



414 Nicollet Mall
Minneapolis, MN 55401

DI 6@=7'8C7I A9BH
...BCHDI 6@=7'85H5 < 5G699B '9L7=C98'

5dfj`%ž&S%

J=5'9@97HFCB=7: =@=B;

8 UbjY'D'K c'Z
9l YMHj YGYMfm
A jbbYg'hdI VjW h'jYg'7ca a jggcb`
%&+^h' DUW9UžG jh') S`
Gh'DU žA jbbYg'hU)) %S%

F9: &S% '5BBI 5@F9DCFH5B8 'D9HHCB`
· C9FJ =79'EI 5@HMD9F: CFA5B79'5B8 'DFCDC98 'F9@=56=@HMA95G F9G`
· 8C7?9HBC "9SS&#A !% !SSS`

8 Yf'A f'K c'Z:

B cfh Yfb'GHUg'Dck Yf'7ca dUbnžXc]b| 'Vi g]bYgg'Ug'LW'9byf[nžg Va j]g'hY
YbW'gYX9 'Ym]W5bbi U'Gyf j]WE i U]mDYZcfa UbWFYdcfhiUbXDYh]hcb'cZ
B cfh Yfb'GHUg'Dck Yf'7ca dUbnžfYei Yg]b| 'hY7ca a jggcb UWWdici f'&S% fYdcfhi
UbXUddfcj Yci f'dfcdcgYXfY]U]]m]g'UbXfXg'Zcf'&S% ""

GYWf]mžHFUXYGYMžUbXDFj UY'8 UUcb' =bXj]X Ug> i ghZMhcb`
H\lg'g Va jggcb 'Wbh]bg]bZcfa U]cb'fY[fX]b| 'hY7ca dUbnžZYXfg'UbXch'Yf`
ggh'a 'Wa dcbYbhžUbXUgg'V]hXWg'ca Yfg'gYf YX" H\lg]bZcfa U]cb'lg'ĠGYMf]m
]bZcfa U]cb| 'Ug'XZ]bYXVn'A]bb"GHU"Y%" "+žg VX"%LE" 'LW'9byf[mVY]y Yg'hY
]bZcfa U]cb'Wi 'XVYa Ub]di 'U]Xhc'fY YU'hY'cW]cb'UbXgnYcZZUW]hYg'gYf]b|`
ci f'Wg'ca Yfg" H\Ydi V]W]gW'g fYcf'i gYcZ]h]g]bZcfa U]cb'WU]g'Ub`
i bUWWd]VYf]g 'VW] gYh'cgYk \c k Ubhc' X]gi dh'h YYYM]W' [f]XZcf'dc]hW'cf`
ch'Yf'fYUg'bg'a UmYfb'k \jW'ZU]h]Yg'hc 'hF[Yhlc 'WU]h'Y [fYU]g]X]gi dh'cb"': cf`
h\lg'fYUg'cbždi fg Ubhc' A]bb"GHU"Y%" "+žg VX" &žk Y\j Y]l VgYX'h]g'XU]Zca`
hYdi V]W]Yfg'cb'cZci f'Z]b| ""

H\lg'g Va jggcb Ugc 'Wbh]bg]bZcfa U]cb'Uci hUW]a 'U]U]bh'hYWa dUbnk \Yf`
hY7ca dUbn]bX'h YgYh]b| 'd'U]bhZU]fYX'h YgYh'a Ybh]a ci bhk ci 'XVY`
a U]bh]bYX'Ug'WbZ]Xbh]U" H\lg]bZcfa U]cb'lg'ĠhUXYg'YMYi]bZcfa U]cb'Ug'XZ]bYX`

VnA Jbb"GHU"Y% " +fM" H\lg]bZcfa Ujcb Xfj Yg]bXdYbXbhYwbcA JyUi Y
Zca bchVY]b[[YbYU_m_bck b'cf fYUX]mLgMHJbUYVnrch Yfgk \c Wb XcVHJbU
Z]bUWU'Uj UbHJ YZca]lgi gY": cf'h]gfygcbzdi fg Ubhlc A Jbb"GHU"Y% " +z
g VX"&zk Y\Uj YI VgYXh]gXUJZca 'hYdi V]Wj Yfgcb'cZci f'Z]b["

=b UXX]hcbzh]gg Va]gg]cb]bW'XgIdfj UYXUJcb]bXj]X Ugj g W'Ug'Wgca Yf
blA YgUbXci kJ Yj Yb]gZca 'k \]W'h Yrk YfY]a dUMX" H\lg]bZcfa Ujcb]g
a U]bU]bYXVnrh Y7ca dUbm]gdfj UY'Wgca Yf XUH]UbX'Zcf'h]gfygcbzdi fg Ubhlc
A Jbb"GHU"Y% "*+ zk Y\Uj YI VgYXh]gXUJZca 'hYdi V]Wj Yfgcb'cZci f'Z]b["

:]bU'nzi f'fydcfh]bW'Xg'Wgca Yf g]hgZUM]cb]g fj YmXUJZca 'Y hfbU'gci fWg"
H\YI hfbU'Wgca Yf'g fj YmXUJ\UgVYb'a Uf_YXB cb!Di V]WgXZ]bYXVnrA Jbb"
GHU"Y% " +zg VX"%M" H\lgXUJWb YZca Ug VgM]d]cb'k]h >8 "Dck Yf"
6Wm gYh]g]bZcfa Ujcb Xfj Yg]bXdYbXbhYwbcA JyUi YZca bchVY]b[]
[YbYU_m_bck b'hcZ]bXbchVY]b[fYUX]mLgMHJbUYVnrdfcdYf'a YubgVnrch Yf
dYfgcbgk \c Wb'cVHJb YwbcA JyUi YZca]lgX]gWcg fYcf i gZL W'9bYf[m
a U]bU]bg'h]g]bZcfa Ujcb UgUhfUXYgMMhdi fg Ubhlc A Jbb"
Fi Y+, & "\$) S\$zg Vd" "

K Y\Uj YYYWfcb]W'nz]YXh]gXcWa Ybhk]h 'hYA JbbYgchUdi V]W h]hYg
7ca a]gg]cbz]bXbch]W'cZ]h YZ]b[\UgVYb'gYj YXcb'h YdUf]Ygcb'h YUHUWX
gYj]W]g"
gYj]W]g"

D'YgyWbHUMDu YU;]WgUidLa YU' "]Wg4 l WYbYf[mWa 'cf'f'%'&' ' \$!&, -
cf'a YUh[U'VfUb c4 l WYbYf[mWa 'cf'f'%'&' ' \$!*-')]Zmi \Uj YUbrei Yg]cbg
fY[fX]b['h]gZ]b["

G]bWfYnz

#g#

; 5=@65F5B?C
A 5B5; 9FZF9; I @5HCFMDFC>97HA 5B5; 9A9BH

9bWcg fYg

WGfj]W@gh

G5H9C: A=BB9CCH5

69: CF9H9

A=BB9CCH5 Di 6@7I H@H9G7CAA=GCB

8Ub@dgiWi`m
A UHk`GWi Yf`Yf`
? UjY>"GjYb`
x\b`Hi a U

J]M7\Uf`
7ca a]gg]cbYf`
7ca a]gg]cbYf`
7ca a]gg]cbYf`

=B Hk9`A5H9F`C: BCFHk9FB`G5H9G`
DCK9F`7CAD5BM`55BBI 5@F9DCFHCB`
G5: 9HMZ`F9@-56=@HMZ`5B8`G9FJ=-79`
EI 5@HM: CF`&S%/5B8`D9HHCB: CF`
5DDFCJ 5@C: 9@97HF=7`F9@-56=@HM`
G5B85F8G: CF`&S%

.....8C7?9HBC"9SS&#A!%!SSS`

5BBI 5@F9DCFH5B8`
D9HHCB`

=BHFC8I 7HCB`

Bcfh`Yfb`GUYg`Dck`Yf`7ca`dUbrz`Xc]b[`Vi`g]b`Ygg`Ug`LW`9bYf[`nag`Va`]g]h`h`Y`
A`]bb`Yg`h`U`D`i`V`]W`h`]h`Yg`7ca`a`]gg]cb`h`]g`5`bbi`U`F`Y`d`c`f`h`c`b`c`i`f`g`Z`h`z`f`Y`]U`]`h`z`
Ub`X`g`f`j`]W`e`i`U`]h`m`d`Y`Z`c`f`a`Ub`W`Z`c`f`&S%`"K`Y`a`U`Y`h`]g`Z`]b[`di`fg`Ub`h`c`A`]bb`F`"
+,`&`S`(`SSz+,`&`S`)`SSz`Ub`X+,`&`"%`SS`"H`]g`Z`]b[`Ugc`]b`W`X`g`c`i`f`D`Y`h`h`c`b`Z`c`f`
U`d`d`f`c`j`U`c`Z`h`Y`7`ca`d`U`b`n`g`d`f`c`d`c`g`Y`X`f`Y`]U`]`h`m`g`U`b`X`f`X`g`Z`c`f`h`Y`n`Y`f`&S%`z`U`g`
f`Y`e`i`]f`Y`X`i`b`X`f`A`]bb`F`"+,`&`"S`*`SS`"=-b`U`X`h`c`b`z`h`]g`5`bbi`U`F`Y`d`c`f`h`W`b`h`U`b`g`g`Y`Y`f`U`
W`a`d`]b`W`]h`a`g`Z`c`a`j`U`f`c`i`g`X`c`W`Y`g`"

K`Y`f`Y`g`]W`Z`"n`f`Y`e`i`Y`g`h`U`h`Y`7`ca`a`]gg]cb`U`W`d`h`c`i`f`U`b`i`U`f`Y`d`c`f`h`Z`c`f`&S%`Ub`X`
U`d`d`f`c`j`Y`c`i`f`d`f`c`d`c`g`Y`X`f`Y`]U`]`h`m`g`U`b`X`f`X`g`Z`c`f`&S%`"

=`" G`A`A`5`F`M`C: `: `=@`B;`

5`c`b`Y`d`U`f`U`f`U`d`g`a`a`U`f`m`c`Z`h`]g`Z`]b[`U`W`a`d`U`b`Y`g`h`]g`D`Y`h`h`c`b`d`i`fg`Ub`h`c`A`]bb`
F`"+,`&`"%`SSz`g`V`d`"%`

..

