/27/18 | 56 | 46 | 70 | 56 | 60 | 49,384 | 31,360 |
| 12/28/18 | 75 | 69 | 78 | 76 | 75 | 59,781 | 39,478 |
| 12/29/18 | 67 | 62 | 68 | 66 | 66 | 54,271 | 34,864 |
| 12/30/18 | 53 | 46 | 63 | 56 | 56 | 46,723 | 29,669 |
| 12/31/18 | 80 | 67 | 88 | 82 | 82 | 61,435 | 42,632 |
| 1/1/19   | 80 | 71 | 78 | 82 | 78 | 65,141 | 40,935 |
| 1/2/19   | 52 | 59 | 50 | 53 | 52 | 58,128 | 27,663 |
| 1/3/19   | 38 | 38 | 38 | 36 | 37 | 50,572 | 20,062 |
| 1/4/19   | 36 | 35 | 37 | 40 | 37 | 49,151 | 19,894 |
| 1/5/19   | 46 | 45 | 46 | 46 | 46 | 48,469 | 24,425 |
| 1/6/19   | 48 | 43 | 43 | 48 | 46 | 49,759 | 24,202 |
| 1/7/19   | 47 | 39 | 45 | 44 | 44 | 53,090 | 23,610 |
| 1/8/19   | 73 | 63 | 70 | 64 | 69 | 68,502 | 35,964 |
| 1/9/19   | 69 | 64 | 65 | 70 | 67 | 69,579 | 35,175 |
| 1/10/19  | 59 | 56 | 57 | 60 | 58 | 62,814 | 30,619 |
| 1/11/19  | 53 | 47 | 57 | 49 | 52 | 51,342 | 27,739 |
| 1/12/19  | 44 | 41 | 43 | 47 | 44 | 47,484 | 23,334 |

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|         |     |     |     |     |     |        |        |
|---------|-----|-----|-----|-----|-----|--------|--------|
| 1/13/19 | 45  | 40  | 46  | 44  | 44  | 48,373 | 23,500 |
| 1/14/19 | 48  | 49  | 49  | 52  | 50  | 57,076 | 26,257 |
| 1/15/19 | 66  | 62  | 62  | 70  | 65  | 67,197 | 34,102 |
| 1/16/19 | 70  | 66  | 66  | 71  | 68  | 72,177 | 35,836 |
| 1/17/19 | 71  | 68  | 66  | 74  | 70  | 71,724 | 36,556 |
| 1/18/19 | 86  | 77  | 82  | 90  | 84  | 73,895 | 44,025 |
| 1/19/19 | 83  | 78  | 75  | 87  | 80  | 73,323 | 41,893 |
| 1/20/19 | 84  | 72  | 73  | 86  | 79  | 72,524 | 41,442 |
| 1/21/19 | 66  | 64  | 61  | 66  | 64  | 68,781 | 33,569 |
| 1/22/19 | 65  | 57  | 65  | 60  | 63  | 63,865 | 33,064 |
| 1/23/19 | 68  | 56  | 72  | 63  | 67  | 66,680 | 35,024 |
| 1/24/19 | 94  | 80  | 82  | 91  | 87  | 79,333 | 45,492 |
| 1/25/19 | 85  | 85  | 80  | 91  | 85  | 78,190 | 44,231 |
| 1/26/19 | 87  | 83  | 82  | 93  | 86  | 75,643 | 44,893 |
| 1/27/19 | 86  | 82  | 80  | 94  | 85  | 75,452 | 44,467 |
| 1/28/19 | 85  | 75  | 82  | 85  | 82  | 79,794 | 43,058 |
| 1/29/19 | 110 | 104 | 105 | 103 | 106 | 99,262 | 55,193 |
| 1/30/19 | 98  | 97  | 94  | 102 | 97  | 96,765 | 50,651 |
| 1/31/19 | 88  | 84  | 82  | 89  | 86  | 86,105 | 44,756 |
| 2/1/19  | 62  | 64  | 63  | 64  | 63  | 69,297 | 33,026 |
| 2/2/19  | 49  | 52  | 59  | 53  | 54  | 57,972 | 28,459 |
| 2/3/19  | 62  | 47  | 80  | 63  | 66  | 59,308 | 34,858 |
| 2/4/19  | 77  | 67  | 83  | 78  | 78  | 76,237 | 40,696 |
| 2/5/19  | 71  | 64  | 76  | 66  | 70  | 75,615 | 36,936 |
| 2/6/19  | 65  | 54  | 81  | 61  | 68  | 70,718 | 35,735 |
| 2/7/19  | 84  | 72  | 96  | 77  | 85  | 77,691 | 44,373 |
| 2/8/19  | 91  | 80  | 86  | 91  | 88  | 78,437 | 45,664 |
| 2/9/19  | 79  | 70  | 76  | 79  | 77  | 72,316 | 40,147 |
| 2/10/19 | 66  | 57  | 72  | 75  | 69  | 65,122 | 36,174 |
| 2/11/19 | 56  | 53  | 57  | 57  | 56  | 66,513 | 29,474 |
| 2/12/19 | 58  | 54  | 64  | 57  | 60  | 67,559 | 31,348 |
| 2/13/19 | 55  | 51  | 67  | 52  | 58  | 62,899 | 30,632 |
| 2/14/19 | 79  | 65  | 81  | 66  | 75  | 68,882 | 39,168 |
| 2/15/19 | 73  | 65  | 75  | 73  | 72  | 67,074 | 37,878 |
| 2/16/19 | 65  | 59  | 64  | 66  | 64  | 59,233 | 33,735 |
| 2/17/19 | 64  | 61  | 72  | 71  | 68  | 59,572 | 35,653 |
| 2/18/19 | 71  | 63  | 73  | 68  | 70  | 69,962 | 36,644 |
| 2/19/19 | 66  | 58  | 66  | 62  | 64  | 67,500 | 33,600 |
| 2/20/19 | 53  | 50  | 57  | 52  | 54  | 60,035 | 28,359 |
| 2/21/19 | 52  | 48  | 61  | 47  | 53  | 54,840 | 28,241 |
| 2/22/19 | 51  | 50  | 57  | 47  | 52  | 52,312 | 27,505 |
| 2/23/19 | 54  | 45  | 57  | 47  | 52  | 51,852 | 27,603 |
| 2/24/19 | 87  | 76  | 84  | 81  | 83  | 70,669 | 43,387 |
| 2/25/19 | 82  | 75  | 76  | 84  | 79  | 80,909 | 41,511 |
| 2/26/19 | 69  | 66  | 74  | 72  | 71  | 74,284 | 37,363 |
| 2/27/19 | 68  | 68  | 76  | 64  | 70  | 72,842 | 36,594 |
| 2/28/19 | 63  | 59  | 61  | 59  | 61  | 62,372 | 31,926 |
| 3/1/19  | 69  | 60  | 68  | 68  | 67  | 59,257 | 35,179 |
| 3/2/19  | 79  | 74  | 81  | 81  | 80  | 64,031 | 41,579 |
| 3/3/19  | 83  | 79  | 83  | 80  | 82  | 67,669 | 42,651 |
| 3/4/19  | 73  | 72  | 70  | 69  | 71  | 68,513 | 37,101 |
| 3/5/19  | 73  | 68  | 67  | 70  | 70  | 64,488 | 36,464 |