=='' G9FJ=79`CB`CH< 9F`D5FH<9G`

LW`9bYf[m\UgZ`YXh\gXcWa`Ybh]b`Y8`cWYg`UbXgYf`YXUg`a`a`UfncZ`h`YZ`]b[`
cbU`dUf]Ygcb`LW`9bYf[m]a`gW`UbYci`g`YYM`WgYf`]W`]gZdi`fg`Ubhlc`A`]bb"F"
+, & "% \$Sžg`Vd" "&"

=='' ; 9B9F5@: =@-B; :-B: CFA 5H-CB`

LW`9bYf[m]dfcj`]Xg`h`YZc`ck`]b[`f`Yei`f`YX`]bZcfa`U]cb`di`fg`Ubhlc`A`]bb"F"
+, & "% \$Sžg`Vd" " "

5'' B Ua`Y5XX`YggZ`UbXHYd\cbYBi`a`Vf`cZI`h`]lmi`
B`cfh`Yfb`G`H`g`Dck`Yf`7ca`dUbnž`Xc`]b[`Vi`g]b`Ygg`Ug`LW`9bYf[m]
(%`B`]W`Yhi`A`U`
A`]bbYd`c`]gž`A`B`))`(%`
f`%&L`'`\$!)`\$S`

6'' B Ua`Y5XX`YggZ`UbXHYd\cbYBi`a`Vf`cZI`h`]lmi`5hcfbYni`
A`UfU?`"5`gWYa`Ub`
G]b]cf`5`hcfbYni`
LW`9bYf[m`
(%`B`]W`Yhi`A`U`I`(`(%`h`:``ccf`
A`]bbYd`c`]gž`A`B`))`(%`
f`%&L`&&!)`(*`\$)`

7'' 8UYcZ:]]b[`UbX8UYGHbXUfXgHU`Y9ZZMM`

H`YXU`Y`cZ`h`]gZ`]b[`]g5`df`]\`%ž&S%`"LW`9bYf[m]f`Yei`Yg`h`Uih`Y7ca`a`]gg]cb`
UW`dih`]g`Ubbi`U`fYdcf`hcb`h`Y7ca`dUbnž`dYfZcfa`UbWZcf`&S%`"5XX]hcbU`nžk`Y`
f`Yei`Yg`h`Uici`f`dfcd`cg`XfY]U`]lmi`g]bXUfXg`VYUddfcj`YXZcf`h`YmUf`&S%`"C`i`f`
fYdcf`hcb`fY]U`]lmi`dYfZcfa`UbWZcf`&S%`žg`VY`Mlc`h`Yg`U`bXUfXg`Uddfcj`YXVni`h`Y`
7ca`a`]gg]cbžk`]"`VYZ`YXcb`cf`VZcf`Y5df`]\`%ž&S&Sž`Ug`f`Yei`f`YXi`bXf`A`]bb"F"
+, & "\$`\$) \$Sžg`Vd" "%žZcf`h`Y>Ubi`Uf`%h`fci`[\`8`YWa`Vf`" "%ž&S%`dYf]cX`"

8'' GUi`h`7cbf`c`b`]b[`GWYX`YZcf`DfcWgg]b[`h`Y:]]b[`

B`c`gdW`Z`Vg`U`i`h`]a`d`cg`Y`g`U`g`W`Y`X`i`Y`W`b`f`c`b`]b[`h`Y`d`f`c`W`g`g`]b[`c`Z`h`]g`Z`]b[`"
Di`fg`Ubhlc`A`]bb"F"+, & "% \$Sžh`]g`fYdcf`h]g]lc`VYZ`YXUg`Ua`]gW`UbYci`gZ`]b[`
i`bXf`A`]bb"F"+, & "\$`\$) \$Sžg`Vd" "%ž" I`bXf`A`]bb"F"+, & "% \$S`[`cj`Yfb]b[`

..

a lgW`UbYci gZ]]b[gZ]b]h]U`Wa a Yblg`fYX`i Yk]h]b` \$`X`hg`cZZ]]b[žk]h` fYd`m
Wa a Yblg`Xi Yhb`X`hg`h`fYU`Zhf`"..."

9" I h`]lm`9a d`cn`YF`Yg`lcbg`V`YZf:]`]b[`
; U`6f`ub`_c`
F`Y`i` U`c`fm`A` Ub`U` Y`
L`W`9`b`Y`[`m`
(%`B`]W`Y`h`A`U`I`(`\$`%`+`h`:``ccf`
A`]b`b`Y`d`c`]g`Z`A`B`))`(`\$`%`
f`f`%`&`L`'`\$`!*`-'`)

=J" 89G7F`=~~DH~~`CB`5B`8`DI`FDCG9`C: :`=@`B;`

@Y`]g`U`h`cb`d`l`g`X`]b`&`S`S`%`f`Yei`]f`Y`X`h`U`h`Y`7`ca`a`]g`]cb`Y`g`U`V`]g`g`U`Z`h`z`f`Y`]U`]`h`z`
Ub`X`g`f`j`]W`ei`U`]`h`m`g`h`U`b`X`l`f`X`g`Z`c`f`Y`Y`M`]W`X`l`g`f`]M`h`cb`i`h`]`h`Y`g`"5`Z`f`U`fi`Y`a`U`]b[`
d`f`c`W`g`z`h`Y`7`ca`a`]g`]cb`U`X`c`d`h`X`f`i`Y`g`h`U`h`V`W`W`a`Y`Z`Z`W`j`Y`cb`>`U`i`U`m`&`z`&`S`"..."
H`Y`g`f`i`Y`g`W`b`h`U`b`V`ch`d`f`Z`c`fa`Ub`W`g`h`U`b`X`l`f`X`g`Ub`X`f`d`c`f`h`b[`f`Yei`]f`Y`a`Y`blg`"
5`X`X`]h`cb`U`f`h`Y`fi`Y`g`f`Yei`]f`Y`]b`X`j`]X`U`i`h`]`h`Y`g`h`c`d`f`c`d`c`g`Y`Y`M`]W`Y`]U`]`h`m`
g`h`U`b`X`l`f`X`g`Y`U`W`m`U`f`Z`c`f`U`d`d`f`c`j`U`V`h`h`Y`7`ca`a`]g`]cb`"..."

=b`Wa`d`]`Ub`W`k`]h`h`Y`fi`Y`g`z`h`]g`Z]]b[]g`c`f[]b`]n`X`]b`l`c`h`Y`Z`c`ck`]b[]g`W`]c`b`g`

- G`U`Z`h`m`D`Y`Z`c`fa`Ub`W`Z`c`f`&`S`%`
- F`Y`]U`]`h`m`D`Y`Z`c`fa`Ub`W`Z`c`f`&`S`%`
- G`f`j`]W`E`i`U`]`h`m`D`Y`Z`c`fa`Ub`W`Z`c`f`&`S`%`
- 5`X`X`]h`cb`U`F`Y`d`c`f`h`b[`F`Yei`]f`Y`a`Y`blg`
- D`f`c`d`c`g`Y`X`9`Y`M`]W`F`Y`]U`]`h`m`G`h`U`b`X`l`f`X`g`Z`c`f`&`S`%`

C`b`A`U`f`W`"S`z`&`S`%`z`h`Y`7`ca`d`U`b`m`Z`Y`X`d`f`c`d`c`g`Y`X`f`Y`]U`]`h`m`g`h`U`b`X`l`f`X`g`Z`c`f`&`S`%`"H`Y`
7`ca`a`]g`]cb`U`d`d`f`c`j`Y`X`ci`f`d`f`c`d`c`g`Y`X`g`h`U`b`X`l`f`X`g`]b`]h`g`A`U`f`W`%`z`&`S`%`C`f`X`f`]b`8`c`W`h`i`
B`c`"9`S`S`&`#`A`!`%`!`&`-`"H`]g`Z]]b[]W`b`h`U`]b`g`]b`Z`c`fa`U`h`cb`c`b`c`i`f`d`f`c`d`c`g`Y`X`f`Y`]U`]`h`m`
g`h`U`b`X`l`f`X`g`Z`c`f`&`S`%`z`U`g`k`Y`U`g`]b`Z`c`fa`U`h`cb`c`b`c`i`f`d`f`Z`c`fa`Ub`W`Z`c`f`&`S`%`i`b`X`f`h`Y`
U`d`d`f`c`j`Y`X`g`h`U`b`X`l`f`X`g`"H`Y`g`h`U`b`X`l`f`X`g`k`Y`d`f`c`d`c`g`Y`Z`c`f`&`S`%`U`f`Y`W`W`U`h`X`i`g`b[]h`Y`
g`l`a`Y`a`Y`h`c`X`c`c`[`m`l`g`d`f`Y`]c`i`g`5`b`b`i`U`f`Y`d`c`f`h`g`k`]h`U`W`U`b`[`Y`]b`b`c`f`a`U`]n`U`h`cb`l`c`i`g`Y`
h`Y`&`)`W`h`U`a`Y`h`c`X`c`i`h`]b`Y`X`]b`=999`%`**`!`&`S`%`&`"..."