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|         |    |    |    |    |    |        |        |
|---------|----|----|----|----|----|--------|--------|
| 3/6/19  | 73 | 66 | 70 | 76 | 72 | 66,365 | 37,565 |
| 3/7/19  | 57 | 56 | 64 | 57 | 59 | 56,815 | 31,182 |
| 3/8/19  | 43 | 43 | 46 | 46 | 45 | 50,185 | 23,762 |
| 3/9/19  | 44 | 37 | 50 | 38 | 44 | 47,586 | 23,266 |
| 3/10/19 | 62 | 54 | 62 | 59 | 60 | 55,519 | 31,697 |
| 3/11/19 | 52 | 49 | 62 | 52 | 55 | 56,455 | 29,032 |
| 3/12/19 | 34 | 38 | 38 | 32 | 36 | 47,735 | 19,119 |
| 3/13/19 | 33 | 31 | 42 | 30 | 35 | 47,610 | 18,830 |
| 3/14/19 | 46 | 36 | 49 | 41 | 45 | 50,412 | 23,732 |
| 3/15/19 | 54 | 44 | 53 | 52 | 52 | 52,565 | 27,454 |
| 3/16/19 | 48 | 44 | 54 | 49 | 50 | 47,361 | 26,432 |
| 3/17/19 | 43 | 39 | 45 | 41 | 43 | 46,608 | 22,776 |
| 3/18/19 | 38 | 36 | 46 | 36 | 40 | 48,522 | 21,375 |
| 3/19/19 | 35 | 32 | 38 | 35 | 36 | 45,476 | 19,100 |
| 3/20/19 | 36 | 33 | 40 | 34 | 37 | 48,297 | 19,696 |
| 3/21/19 | 37 | 26 | 40 | 31 | 35 | 41,044 | 19,028 |
| 3/22/19 | 37 | 37 | 39 | 38 | 38 | 41,207 | 20,301 |
| 3/23/19 | 27 | 26 | 35 | 29 | 30 | 36,905 | 16,251 |
| 3/24/19 | 45 | 47 | 44 | 48 | 45 | 48,581 | 24,143 |
| 3/25/19 | 40 | 37 | 40 | 42 | 40 | 49,893 | 21,378 |
| 3/26/19 | 35 | 31 | 35 | 34 | 34 | 46,156 | 18,340 |
| 3/27/19 | 28 | 23 | 31 | 24 | 27 | 43,218 | 14,940 |
| 3/28/19 | 42 | 37 | 38 | 42 | 40 | 44,256 | 21,205 |
| 3/29/19 | 41 | 38 | 39 | 42 | 40 | 41,985 | 21,313 |
| 3/30/19 | 46 | 45 | 42 | 47 | 45 | 45,611 | 23,828 |
| 3/31/19 | 40 | 39 | 35 | 39 | 38 | 43,270 | 20,206 |
| 4/1/19  | 35 | 33 | 33 | 35 | 34 | 47,801 | 18,390 |
| 4/2/19  | 41 | 34 | 36 | 42 | 39 | 51,507 | 20,686 |
| 4/3/19  | 42 | 35 | 35 | 45 | 39 | 49,356 | 20,875 |
| 4/4/19  | 33 | 33 | 35 | 33 | 33 | 43,885 | 17,967 |
| 4/5/19  | 28 | 26 | 26 | 27 | 27 | 36,653 | 14,695 |
| 4/6/19  | 26 | 28 | 20 | 20 | 22 | 34,161 | 12,407 |
| 4/7/19  | 30 | 25 | 14 | 25 | 22 | 33,981 | 12,418 |
| 4/8/19  | 28 | 22 | 21 | 34 | 26 | 38,510 | 14,240 |
| 4/9/19  | 42 | 37 | 38 | 42 | 40 | 44,720 | 21,433 |
| 4/10/19 | 36 | 42 | 37 | 36 | 37 | 48,302 | 19,861 |
| 4/11/19 | 44 | 45 | 43 | 40 | 43 | 47,872 | 22,872 |
| 4/12/19 | 43 | 36 | 42 | 42 | 41 | 43,129 | 22,016 |
| 4/13/19 | 42 | 41 | 35 | 37 | 38 | 46,542 | 20,468 |
| 4/14/19 | 32 | 35 | 34 | 28 | 32 | 43,215 | 17,311 |
| 4/15/19 | 32 | 30 | 30 | 29 | 30 | 47,889 | 16,432 |
| 4/16/19 | 15 | 15 | 15 | 16 | 15 | 35,919 | 8,697  |
| 4/17/19 | 25 | 26 | 23 | 24 | 24 | 42,689 | 13,229 |
| 4/18/19 | 27 | 27 | 23 | 25 | 25 | 42,354 | 13,723 |
| 4/19/19 | 14 | 15 | 13 | 12 | 13 | 30,960 | 7,678  |
| 4/20/19 | 12 | 7  | 10 | 21 | 12 | 24,998 | 7,288  |
| 4/21/19 | 21 | 24 | 12 | 20 | 18 | 28,925 | 10,301 |
| 4/22/19 | 19 | 30 | 16 | 17 | 19 | 35,746 | 10,600 |
| 4/23/19 | 9  | 16 | 6  | 9  | 9  | 33,784 | 5,515  |
| 4/24/19 | 12 | 7  | 9  | 16 | 11 | 30,694 | 6,537  |
| 4/25/19 | 20 | 13 | 20 | 18 | 19 | 35,149 | 10,406 |
| 4/26/19 | 28 | 26 | 18 | 30 | 25 | 31,703 | 13,513 |

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|         |    |    |    |    |    |        |        |
|---------|----|----|----|----|----|--------|--------|
| 4/27/19 | 29 | 28 | 19 | 28 | 25 | 32,409 | 13,611 |
| 4/28/19 | 27 | 24 | 26 | 26 | 26 | 33,394 | 14,273 |
| 4/29/19 | 31 | 33 | 27 | 34 | 31 | 44,003 | 16,593 |
| 4/30/19 | 31 | 32 | 24 | 30 | 29 | 44,400 | 15,517 |
| 5/1/19  | 29 | 32 | 27 | 30 | 29 | 43,614 | 15,814 |
| 5/2/19  | 27 | 29 | 20 | 29 | 25 | 37,957 | 13,700 |
| 5/3/19  | 25 | 20 | 16 | 18 | 20 | 32,370 | 10,918 |
| 5/4/19  | 26 | 11 | 24 | 24 | 23 | 30,995 | 12,461 |
| 5/5/19  | 31 | 23 | 26 | 26 | 27 | 31,599 | 14,799 |
| 5/6/19  | 33 | 26 | 32 | 34 | 32 | 38,723 | 17,219 |
| 5/7/19  | 20 | 20 | 16 | 23 | 19 | 36,894 | 10,740 |
| 5/8/19  | 25 | 28 | 26 | 19 | 24 | 38,668 | 13,200 |
| 5/9/19  | 27 | 26 | 25 | 29 | 27 | 34,268 | 14,532 |
| 5/10/19 | 15 | 18 | 12 | 21 | 16 | 25,677 | 9,022  |
| 5/11/19 | 17 | 15 | 10 | 11 | 13 | 20,289 | 7,414  |
| 5/12/19 | 16 | 17 | 11 | 14 | 14 | 20,272 | 8,120  |
| 5/13/19 | 10 | 10 | 2  | 7  | 6  | 22,455 | 4,216  |
| 5/14/19 | 17 | 9  | 9  | 14 | 13 | 23,514 | 7,353  |
| 5/15/19 | 6  | 15 | 1  | 12 | 7  | 23,507 | 4,320  |
| 5/16/19 | 21 | 16 | 17 | 19 | 18 | 26,872 | 10,279 |
| 5/17/19 | 16 | 21 | 14 | 17 | 16 | 23,322 | 9,123  |
| 5/18/19 | 26 | 30 | 24 | 19 | 24 | 28,849 | 13,340 |
| 5/19/19 | 22 | 29 | 23 | 23 | 23 | 29,406 | 12,787 |
| 5/20/19 | 16 | 16 | 11 | 18 | 15 | 28,613 | 8,337  |
| 5/21/19 | 11 | 14 | 9  | 9  | 10 | 28,906 | 6,131  |
| 5/22/19 | 21 | 19 | 18 | 20 | 19 | 32,379 | 10,707 |
| 5/23/19 | 16 | 15 | 14 | 17 | 15 | 26,549 | 8,658  |
| 5/24/19 | 15 | 18 | 7  | 16 | 13 | 22,607 | 7,539  |
| 5/25/19 | 18 | 15 | 15 | 14 | 15 | 19,063 | 8,800  |
| 5/26/19 | 10 | 7  | 8  | 20 | 11 | 17,764 | 6,636  |
| 5/27/19 | 24 | 25 | 14 | 22 | 20 | 21,931 | 11,096 |
| 5/28/19 | 9  | 11 | 6  | 10 | 9  | 19,160 | 5,320  |
| 5/29/19 | 3  | 3  | 0  | 6  | 3  | 23,103 | 2,221  |
| 5/30/19 | 0  | 13 | 0  | 4  | 3  | 26,332 | 2,250  |
| 5/31/19 | 11 | 5  | 5  | 15 | 9  | 21,985 | 5,470  |
| 6/1/19  | 18 | 12 | 7  | 20 | 14 |        | 7,907  |
| 6/2/19  | 12 | 11 | 0  | 12 | 7  |        | 4,693  |
| 6/3/19  | 0  | 11 | 0  | 8  | 3  |        | 2,619  |
| 6/4/19  | 0  | 3  | 0  | 0  | 0  |        | 1,140  |
| 6/5/19  | 1  | 16 | 0  | 9  | 5  |        | 3,293  |
| 6/6/19  | 0  | 1  | 0  | 0  | 0  |        | 956    |
| 6/7/19  | 0  | 5  | 0  | 0  | 1  |        | 1,283  |
| 6/8/19  | 0  | 0  | 0  | 0  | 0  |        | 922    |
| 6/9/19  | 13 | 9  | 6  | 18 | 11 |        | 6,630  |
| 6/10/19 | 10 | 11 | 0  | 16 | 8  |        | 4,979  |
| 6/11/19 | 11 | 8  | 5  | 5  | 7  |        | 4,540  |
| 6/12/19 | 18 | 16 | 8  | 17 | 14 |        | 8,138  |
| 6/13/19 | 2  | 5  | 0  | 2  | 2  |        | 1,829  |
| 6/14/19 | 0  | 5  | 0  | 9  | 3  |        | 2,307  |
| 6/15/19 | 8  | 11 | 6  | 6  | 7  |        | 4,557  |
| 6/16/19 | 9  | 12 | 6  | 11 | 9  |        | 5,329  |
| 6/17/19 | 7  | 8  | 8  | 11 | 8  |        | 5,208  |