B 9K =H9A G=B H=GF9DCFH'

H\Y7ca a lgg|cb|gC fXf']b'8 cWYhB c'9SS&#A !% !& - fYei]fYXhY7ca dUbnrc']bWXYhYZc`ck]b|]hYa g]b'Z hi fY5bbi UFYdcf]g' K Ydfcj]XYVYckžUei]W fYZfYbW]c'k \YfYhYgY]hYa gUfY]b'h]g'fYdcfh''''

B cb!bcfa U]nX'G5=8 =žG5=; =žUbX'75=8 =j Ui Yg'	5 H\UWa YbhA žDU'Y' .
G5=8 =žG5=; =žUbX'75=8 =j Ui Yg'WW'UHX'i g]b 'hY =999' &) 'WUa Yh'cX	DY]h'cbžDU'Y* / 5 H\UWa Ybh '@'
A 5=; =žWW'UHX'i g]b 'hY=999' &) 'WUa Yh'cXž UbX'bc bcfa U]nX'j Ui Yg'	DY]h'cbžDU'Y* / 5 H\UWa YbhB %
79A =I' bcfa U]nX'UbX'bc bcfa U]nX'ci hU'Y'Y' Yg' cZ(ž) 'UbX*' ci hU' Yg'	DY]h'cbžDU'Y& / 5 H\UWa YbhD'
79@=I' 'U]b]h'fj Ug[fYU]f' h'Ub*'ž%&UbX&f \ci fg'	DY]h'cbžDU'Y& / 5 H\UWa YbhD'
9g]a U]X'FYg'cfU]cb'H]a Yg'	DY]h'cbžDU'Y& .
=999'6YbWa Uf_]b '	DY]h'cbžDU'Y' \$' 5 H\UWa YbhE' .
DY'Z'ca UbW'Vm'i g]ca Yf'7'Ugg'	DY]h'cbžDU'Y' %
8]g'W]g]cb'cZ'YUX]b 'W] gYg'cZci hU' Yg'UbX'a]h U]cb' g]fU]]Yg'	5 H\UWa YbhA' .
=a dU]cZ[f]X'a cXf]b]n]h'cb'cb'fY]U]]h'ma Yf]W]g'UbX' h'Wbc'c[]Yg'bYXX'h'c' Ux] UbW'h'U]]b 'UX]h'cbU' a Yf]W]	DY]h'cbžDU'Y' %

G5: 9HMD9F: CFA 5B79: CF'88%

+, &'\$(SS'5bbi U'GU]m]F Ydcfh' On or before April 1 of each year, each utility shall file a report on its safety performance during the last calendar year. This report shall include at least the following information:

- A. *Summaries of all reports filed with United States Occupational Safety and Health Administration (OSHA) and the Occupational Safety and Health Division of Minnesota Department of Labor & Industry during the calendar year.*

8 i f]b['88% žk YWbh]bi YXci f'Wa a]ha Ybhlc' dfcj]XYUgZYk cf_ 'Ybj]fcbā YbhZcf' ci f'Ya d'cnYgUbXhc' dfca chYUk UfYbYgg'cZgZYk cf_ 'dfUMWg'

9UW mUfz h YI "G"8 YdUfla YbhicZ@Uwcfz6i fYU 'cZ@Uwcf'GHUghWg fj YmcZ C VWdUhcU' =b1 f]YgUbX= 'bYggYgfYei Ygg]bZcfa Uhc'cb'fUbXca 'ngYWMXd'Ublg UbXZUW]H]YgcdYUHXVmL W'9bYf[m' 5HUWa Ybh5' hc' h'lg5bbi U'FYdcfh dfcj]XgUg a a UfncZ h YXUfYei YghXVrh' h YI "G"8 YdUfla YbhicZ@Uwcf'Zcf'88% "' H'lg'kUY]bWXYghYfYei]fYX]bZcfa Uhc'Zca' h'YI "G" C VWdUhcU' GUZhmUbX < YU h' 5Xa]b]gfUhc': cfa " '\$\$"

B. *A description of all incidents during the calendar year in which an injury requiring medical attention or property damage resulting in compensation occurred as a result of downed wires or other electrical system failures and all remedial action taken as a result of any inquiries or property damage described.*

5HUWa Ybh6' hc' h'lg5bbi U'FYdcfh]bWXYghYfYei]fYX]bZcfa Uhc'fY[UfX]b['WJa gdU]b'88% 'fYUHXhc' dfcdYfmXLa U'YfYg' h]b['Zca' XckbYXk]fYgcf'ch'Yf' YWM]W' gng'Ya 'Z]i fYg' H'lgg a a UfncZYWgd'Uha Yb]ga UY]b'88% 'Zcf'UbrndUgh mUf'ei U]Z]b['Y' Yb]g' =b'88% žh'Y7ca dUbrnā UY'bc' d'Uha Yb]g]b' Wa dYb]gUhc'Zcf']b1 f]YgfYei]f]b['a YXW'Uhm]hc'fYg' h]b['Zca' XckbYXk]fYgcf'ch'Yf' YWM]W' gng'Ya 'Z]i fYg' =b['YbYUzk \ Yb'Ub']bV]XyhcWwfg'Zca 'UXckbYXk]fYcf'Z]YX' Yei]da Yb]zh'Y7ca dUbrnU' Ygh' YbWw]gmU]hc'hc' fYd'UWz'fYdUf'cf'ch'Yfk]gYZ] ']g'Yei]da Ybh'

H'lgg Va]gg]cb'Ugc' WbhU]bg]bZcfa Uhc'U'ci hUWJa 'U'U]b]gh'YWa dUbrn\Yf' h'Y7ca dUbrnUbX'h'YgYh]b['d'U]b]ZU'fYX'h'YgYh'Ya YbhUā ci bhk ci 'XWY' a U]b]bYXUg'WbZ]XbhU"' H'lg]bZcfa Uhc']gĀ'fUYg'WMĀ']bZcfa Uhc' U]g'XZ]bYX Vmā]bb"GUH'Y% "' +MFM" H'lg]bZcfa Uhc' Xf]j' Yg]bX'dYbX'bh'Ww'bcā]V]Ui Y' Zca 'bchVY]b[']YbYU'm_bck'b'cf'fYU]m]g'WM]U]bUY'Vrhc'h'Yfgk \c' Wā 'XcV]U]bU' Z]bU]W'U]X' U]b]U'YZca ']gi'gY": cf'h'lg'fYg'cbz'di fg' Ubhlc' A]bb"GUH'Y% "' +ž' g' VX'žk'Y\U'YI'Wg'X'h'lg'XU'Zca' h'Ydi V]W]Yfg]cb'cZci f'Z]b["'

F9@-56=@HMD9F: CFA 5B 79: CF'88%'

+, &"9) \$\$FY]UM]]mF Ydcfh]b[F'Yei]fYā Yb]g"' G' VdUth%'5bbi U'FYdcfh]b[F'Yei]fYā Yb]g"' On or before April 1 of each year, each utility shall file a report on its reliability performance during the last calendar year. This report shall include at least the following information:*

- A. The utility's SAIDI for the calendar year, by work center and for its assigned service area as a whole.
- B. The utility's SAIFI for the calendar year, by work center and for its assigned service area as a whole.
- C. The utility's CAIDI for the calendar year, by work center and for its assigned service area as a whole.
- D. An explanation of how the utility normalizes its reliability data to account for major storms.

Ug' f' A ca YbHfmi 5j YfU Y-bhffi dhcb: fYei YbWb-bXI fA 5= -LfYg' hg'Ug'5HUWa YbhB' hc'h'lg' fYdcfh' K YbchY'h YA 5= =fYg' hg'\Uj YVYb bcfa UjnXi gbl ('h Y&)' VYUa YhcX ci h'lb'X'lb' =999 % **! &S%& j'W'X'lb' 'h YXUHZcf dfY jci g'nUfg''

- 3. Required Xcel to augment its next filing to include a description of the policies, procedures and actions that it has implemented, and plans to implement, to assure reliability, including information on how it is demonstrating pro-active management of the system as a whole, increased reliability, and active contingency planning.
- 4. Required Xcel to incorporate into its next filing a summary table that allows the reader to more easily assess the overall reliability of the system and identify the main factors that affect reliability.

K Ydfcj [XY]bZcfa Ujcb 'lb' Wa d']UbWk]h' C fXf' Dc]bhg' ' UbX('lb' ci f' 8]gf]M' h'cb' Gng'Ya' DfZcfa UbWG a a Ufmlg'5HUWa YbhA' hc'h'lg'fYdcfh'

- 5. Required Xcel to report on the major causes of outages for major event days.

K Ydfcj [XY]bZcfa Ujcb 'lb' Wa d']UbWk]h' C fXf' Dc]bh) žUg'k Y` Ug'ci f' A ca YbHfmi 5j YfU Y-bhffi dhcb: fYei YbWb-bXI fA 5= -LfYg' hg'Ug'5HUWa YbhB' hc'h'lg' fYdcfh' K YbchY'h YA 5= =fYg' hg'\Uj YVYb bcfa UjnXi gbl ('h Y&)' VYUa YhcX ci h'lb'X'lb' =999 % **! &S%& j'W'X'lb' 'h YXUHZcf dfY jci g'nUfg''

5HUWa YbhB' Ug' 'lb'W'X'g'bcbl!bcfa UjnXA 5= =j Ui Yg''

.....

%H Y7ca a]gg'cb'UZfa YXh Yg'UX]h'cbU fYei]fYa Yb'g']'lg' C fXf' XUNXC W'Vf' & ž&S% ']b' 8 cWYhB c'' 9SS&#A !% !' &''

6. Required Xcel to consider other factors, in addition to historical data, on which to base its reliability indices for 2014 in an effort to demonstrate its commitment toward improving reliability performance.