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|         |        |        |        |        |        |            |           |
|---------|--------|--------|--------|--------|--------|------------|-----------|
| 6/18/19 | 5      | 9      | 3      | 8      | 6      |            | 3,780     |
| 6/19/19 | 3      | 3      | 0      | 6      | 3      |            | 2,335     |
| 6/20/19 | 0      | 3      | 3      | 6      | 3      |            | 2,306     |
| 6/21/19 | 1      | 9      | 0      | 1      | 1      |            | 1,673     |
| 6/22/19 | 2      | 8      | 6      | 0      | 4      |            | 2,815     |
| 6/23/19 | 0      | 9      | 0      | 0      | 1      |            | 1,522     |
| 6/24/19 | 3      | 3      | 0      | 4      | 2      |            | 1,935     |
| 6/25/19 | 2      | 0      | 0      | 3      | 1      |            | 1,473     |
| 6/26/19 | 0      | 0      | 0      | 1      | 0      |            | 981       |
| 6/27/19 | 2      | 1      | 0      | 1      | 1      |            | 1,414     |
| 6/28/19 | 0      | 0      | 0      | 0      | 0      |            | 922       |
| 6/29/19 | 0      | 0      | 0      | 0      | 0      |            | 922       |
| 6/30/19 | 0      | 0      | 0      | 0      | 0      |            | 922       |
| Totals  | 11,506 | 10,672 | 10,993 | 11,480 | 11,208 | 13,230,760 | 6,064,003 |