K Ydfcj]XY]bZcfa U]cb]b`Wa d`]UbWk]h`C fXf`Dc]bh*`]b`h`YGYM]cbZĪ DfcdcgYX 9`Wf]WFY]U]]m]GubXfXg`Zcf`&S% Ī`VYck`"

7. Required Xcel to continue reporting major service interruptions to the Commission's Consumer Affairs Office.

K YX]gWggci f`a Ucf`gYj]W]bhffi dh]cbg]b`7ca d`]UbWk]h`C fXf`Dc]bh+`]b`h`lg` 5bbi U`F`Ydcfh]b`h`YGYM]cb`X]gWgg]b[`A]bb`"Fi`Y+, &`"\$+\$\$"

&S% F9@-56=@HMD9F: CFA 5B 79 F9G @HG`

C b`A UfW" Sž&S% žUgfYei]fYXVmA]bb`F"+, &`"\$* \$\$žk YdfcdcgYXfY]U]]m] g]ubXfXg`Zcf`&S% `Zcf`YUW`cZci f`Zci f`A]bbYgchUk cf_`Wbhfg]b`8`c`WYhB`c`" 9SS&#A`!%`!&`-`"®`=b`h`Y7ca a]gg]cb]g`A UfW% ž&S% `C fXf`Uddfcj]b[`h`Y&S% ` fY]U]]m]g]ubXfXg`žh`Y7ca a]gg]cb`Ug`cfXfYX`h`Y7ca dUbnic`i`gYUbyk`a`YhcX` lc`W`W`U`H`G`5`-8`žG5`= `=UbX75`-8`="`H`Y`H`U`Y`V`Y`V`ck`dfYg]bhgci f`&S% `fY]U]]m] d]fZcfa UbWfYg`]g`W`W`U`H`X`i`b`Xf`h`Y`b`Yk`a`YhcX`ž`W`a`d`U`Y`X`h`h`Y`g`ub`X`f`X`g` Uddfcj`Y`X`V`h`h`Y`7`ca`a`]gg]cb`]b`]g`A UfW% ž&S% `C fXf` \`U`X`h`Y`g`ub`X`f`X`g`V`Y`b` W`W`U`H`X`i`b`Xf`h`Y`b`Yk` m`L`X`cd`h`X`a`Y`h`c`X`"

H`Y`g`f`Y`]U]]m]g`U`h`g`]g`U`F`Y`W`W`U`H`X`i`g`b[`h`Y`b`Yk` `m`c`f`X`f`Y`X`a`Y`h`c`X`c`Z`-999` %`**`F`Y`]cbU`A`Ucf`9j`Ybh8`UhfA`98`Ižk` \`]W`a`Y`ubg`]h`]b`W`X`g`ci`h`U`Y`g`c`W`W`f`]b[`U`i` U`"Y`Y`g`f`X`]g`f`]m`h`cbžg`Vg`U`h`cbž`Ub`X`h`U`b`g`a`]gg]cbž`Ub`X`"

- =bW`X`Y`U`ci`h`U`Y`W`g`Y`W`X`g`"
- K` \`Y`F`U`dd`]W`W`Y`ž`]b`W`X`Y`W`X`h`i`Z`c`f`d`U`h`U`f`Y`g`c`f`U`h`cb`"
- 6U`g`W`W`U`h`cb`g`cb`h`Y`bi`a`V`f`c`Z`W`g`c`a`Y`f`g`M`]"`b[`U`W`i`b`lg`U`b`X`a`Y`h`f`g`"
- 6U`g`W`W`U`h`cb`g`cb`g`c`f`a`!`b`c`f`a`U`h`Y`X`X`U`"

K`Y`X`Y`M`f`a`]b`Y`f`Y`]cbU`g`c`f`a` `X`h`h`f`Y`g`c`X`g`U`g`X`cb`i`g`b[`h`Y`-999`%`**`a`Y`h`c`X`".... 5bm`X`h`h`U`h`a`Y`h`g`c`f`Y`W`X`g`h`Y`X`U`m`G5`-8`=A`98`h`f`Y`g`c`X`]g`W`b`g`X`f`Y`X`U`g`c`f`a` `X`h`h`Z`c`f`h`Y`ei`U`]`h`b[`f`Y`]cb`" `H`]g`a`Y`ubg`h`U`h`U`ci`h`U`Y`g`h`U`h`g`f`h`cb`U`g`c`f`a` `X`h`h` f`k` \`]W`U`g`g`Z`c`a` `a`]b`]` \`h`c`a`]b`]` \`h`Z`c`f`U`d`U`h`W`U`f`k`c`f`_`W`b`h`f`U`F`Y`I`W`X`X` Z`c`a` `h`Y`W`W`U`h`cb`c`Z`h`Y`j`U`f`ci`g`f`Y`]U]]m]b`X`]W`g`Z`c`f`h`U`k`c`f`_`W`b`h`f`"....

.....
&H`Y`Z`ci`f`A`]bbYgchUk cf_`Wbhfg]fYA`Yfc`9UgžA`Yfc`K`YgžB`cfh`k`YgžUbX`Gci`h`Y`g`h`"

: cf'88% žk Yi gXhYZc`ck]b[`999`A 98`gcf` XhfhfYg`c`XWwU]cb` dfcWx fYg`

- I gbl` h`YdfY]ci g`Zj YmUfg`cZci hU]Y\]gcfmZcf`YUW`fY]]cbžk Y`
 - 7UW`Uf`h`YXU]`mG5=8`=/
 - 7UW`Uf`h`YB`U`h`fU`@c[`cZYUW`XU]`mG5=8`=/U`b`X`
 - 7UW`Uf`h`Y5j`YfU`YU`b`X`G`h`b`X`f`X`8`Yj`]U]cb`c`Z`h`Y`B`U`h`fU`@c[`g`"

6UgXcb`h`YU`c`j`Ya`Y`h`c`X`c`c[`mž=999`%`**`g`Mg`Ui`b`]ei`YA`98`g`c`f`a`X`h`h`h`f`Y`g`c`X`Z`c`f`Y`U`W`f`Y]`]cb`"5`A`98`]g`X`Y`Z`]b`X`U`g`U`b`m`X`h`a`Y`h`]b[`c`f`Y`W`X`]b[`h`Y` G5=8`=A`98`h`f`Y`g`c`X`k` \]W`]g`g`h`U`h`h`Y`9l`d`c`b`Y`b`h`c`Z`h`Y`U`Y`f`U`Y`d`i`g`&` `g`h`b`X`f`X` Xj`]U]cb`g`c`Z`h`Y`B`U`h`fU`@c[`g`"

88% F9@=56=@HMD9F: CFA 5B79 F9G @HG`

		88% DfZfa UbW F Yg` lg`	88% DfcdegX GhUfX
A]bbYgc]U	G5=8=	- *"\$+`	B 5`
	G5= `=	\$'` -`	B 5`
	75=8=	%\$+"` -`	B 5`
A Yfc`9Ugi	G5=8=	%\$`"*-`	, *"\$)`
	G5= `=	\$'`-'`	\$'`)`
	75=8=	%%%+(`	%\$%"` %`
A Yfc`K`Ygi	G5=8=	,`'"&`	,`)"`+%`
	G5= `=	\$'`+`	\$'` (`
	75=8=	-`)"`(+`	%\$&`)*`
B cfhk`Ygi	G5=8=	%\$`" `(`	,`" `(`
	G5= `=	\$'`+`	\$'`++`
	75=8=	%&`"\$)`	%\$+"`,'`
Gci`h`Ygi	G5=8=	%%"`,\$`\$`	-`(`,`&`
	G5= `=	\$'`-&`	\$'`+*`
	75=8=	%&`"*(`	%\$&`\$(`

5gg\ckb`U`c`j`Yž]b`88%`k`Ya`Y`h`k`c`c`Z`%&`g`h`b`X`f`X`g`z`V`c`X]b[`h`c`g`Y`g`h`b`X`f`X`g`k`Y`X`X` b`c`h`a`Y`h`"5`g`Y`d`U`b`Y`X]b`a`c`f`Y`X`h`U` `V`Y`c`k`ž`a`c`g`h`f`Y]]c`b`g`Y`d`Y]]b`W`X`g]]b]Z`W`b`h` g`c`f`a`!`f`Y`U`h`X]a`d`U`g`h`U`h`b`Y]]U`j`Y`m`]a`d`U`h`X`h`Y`f`Y]]U]]m`g`h`g`h`g`W`" `b`a`U`b`m`Y`g`z`

.....

`K`Y`b`c`h`h`U`h`L`W`9`b`Y]]m`c`d`Y`U`h`g`i`b`X`f`h`k`c`g`Y`g`c`Z`f`Y]]U]]m`g`h`b`X`f`X`g`h`c`g`Y`d`d`f`c`j`Y`X`V`h`h`Y` 7`c`a`a`]g`]c`b`i`b`X`f`A`]b`"F`"+` ,`&`"\$`S`\$`S`z`U`b`X`h`c`g`Y]]b`W`X`X]]b`h`Y`7`c`a`d`U`b`m`g`h`f`]W`e`i`U]]m`h`f`Z`Z`" `H`Y` 7`c`a`a`]g`]c`b`U`d`d`f`c`j`Y`X`h`Y`f`Y]]U]]m`a`Y`g`f`Y`g`]]b`c`i`f`g`h`f`]W`e`i`U]]m`h`f`Z`Z`]]b`]g`C`f`X`f`X`U`h`X`5`i`]i`g`h`%&`88%`]b`8`c`W`h`B`c`"9`ž` \$S`#`A`!`%&`'` ,`" `K`Y`k`]`Z`Y`U`b`U`b`i`U`f`Y`d`c`f`h]]b`h`U`h`X`c`W`h`c`b`c`f`V`m`A`U`h`%ž`88%`"

h Yhed Zj Yk Yh Yf ja dUWXhg]b YUWfY] jcb k YfYh Yy Ybhg h UhW gXh Y
7ca dUbnhc Yi VVXh YfY]U]]lm] cU" K Ydfcj]XY]b h YZc`ck]b] gY]cb U
g a a UfUg h c k \nk YX]Xbcha Yh h Yy gU]g\ Xg UbXfXg]b h YgYfYg"

E. *An action plan for remedying any failure to comply with the reliability standards set forth in part 7826.0600 or an explanation as to why noncompliance was unavoidable.*

5gk Y\Uj YbchX]b dfy]]ci gUbbi Ufydcf]gZi Yhc h YZUW]h Uh h YgY] cUgUfYZj Y
mUf Uj YfU YgZk Yk ci `XY dY]W]hc UW]y YhUf[YhfYg]hg) S`dY]W]bhc Zh Yha YUbX
a]gg h YhUf[Yh) S`dY]W]bhc Zh Yha Y` HU Yb]hc [Yh YfZgY] YfU X]hg cZgcf a g h Uh
W] gY] hbgj Yci H] Yg Vi hXc bchei U]Z]Zcf gcf a X]hg W]b ei]W]mfc XY Ug UbXfX
h Uh]g V]gXcb Uj YfU YdY]Zfa UbW"

5gXgV]VX]b ci f 8]gf]M hcb Gng]a `DY]Zfa UbWG a a Ufmdfcj]XXUg
5HUWa Yb]A]c h]g5bbi UFYdcf]zh Y7ca dUbnk]` Wbh]bi Yci f`cb]]c]b]`
UgYgg YbhgcZfY]U]]m]gY]b]]c]a d`Ya Ybhng]a]a dfcj Ya Ybhg UbX
a U]bh]bUbW]hc UW]y Yh Y Uf[Yg]a dfcj Ya Ybhg]b fY]U]]h]a YUg fYa Ybhg"
K YUfYWa a]hX]hc dfcj]X]b] fY]U]Yg]fj]W]hc ci f`W]gca YfgUbXX]g Wgg h Y
g]W]Z]Wk cf_ W]bh]g VYck"

; YbYU]m]U]cgg U`k cf_ UfYgZ]b]&S% k Y] dY]]bVWX]bi a V]f`cZg UYf`gcf a g
h Uh]a dUWX]h Ybcha U]nXfY]U]]m]]b UXX]hcbZk YVY]y Yh Y]a dfcj YX
dfYdU]hcb k cf_ df]cf]c gcf a g]a dfcj YXgcf a fYg]cbgZk \]W]a Uh] Uj Y`X]i g]c
W]i bXf h Ygcf a]hYg]c XZcf gca YX]hg k \fY]b h YdU]h YgY X]hg a Uh] Uj Y
ei U]Z]XZcf Y] W]gcb" 5]hci [\k YVY]y Yh Yk Yh Yf ja dUW]Zca]&S% k]`bchi
W]f]ncj Yf]b]c]&S% Zk Yk]`V]a cb]cf]b]]h Y&S% fYg]hgZcf Ub]fYbXg"

1. *Metro East*

Ci f`G5=8]ZG5=]ZUbX75=8]b]h YA Yfc 9U]hk cf_ W]bh]f X]Xbcha Yh h Y
g]UbXfXgZcf h YmUf" G5=8 =k Ugcj Yf V]n]%"* a]bi h]gZ G5=]k Ugcj Yf V]n]%"\$ žUbX
75=8 =k Ugcj Yf V]n]%"(a]bi h]g"

]b]&S% Zk Y] dY]]bVWX]g] b]Z]W]bh]gcf a]fYU]X]a dUW]gXi f]b]]h YmUf fYg]h]b]]b]
Uga U`dY]W]b]U] YcZ]X]hg W]b]f]M]h]b] \Y] m]La ci b]g]hc U`h fY]]bX]W]g" H`Yhed`
Zj Yk Yh Yf ja dUWX]X]hg UXX]%" , a]bi h]g]hc G5=8]Z\$%"\$]c G5=]ZUbX+"&
a]bi h]g]hc 75=8 ="]Z]h]g Y] h]b]X]ci h]c h`Yhed`%\$ X]hgZ]h YW]b]f]M]hcbgk Yf Y
&)" a]bi h]g]hc G5=8]Z\$%"]c G5=]ZUbX- " a]bi h]g]hc 75=8 =" Hcd W] gYgcb`
h]cgY X]hg]b]W] X]k]bXZ`]] \]h]b]]zhfYgZ]UbXXck bYXdc Ygcb h]cgY X]hg"

2. Metro West

C i f'G5=8=UbX75=8=]b'h'YA Yfc K Yghk cf_ 'Wbhf'k YfYVch' k]h]b'h'YghUbXfX Zcf'h'YmUf'" G5= =Zcf'h'YA Yfc K Yghk cf_ 'Wbhf'fY] jcb'X]Xbchia Yh'h'Y ghUbXfXgVnh'YfYUfj Ymga U' 'Ua ci bhczS"S']bhffi dhcbg"....

C b'Gydh'a Vf' &sz'h'YfYk Ug'\Uj n'k YU'h'Yf'UMj]m]b'h'YfY] jcb'" Gy YfU' 'Uf[Y ci hU] Yg'X' Yhc' '\h]b] 'fYg' 'hX]b'h'YXh'h'Uj]b] 'Ub]a dUMcZ(' 'hc' G5=8=UbX' S'S('hc' G5= =za cfYh'Ub'h'YmUf! YbXG5= = [Ud'hc' ghUbXfX'....

3. Northwest

C i f'G5=8=zG5= =zUbX75=8=]b'h'YB cf'h'k Yghk cf_ 'Wbhf'X]Xbchia Yh'h'Y ghUbXfXgZcf'h'YmUf'" G5=8=k Ugcj Yf'Vni& " 'a]bi h'g'zG5= =k Ugcj Yf'VniS'S' zUbX 75=8=k Ugcj Yf'Vni% "&a]bi h'g'"....

=b'&S% zk YfY dYf]YbW'X'g[b]Z]Wbh'g'cfa !fYU'X]a dUMg'X' f]b] 'h'YmUf'fYg' 'h]b]]b' Uga U' dYf'Wb]U] YcZ]X]h'g'Wb]f]M h]b] '\Uj n'La ci bh'g'hc' U' 'h'fY]b]X]W'g'" H'Y'hcd' Zj Yk YU'h'Yf!]a dUMX]X]h'g'UXX'X'& "S'a]bi h'g'hc' G5=8=zS'% 'hc' G5= =zUbX, "+" a]bi h'g'hc' '75=8=" "=Z]h]g'Y' h'b]X]X'ci h'hc' h'Y'hcd' %S'X]h'g'z'h'Y'Wb]f]M h'cbg'k YfY () "+" a]bi h'g'hc' G5=8=zS" &'hc' G5= =zUbX- "S'a]bi h'g'hc' '75=8=" 'Hcd' W' g'Y'cb' h'cg'Y'X]h'g']b]W'X]Y'k]b]X' '\h]b]]z]W'z'g'p'ck z'h'fY'g'z'UbX'dc' Yg'" H'Y'Uf[Y]a dUMX]X]h'g' \U'g]b] 'Y'Uf[Y]Y' Yb]g'h'U]b]W'X]X'h'fY]a U]b]]b]Y'dc' Y]Z]fY'g'f]S'%G5=8=#S'+ G5= =zUX]g]f]M h'cb'g' Vg]U]cb' V' g']b] 'Z]i fYf] '%G5=8=#S'%G5= =zUbXU X]g]f]M h'cb'g' Vg]U]cb' h'f'Ub'g'Z'fa Yf'Z]i fYf]&, 'G5=8=#S'S' 'G5= =L'

4. Southeast

C i f'G5=8=zG5= =zUbX75=8=]b'h'Y'Gci h'Y'ghk cf_ 'Wbhf'X]Xbchia Yh'h'Y ghUbXfXgZcf'h'YmUf'" G5=8=k Ugcj Yf'Vni& "S'a]bi h'g'zG5= =k Ugcj Yf'VniS'%zUbX 75=8=k Ugcj Yf'Vni+* 'a]bi h'g'"....