\* Volumes include interruptible and transportation volumes

\*\* Design Model numbers are used to calculate firm volumes only

## MINNESOTA ENERGY RESOURCES - Consolidated

Customer Counts by PGAC Class - July 1, 2018 through June 30, 2019

| Tariff Rate Class                        | Rate Designation | Jul-18 Average Customers | Aug-18 Average Customers | Sep-18 Average Customers | Oct-18 Average Customers | Nov-18 Average Customers | Dec-18 Average Customers | Jan-19 Average Customers | Feb-19 Average Customers | Mar-19 Average Customers | Apr-19 Average Customers | May-19 Average Customers | Jun-19 Average Customers | Annual Average Customers |
|--|------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| GS- Residential                          | MERC000002       | 30,277                   | 30,357                   | 30,331                   | 30,362                   | 30,573                   | 29,253                   | 32,378                   | 30,542                   | 30,850                   | 30,713                   | 30,750                   | 30,724                   | 30,592                   |
| GS-C&I <1,500 therms/yr (Small)          | MERC000006       | 2,362                    | 2,359                    | 2,347                    | 2,338                    | 2,349                    | 2,275                    | 2,478                    | 2,353                    | 2,165                    | 2,157                    | 2,156                    | 2,156                    | 2,291                    |
| GS-C&I >1,500 therms/yr (Large)          | MERC000010       | 3,003                    | 3,008                    | 2,985                    | 3,023                    | 3,011                    | 2,860                    | 3,222                    | 3,055                    | 3,246                    | 3,265                    | 3,248                    | 3,238                    | 3,097                    |
| Small Volume Interruptible (SVI)         | MERC000017       | 67                       | 67                       | 69                       | 71                       | 67                       | 64                       | 62                       | 63                       | 63                       | 64                       | 70                       | 63                       | 66                       |
| Small Volume Interruptible w/Joint (SVJ) | MERC000021       | 3                        | 3                        | 3                        | 4                        | 9                        | 4                        | 3                        | 3                        | 3                        | 3                        | 3                        | 4                        | 4                        |
| Large Volume Interruptible (LVI)         | MERC000024       | 5                        | 5                        | 7                        | 3                        | 6                        | 5                        | 5                        | 5                        | 5                        | 5                        | 5                        | 5                        | 5                        |
| <b>Total</b>                             |                  | <b>35,717</b>            | <b>35,800</b>            | <b>35,743</b>            | <b>35,800</b>            | <b>36,015</b>            | <b>34,460</b>            | <b>38,149</b>            | <b>36,021</b>            | <b>36,332</b>            | <b>36,207</b>            | <b>36,232</b>            | <b>36,191</b>            | <b>36,055</b>            |



## MINNESOTA ENERGY RESOURCES - Consolidated

Projected Storage Cost - November 2019 through March 2020

| Month/<br>Year | K#118657<br>NNG<br>Storage (Dth) | LS Power<br>K#132024<br>NNG<br>Storage (Dth) | LS Power<br>K#133736<br>NNG<br>Storage (Dth) | Total<br>NNG<br>Storage (Dth) | Projected<br>NNG<br>WACOG | K#118657<br>NNG<br>Storage<br>Cost | K#132024<br>NNG<br>Storage<br>Cost | K#133736<br>NNG<br>Storage<br>Cost | Total<br>NNG<br>Storage<br>Cost | ANR<br>Storage<br>GLGT/VGT<br>(Dth) | ANR<br>Storage<br>GLGT/VGT<br>WACOG | ANR<br>Storage<br>GLGT/VGT<br>Cost |
|----------------|----------------------------------|--|--|-------------------------------|---------------------------|------------------------------------|------------------------------------|------------------------------------|---------------------------------|-------------------------------------|-------------------------------------|------------------------------------|
| Nov-19         | 489,384                          | 48,750                                       | 97,500                                       | 635,634                       | \$ 2.0452                 | \$ 1,000,875                       | \$ 99,702                          | \$ 199,404                         | \$ 1,299,982                    | 96,000                              | \$ 2.2000                           | \$ 211,200                         |
| Dec-19         | 1,229,734                        | 122,500                                      | 245,000                                      | 1,597,234                     | \$ 2.0452                 | \$ 2,515,020                       | \$ 250,534                         | \$ 501,068                         | \$ 3,266,621                    | 189,100                             | \$ 2.2000                           | \$ 416,020                         |
| Jan-20         | 1,229,734                        | 122,500                                      | 245,000                                      | 1,597,234                     | \$ 2.0452                 | \$ 2,515,020                       | \$ 250,534                         | \$ 501,068                         | \$ 3,266,621                    | 189,100                             | \$ 2.2000                           | \$ 416,020                         |
| Feb-20         | 1,229,734                        | 122,500                                      | 245,000                                      | 1,597,234                     | \$ 2.0452                 | \$ 2,515,020                       | \$ 250,534                         | \$ 501,068                         | \$ 3,266,621                    | 196,000                             | \$ 2.2000                           | \$ 431,200                         |
| Mar-20         | 489,384                          | 48,750                                       | 97,500                                       | 635,634                       | \$ 2.0452                 | \$ 1,000,875                       | \$ 99,702                          | \$ 199,404                         | \$ 1,299,982                    | 85,900                              | \$ 2.2000                           | \$ 188,980                         |
| <b>Total</b>   | <b>4,667,969</b>                 | <b>465,000</b>                               | <b>930,000</b>                               | <b>6,062,969</b>              |                           | <b>\$ 9,546,809</b>                | <b>\$ 951,006</b>                  | <b>\$ 1,902,012</b>                | <b>\$ 12,399,828</b>            | <b>756,100</b>                      |                                     | <b>\$ 1,663,420</b>                |

| Month/<br>Year                 | NNG<br>Storage<br>Volume (Dth) | NNG<br>Index<br>Price | NNG<br>Index<br>Cost | Month/<br>Year | ANR<br>Storage<br>Volume (Dth) | Emerson<br>Index<br>Price | Emerson<br>Market<br>Cost |
|--------------------------------|--------------------------------|-----------------------|----------------------|----------------|--------------------------------|---------------------------|---------------------------|
| Nov-19                         | 635,634                        | \$ 2.3245             | \$ 1,477,531         | Nov-19         | 96,000                         | \$ 2.3620                 | \$ 226,752                |
| Dec-19                         | 1,597,234                      | \$ 2.9720             | \$ 4,746,978         | Dec-19         | 189,100                        | \$ 2.7670                 | \$ 523,240                |
| Jan-20                         | 1,597,234                      | \$ 4.0620             | \$ 6,487,963         | Jan-20         | 189,100                        | \$ 3.0820                 | \$ 582,806                |
| Feb-20                         | 1,597,234                      | \$ 4.0140             | \$ 6,411,296         | Feb-20         | 196,000                        | \$ 3.0990                 | \$ 607,404                |
| Mar-20                         | 635,634                        | \$ 2.9500             | \$ 1,875,120         | Mar-20         | 85,900                         | \$ 2.7225                 | \$ 233,863                |
| <b>Total</b>                   | <b>6,062,969</b>               |                       | <b>\$ 20,998,888</b> | <b>Total</b>   | <b>756,100</b>                 |                           | <b>\$ 2,174,065</b>       |
| <b>Storage Savings (Cost):</b> |                                |                       | <b>\$ 8,599,060</b>  |                |                                |                           | <b>\$ 510,645</b>         |

\*Indexes and projected WACOG based on 10/23/19 market prices