=b'&S% zk YfY dYf]YbW'X'g[b]Z]Wbh'g'cfa !fYU'X]a dUMg'X' f]b] 'h'YmUf'fYg' 'h]b]]b' Uga U' dYf'Wb]U] YcZ]X]h'g'Wb]f]M h]b] '\Uf[Y]Ua ci bh'g'hc' U' 'h'fY]b]X]W'g'" H'Y'hcd' Zj Yk YU'h'Yf!]a dUMX]X]h'g'UXX'X' " " 'a]bi h'g'hc' G5=8=zS'&&'hc' G5= =zUbX, "(" a]bi h'g'hc' '75=8=" "=Z]h]g'Y' h'b]X]X'ci h'hc' h'Y'hcd' %S'X]h'g'z'h'Y'Wb]f]M h'cbg'k YfY) &%a]bi h'g'hc' G5=8=zS" S'hc' G5= =zUbX&% " 'a]bi h'g'hc' '75=8=" 'Hcd' W' g'Y'cb' h'cg'Y'X]h'g']b]W'X]Y'k]b]X' '\h]b]]z]W'z'g'p'ck z'h'fY'g'z'UbX'Wb]X' W'cf' Wb]h'U'W' H'Y'Uf[Y]a dUMX]X]h'g' \U'g]b] 'Y'Uf[Y]Y' Yb]g'h'U]b]W'X]X'U'f'U]b]g'a]g]cb'g' Vg]U]cb' V'fYU'Y'

ZUji fYfl "%G5=8=#\$'+G5=;=IzUhfUba lggcb'g VghUcb i b_bck b'Yj Ybhf&)'
G5=8=#\$'&G5=;=IzUbXUa Ub`jbYZYXf'VWYUji fYfl "\$'G5=8=#\$'G5=;=I'

Ci hUj Yy Ybhg'k YfYfy Jk YXZcf'h Y'UghZk 'mUfg''=hk UgZci bXhUih YdccfY'
dfZcfa UbWk Ugdf]a Uf]nM gXZca 'ci hUj YgUih Ycj Y\YUXhd'Yj Y''7U gY
hdYgUih Ycj Y\YUXhd'Yj Y'k YfYfy Jk YXZcf'h Y'UghZk 'mUfg''5gYl dWXXZ
ci hUj YW gYg UfnZca 'mUf'lc 'mUfZVi hlk c'UfYUzj Y'YUjcb UbXWmci hZU'i fYgZ
k YfY[Xbh]ZYXk Jh 'g[b]ZVbh]bWUgYcj Yf'h Y'UghZk 'mUfg''=b &\$% zk Yd'Ub'cb'
ZcWgbl 'cb'cddcfh b]h'Yg'lc 'a Jh[UYj Y'YUjcb'a UbU Ya Ybh]gg Yg]b'Gci h YUg'i K Y
UfYUg' d'Ubb]b['cb'fi bb]b['Uga U`d]chlc fYd'UWdcfWUj b'Wmci hg'k Jh 'dc'na Yf''
FYg' lg'cZh YgYZZcfhg'k]''VfYj Jk YXZUhci [\ Jha UhfU YUZk 'mUfg'lc Xhfa JbY
h YZZWmj YbYgg'cZh YWUb[Y]b'Wmci h'Wbgfi W]cb''

F. *To the extent feasible, a report on each interruption of a bulk power supply facility during the calendar year, including the reasons for interruption, duration of interruption, and any remedial steps that have been taken or will be taken to prevent future interruption.*

8i f]b['&\$% zh YfYk YfYbc [YbYUjcb'ci hUj Yg'cbL W'9bYf[nYg'gh'a 'hUhW gX
Ub]bhf] dh'cb'cZgYf] JW'lc Z'fa 'YWM]VWg'ca Yfg''5''WfU]a Ybh'g'cZWg'ca Yfg'
g VYW'lc ''cUXa UbU Ya YbhfU'Yg'cf'8 Ya UbX]QXYA UbU Ya Ybhdfc[fUa g'k YfY'
Wbg]h'bhk Jh 'h Yhfa g'cZh Y'cUXa UbU Ya Ybhf]Zg'UbX8 GA 'dfc[fUa g''''

K Ydfcj]XYh YfYei]fYX]bZcfa Ujcb'fY UfX]b['hUba lggcb'ci hUj Yg'Ug'
5HUWa Ybh7'lc 'h'lg'Ubbi U'fYdcf]''G]bW'h Y]bV]Xbh'g'ck b'k YfYfYUW]cbUfm'X Y
lc g'cfa gZdi V]W]Ua U YZcf'ch Y'UMj Jh Yg'Ugg'V]W]Xk Jh 'fU]Xca 'UbXi bZcfYgYb'
Yj YbhgZbc'd'Ubg'Uj YVYb Xj YcdYXlc 'UXfYgg'h Yg'W]Z]Wgg Yg'YbWi bhfYX''
< ck Yj Yfzh YHfUba lggcb @]bYDYZcfa UbWfH@DLkcf_ UfYUkcf_gj Yfm'W'gYm
k Jh 'h YfYUW]Wi bhfYdfYgYbUj Yg'UbX'hci VYa YbZ'HfUba lggcb'7cbgfi W]cbZ
Gng'Ya 'C dYUjcbgZ'UbXch Y'kcf_ UfYUg'lc d'fcUMj Ym]bgdYU]bXa U]bU]b'ci f'
]bZUg'fi W]fY''K \ Yb Xhfa JbYXUdd]WVYZH@D'k]''Udd'ngdYV]Z]Wgg Yh'fYbYk U'cf'
fY]U]]m]b\UbWa Ybhdfc[fUa g'lc]Xbh]ZYXVW]lg'h U]h'hbXh YVW]h'g'Yf] JW
'ZYUbXyb\UbWg]hg'fY]U]]m]

H YhUba lggcb'']bYbUa Yg]b'5HUWa Ybh7 '\Uj YVYb'a Uf_YXUg'dfchW]X]XU''''
H'lg]bZcfa Ujcb'lgI gYMF]m]bZcfa Ujcbi' Ug'XZ]bYXVm'A Jbb''GUH'Y%' '+z'g VX'
'%LU''L W'9bYf[nY]Yj Yg'h Y]bZcfa Ujcb'Wi 'X]b'g'ca YVW]a g]UbWg'VY'
a Ub]di 'U]Xlc fYj U'dch'bh]Uj i 'bYU]]hYg]b'ci f'gng'Ya ''H Ydi V]W]g'Wg'fYcf'
i g'cZh]g]bZcfa Ujcb'W]U]g'Ub i bUW]d'U]Yf]g_VW]gYh'cgYk \c'k Ubhlc'
X]gfi dh'h YYYW]W] [f]XZcf'dc]hW'cf'ch Yf'fYUg'cbga U]h'Yfb'k \]WZU]h'Yg'lc'

hlf] Yhlc WUUhY[fYUghXgfi dhcb": cf'h]gfYgcbzdi fg Ubhlc 'A]bb"GUH'
Y% " +žg VX"&zk Y\Uj Yl VgXh]gXUHZca 'hYdi V]Wj Yfgcb'cZci f'Z]bl'"

G. A copy of each report filed under part 7826.0700.

A]bb"F"+, &"S+SSžg Vd"%fYei]fYgUi h]hrlc' dfca dhm]bZfa 'hY7ca a]ggcb]g
7cbg a Yf'5ZU]fgCZ]Wf75C LcZUbrna Ucf'gfj]W]bhffi dhcb'cWff]bl' 'cb'hY
i h]h]m]ggha " 'A Ucf'Gfj]W=bhffi dhcb]]gXZ]bYXi bXf'A]bb"F"+, &"S&Sž
g Vd"+ U]gUb]bhffi dhcb'cZgfj]WUihYZYXf"Y Y'cf'Ucj YUbXUZZW]bl') S\$cf'
a cfYWgca YfgZcf'cbYcf'a cfY\ci fg" L W'9byf[mY]i 'UfmgYbXg'hY75C
bch]Z]W]hcb'cZg g]U]bYXci h] YgcWff]bl' 'UihYZYXf"Y Y'cf'Ucj Yzk \]W]bWXYg
fydcf]bl' 'ci h] Yg'hU]fYbchbWgg]f]m]Uf[Y]bci [\ cf'cb['Ybci [\ 'lc'a Yh]hY
XZ]b]hcb'cZUa Ucf'gfj]W]bhffi dhcb' bXf'A]bb"F"+, &"S&Sžg Vd"+"

K YfYWa a]hXlc' dfcj]X]bl' 'hY75C 'k]h' h]a Ym]bXUWfU]h]bZfa U]cb" 'Ci f'
7i gca Yf'5X]cWY'; fci d']YbYUmgYbXg'h YgYbch]Z]W]hcbg]]UYa U] X]fW]hlc'
hY75C "' =b'a cghW]gžci f'7i gca Yf'5X]cW]gZcfk UfXUWdncZ]hY]bh]bU'
Ya U] 'ci h] Ybch]Z]W]hcbg'h YmfW]j YZca 'ci f'7cb]fc' '7Yb]f" '8i f]bl' '&S% žh YfY
k YfY&' 'ci h] YgcbL W'9byf[m]ggha 'hUha Yh]hYXZ]b]hcb'cZ]a Ucf'gfj]W
]bhffi dhcb]' K Ydfcj]X]U]g5HUWa Yb]8 'lc' h]]g5bbi U'F Ydcf]z'Wd]YgcZ]hY
bch]Z]W]hcbgZcf'hYei U]Z]bl' 'ci h] Yg'"

5HUWa Yb]8 'Wb]U]bg]bZfa U]cb'fY[UfX]bl' 'hY7ca d]Ubn]gZ]YXf]gUbXchYf'
ggha 'Wa dcbYb]g]UbXUggW]hXWgca Yfggfj YX" 'H]g]bZfa U]cb']g]gYmf]h
]bZfa U]cb] 'UgXZ]bYXVm'A]bb"GUH'Y% " +žg VX"%fL' L W'9byf[mY]j Yg'hY
]bZfa U]cb' W] 'XVYa U]di 'U]Xlc' f]j YU'hYbi a Wf'cZ]Wgca Yfggfj YXVm]U
dUf]W]f'Z]YXf" 'hYdi V]W]g]Wg]fYcf'i gY'cZ]h]g]bZfa U]cb' WUUh]g'Ub'
i bUWd]U]Yf]g' 'W]m]gYh'cgYk \c k Ubhlc' X]gfi dh]hY]Y]W]W]f[f]XZcf'dc]h]W'cf'
ch]f'fYgcbga U]m]Yfb'k \]W'Z]W]h]g]lc' hlf] Yhlc WUUhY[fYUghXgfi dhcb": cf'
h]gfYgcbzdi fg Ubhlc 'A]bb"GUH'Y% " +žg VX"&zk Y\Uj Yl VgXh]gXUHZca '
hYdi V]W]j Yfgcb'cZci f'Z]bl'"

=b'Ub'Y]Zcf]hlc' dfcj]X]hY]h]a Y]Y]h]bZfa U]cb]zk \Yb] Yf'dcgg]VYci f'7i gca Yf'
5X]cWY'; fci d'g]bXg'hY75C 'hYZ]f]g]ci h] Ybch]Z]W]hcb'fW]j YXZca 'hY
7cb]fc' '7Yb]f'Zcf'Ub'ci h] Y]j Yb]":]f]g]bch]Z]W]hcbg'cZ]b'Xc' bch]bWXYZ " 'W]gY
UbX#cf'Z' 'ck li d'U]m]cb]bZfa U]cb'g]bW]hYfYg'cfU]cb' W]k 'a U]rbch\Uj Ym]h
Wa d'Y]X]g]kcf_ 'fYU]Xlc' 'hY]j Yb]i' < ck Y] Yfzk YVY]j Y]h]ga cfY]a dcf]h]hlc'
[]j YhY75C 'bch]Z]W]hcb'U]g]gcb'U]g'dcgg]VYfU]hYf'hUb'k U]h]bl' 'Zcf'Wa d'Y]h
]bZfa U]cb'VZcfYg]bX]bl' 'hY75C 'Ub'U]f]h'"

..

5gXlgWggX]b'dfY |ci g5bbi U'fydcfngzk YbchYhUhX f]b[\|| \j c i a Yci hU Y
ha YgZ]h]g'dcgg]VYh Y7cbf'c`7Ybhf XcYgbchgbXUb Ya U'Zcf YUWUbXy Yfm
ci hU Yy Ybh`C Zhb Xi f]b['h YgY \|| \j c i a Yy Ybgh Y7ca dUbn7i gca Yf`
5Xj cWNY; fci d'kcf_gk]h h Y7cbf'c`7Ybhf h'c VUj b'a cfY[YbYU g]U gi dXUhg`
]b`Yi `cZ]bXj]Xi U'Ya U'g` H YgYi dXUhgzk \]WUfYUg' Zcfk UfXXh'c h Y75C ž
i g U'm]bWXY]bZfa U]cb'cb'k \]W Wa a i b]hYgk YfYUZZYWXZhc U Wgca Yfgci hi
cZgYf]WZUbXUbni U'UWY]bZfa U]cb'cb'Yi dWXXfYgcfU]cb'ha Yg` =Zj U'UWYž
]bZfa U]cb'lg'Ugc' d'fcj]XXfY[UfX]b['Wk g'Vci [\h]b'Zca 'ch Yf'UfYUg'hc Ugggi
fYgcfU]cb'Xi f]b['ha YgcZYgWUHXcdYU]cbg"''

5gk]h U'bm'dfcWgg'h U]bj c j Yg`i a Ub]bhfj Yb]cb'UbX\UbXcZgZ'ffcf'gk]`cWmfz
UbXbch]Wga UrbchVYg]bhc h Y75C "' H YfYUfY]bg]UWgk \Yb h Y7cbf'c`
7Ybhf'a UrbchWUHYUbch]WZcf h Y7ca dUbn7i gca Yf`5Xj cWNg'Xc bchi
Zcfk UfXUbch]W'c h Y75C "' =b &S% žk YX]XbchgbXUb Ya U' bch]W'c h Y75C`
Zcf* `cZ& ' a Ucf'gYf]W]bhf'fi dh'cbg"'5 ``gl `cZh Ybch]Wg'bc]hgbk YfYXi Yhc`
\i a Ub Yf'cf"''''

A]bb"F"+, &*"S+SSžg Vd"&fYei]fYg'Ui h]]h'c'Z]YUk f]h]b'fydcf'hc'b U'bn'a Ucf`
gYf]W]bhf'fi dh'cb']b'k \]W%'d'YfWbhc'f'a cfY'cZ]hg'A]bbYg'c]UWgca Yfgk YfY
k]h'ci hgYf]WZcf & \`ci fgcf'a cfY`8 i f]b['8S% žh YfYk YfYbc'g W]bhf'fi dh'cbg`
cbLW'9bYf[n]g'g]h'a ""

- H. To the extent feasible, circuit interruption data, including:
- Identifying the worst performing circuit in each work center;
 - Stating the criteria used to identify the worst performing circuit;
 - Stating the circuit's SAIDI, SAIFI, and CAIDI;
 - Explaining reasons that the circuit's performance is in last place; and
 - Describing any operational changes the utility has made, is considering, or intends to make to improve its performance.

LW'9bYf[m\Ug'Udfc[f]a `Yb]hYX: YXXf'DYfZfa UbW=a d'fcj Ya Ybh'D'Ub'fi D=DE"''
I bXf'h]g'd'Ubzk Y]Xb]Zh Yd'ccf'Yg'd'YfZfa]b['W]W]h'gh Yci hU YW] gYg'UbX
U'bn'WUb[Yg'bYXXh'c]a d'fcj YfY]U]]h'm' LW'9bYf[mX]Z]bYg'd'ccf'd'YfZfa]b[`
ZYXXf'g'U]h'cgYk]h UC5= =Y WXX]b['h'fY]h'a Yg'h Yy YfU YZYXXf'G5= =j Ui Yž
cf'UC5=8 =Y WXX]b['Zci f'ha Yg'h Yy YfU YG5=8 =j Ui Y'` H YX]U'Ui gX'h'c`
W]WUHY'G5=8 =UbXG5= =Zcf'h Yg'YZYXXf'g'lg'Ug'Ycb'X]g'f]M h'cb`Y'Y'ci hU Ygž
Yi Wdh'Zcf'd'UbbYXUbXdi V]W]X]a U'YžUbX\lg'bchVYb'bcfa U]nXZcf'g'cfa `Y'Yb]g"''

.....

(G5= =! %+\$'ci hU YgZcf'8S%]b'A]bbYg'c]U'G5=8=I '&' "- a]bi h'gZcf'8S%]b'A]bbYg'c]U'

: cf`h`lgfYUgcbzga YcZl`YZYXfg`lgYX`b`5`hUWa Ybh9`fYbchUWU`U`I`d`ccf`
dYfZcfa Yfgi`Vi`hfU`h`Y`fY`|`bW`YX`|`b`h`Y`|`g`icb`m`VW`g`Y`h`Y`7`ca`d`U`m`|`g`f`Y`e`i`|`f`Y`X`
|`c`|`X`b`h`Z`m`9`Z`Y`X`f`g`z`U`b`X`h`Y`f`d`Y`f`Z`c`f`a`U`b`W`j`U`i`Y`g`k`Y`Y`|`f`Y`U`f`h`U`b`c`h`Y`f`Z`Y`X`f`g`
f`M`h`Y`g`g`h`U`b`d`c`c`f`d`Y`f`Z`c`f`a`Y`f`Z`Y`X`f`g`|`b`h`U`d`U`f`h`W`U`f`k`c`f`_`W`b`h`f`L`":`c`f`h`c`d`Z`Y`X`f`g`
|`b`Y`U`W`f`Y`|`c`b`h`U`h`k`Y`f`Y`|`X`b`h`Z`Y`X`U`g`d`c`c`f`d`Y`f`Z`c`f`a`Y`f`g`U`b`X`b`Y`X`|`b`|`c`d`Y`U`|`c`b`U`
W`U`b`|`Y`f`i`b`X`Y`h`Y`|`b`h`f`b`U`:`D`-`D`d`f`c`|`f`U`a`z`k`Y`h`U`j`Y`W`a`d`Y`h`X`U`f`Y`|`U`|`|`m`f`Y`j`Y`k`
U`b`X`d`f`c`j`|`X`Y`|`b`Z`c`f`a`U`|`c`b`c`b`h`Y`f`Y`U`g`c`b`g`Z`c`f`h`Y`d`c`c`f`d`Y`f`Z`c`f`a`U`b`W`U`b`X`U`b`r`i`d`U`b`b`Y`X`
|`a`d`f`c`j`Y`a`Y`b`g`|`b`5`hUWa Ybh9`"

K`Y`Y`U`i`U`h`h`Y`k`c`f`g`i`d`Y`f`Z`c`f`a`|`b`|`Z`Y`X`f`g`U`b`i`U`n`i`U`b`X`d`f`Y`d`U`b`g`U`b`X`d`f`c`Y`M`g`h`c`
f`Y`a`Y`r`i`h`Y`W`g`Y`c`Z`c`i`h`U`Y`g`^`c`k`Y`Y`z`X`g`d`|`h`Y`h`Y`g`Y`Z`c`f`g`c`W`U`g`c`b`U`n`i`U`Z`Y`X`f`k`|`
f`Y`U`d`d`U`f`c`b`h`Y`k`c`f`g`i`d`Y`f`Z`c`f`a`Y`f`|`g`i`H`|`g`W`b`V`Y`W`g`Y`X`V`r`i`g`Y`Y`U`f`Y`U`g`c`b`g`z`
|`b`W`X`|`b`|`g`c`f`a`g`z`X`g`U`b`W`Z`c`a`Z`f`g`h`Y`g`c`b`X`f`g`z`c`f`e`i`|`W`m`|`f`c`k`|`b`|`j`Y`|`Y`U`|`c`b`|`|`b`
U`X`|`h`c`b`z`Z`Y`X`f`g`W`b`Y`c`b`h`Y`|`g`h`X`Y`h`c`d`c`c`f`h`U`d`d`Y`f`Z`c`f`a`U`b`W`k`|`|`W`a`U`h`b`c`h`|`U`j`Y`
V`Y`b`|`b`j`Y`g`|`|`U`h`X`|`b`d`f`Y`|`c`i`g`m`U`f`g`"

H`Y`Y`U`f`Y`h`c`Z`Y`X`f`g`|`g`h`X`c`b`5`hUWa Ybh9`|`b`h`Y`:`D`-`D`g`Y`W`|`c`b`k`|`|`W`k`Y`Y`U`g`c`
|`X`b`h`Z`Y`X`|`b`h`Y`&`S`%`F`Y`d`c`f`h`U`g`:`D`-`D`Z`Y`X`f`g`"6`Y`c`k`z`k`Y`d`f`c`j`|`X`Y`U`X`|`h`c`b`U`
|`b`Z`c`f`a`U`|`c`b`f`Y`|`f`X`|`b`|`f`Y`U`g`c`b`g`Z`c`f`h`Y`d`c`c`f`d`Y`f`Z`c`f`a`U`b`W`U`b`X`c`d`Y`U`|`c`b`U`W`U`b`|`Y`g`
d`U`b`b`X`c`f`W`a`d`Y`h`X`"

Metro East / Feeder A (Attachment E, Page 1)

H`|`g`|`g`U`c`b`|`Z`Y`X`f`h`U`h`|`g`c`W`Y`X`c`b`U`|`|`h`c`d`|`b`U`f`i`f`U`U`b`X`f`i`g`|`W`f`Y`U`g`f`f`c`i`b`X`X`
V`r`i`c`i`|`|`h`f`f`U`b`U`b`X`h`Y`g`"H`Y`U`f`Y`U`|`g`g`d`U`f`g`Y`m`d`c`d`i`U`h`X`k`|`h`c`i`h`U`h`Y`h`c`U`b`c`h`Y`f`
g`c`i`f`W`U`j`U`|`W`Y`"b`&`S`%`z`U`g`W`|`c`b`c`Z`h`Y`a`U`b`|`b`Y`h`U`i`|`U`k`a`U`b`m`g`d`|`W`g`k`U`g`
f`Y`d`U`W`X`k`|`h`b`Y`k`W`b`X`W`c`f`"5`g`z`U`d`c`f`h`c`b`c`Z`h`Y`Z`Y`X`f`k`U`g`h`f`U`g`Z`f`Y`X`c`b`h`c`U`
b`Y`k`Z`Y`X`f`c`i`h`c`Z`U`X`|`Z`Y`f`b`h`g`V`g`U`|`c`b`"H`|`g`k`|`"f`Y`X`W`Y`d`c`g`f`Y`U`b`X`W`g`c`a`Y`f`
W`i`b`h`U`Z`Z`W`Y`X`V`r`i`c`i`h`U`Y`g`"7`c`a`d`U`f`Y`h`c`&`S`%`z`h`Y`h`c`h`U`W`g`c`a`Y`f`a`|`b`i`h`Y`g`c`i`h`f`7`A`C`E`
W`a`Y`X`c`k`b`|`f`Y`U`h`m`Z`c`a`%`z`'`S`z`\$`&`h`c`)`\$`S`z`)-`z`U`a`c`g`h`U`+`d`Y`f`W`b`h`f`Y`X`W`|`c`b`"A`c`g`i`
c`Z`h`Y`7`A`C`G`|`b`&`S`%`k`Y`Y`X`i`Y`h`c`j`Y`|`Y`U`|`c`b`"H`Y`Z`j`Y`m`U`f`h`Y`Y`h`|`a`|`b`|`W`W`Y`k`U`g`
W`a`d`Y`h`X`c`b`8`W`a`V`f`%`z`&`S`%`z`k`|`|`W`g`a`c`i`X`f`Y`g`h`|`b`|`a`d`f`c`j`Y`a`Y`b`g`Z`c`f`&`S`%`"b`
U`X`|`h`c`b`z`U`d`f`c`Y`M`|`g`d`U`b`b`Y`X`Z`c`f`h`|`g`Z`Y`X`f`|`b`&`S`%`h`c`f`Y`d`U`W`Z`j`Y`V`U`X`W`|`c`g`g`f`a`g`U`b`X`
|`b`g`U`%`\$`W`a`d`g`U`f`g`h`c`f`Y`|`b`Z`c`f`W`U`h`c`g`d`|`W`g`z`g`W`Y`X`i`Y`X`h`c`V`Y`W`a`d`Y`h`X`|`b`i`b`Y`
&`S`%"H`Y`c`W`|`c`b`c`Z`h`|`g`Z`Y`X`f`W`U`h`g`W`U`Y`b`|`Y`g`h`c`|`a`d`f`c`j`Y`a`Y`b`h`^`c`k`Y`Y`z`k`Y`k`|`
W`b`h`|`b`i`Y`h`c`a`c`b`|`h`c`f`|`h`U`b`X`X`h`f`a`|`b`Y`Z`c`h`Y`f`U`m`|`c`b`g`W`b`|`a`d`f`c`j`Y`|`h`g`f`Y`|`U`|`|`m`i`

Metro West / Feeder E (Attachment E, Page 2)

H`Y`Z`Y`X`f`V`Y`U`Y`f`c`W`Y`X`c`d`Y`b`|`b`C`W`c`V`f`&`S`%`f`i`b`_`b`c`k`b`W`i`g`U`b`X`h`k`|`W`|`b`
8`W`a`V`f`&`S`%`f`i`U`c`d`|`b`|`k`|`f`Y`"5`Z`Y`f`Z`Y`X`f`d`U`f`c`|`|`b`8`W`a`V`f`&`S`%`z`k`Y`Z`c`i`b`X`U`b`

UfYUk \fYhYbYi hfU'kUg'aj YXi d'hc'hYufa'k Jh'd\UgYk JfYUbxZci bXj Jg U' Vi fb'a Uf_gcb'hYk JfY'jb'h Jg'fYU' H'Yk JfYk Ug'fYdUfYXUbXgdUM'g'UXX'": YXXf' VYU_Y'f'UbXUgg'W'HXfYUhg'k YfYfYd'UWX'Jb'&S%' ""

- I. Data on all known instances in which nominal electric service voltages on the utility's side of the meter did not meet the standards of the American National Standards Institute for nominal system voltages greater or less than voltage range B.

J c' hU' YXy J U' hcbg' hnd J W' n' fYg' h' k Jh' W' g' ca Yf' g' Yl d' Yf' Jb' W' b' l' d' f' c' V' Ya' g' k Jh' Y' W' f' J W' Y' e' i' J' d' a' Y' b' h' < J \ j c' hU' Y' W' b' f' Y' g' h' J' b' V' f' J \ h' J \ h' V' i' V' g' z' U' b' X' Y' Y' b' h' U' m' g' c' f' h' b' g' h' Y' J' Z' c' Z' h' Y' V' i' V' g' z' c' f' W' b' f' Y' g' h' J' b' Y' W' f' J' V' a' c' h' c' f' X' L' a' U' Y' @' c' k' j c' hU' Y' W' b' \ U' Y' Y' e' i' U' m' g' l' b' J' Z' W' b' h' W' b' g' Y' e' i' Y' b' W' g' ""

5 Z' f' g' h' f' Y' g' d' c' b' X' f' J' b' J' U' m' U' b' X' Y' g' W' g' c' a' Y' f' j c' hU' Y' W' a' d' U' b' l' g' = Z' U' b' c' b' j c' hU' Y' W' g' Y' W' b' b' c' h' V' Y' Z' c' i' b' X' z' k' Y' J' b' J' U' Y' U' j c' hU' Y' J' b' j' Y' g' h' J' U' h' c' b' z' U' b' X' J' b' g' U' U' f' Y' W' f' X' J' b' j c' h' a' Y' m' = b' h' Y' a' Y' f' c' U' f' Y' U' L' W' 9' b' Y' f' m' U' g' U' X' X' W' H' X' h' W' b' J' W' b' h' U' h' g' Y' g' h' Y' g' Y' f' Y' W' f' X' Y' g' U' b' X' d' Y' Z' c' f' a' g' h' Y' j c' hU' Y' J' b' j' Y' g' h' J' U' h' c' b' g' = b' h' Y' b' c' b' a' Y' f' c' U' f' Y' U' z' U' Z' f' g' h' f' Y' g' d' c' b' X' f' c' f' U' X' J' g' f' J' W' f' Y' d' Y' g' b' h' U' j' Y' W' b' X' W' g' h' Y' j c' hU' Y' J' b' j' Y' g' h' J' U' h' c' b' g' ""

LW'9bYf[n5`ckWYGYf J W J c' hU' YfUb[Y]g%&Sj c' hgd' i' g# a' Jbi g' Zj YdYfWbZcf' Ua Jbla i a' cZ%& j c' hgc' Ua U la i a' cZ%& j c' hg' 5gg' a' c' k' b' J' b' h' Y' h' U' V' Y' V' Y' c' k' z' LW'9bYf[n5`ckWYGYf J W J c' hU' YfUb[YZU' g' k' Jh' Jb' h' Y5a' Yf] W' B' U' h' c' b' U' G' h' X' f' X' g' = b' g' J' h' h' f' b' B' G' L' j c' hU' YfUb[Y6"

LW'9bYf[n5`ckWYGYf J W J c' hU' YfUb[Y

	A Jbla i a' Jc' hU' Y	A U la i a' Jc' hU' Y
5BG=J c' hU' YfUb[Y6' f' g' h' j' W' j' c' hU' Y' L'	%\$'	%&'
LW'9bYf[n' f' U' b' l' Y' f' g' h' j' W' j' c' hU' Y' L'	%&'	%&'

8 i f' J' b' l' ' &S%' z' h' Y7' c' a' d' U' b' n' W' b' X' W' X' ' S\$' j c' hU' Y' J' b' j' Y' g' h' J' U' h' c' b' g' " H' Y' g' Y' J' b' j' Y' g' h' J' U' h' c' b' g' f' Y' g' h' X' J' b' U' X' J' U' b' c' g' g' c' Z' U' g' d' W' Z' W' Y' c' hU' Y' d' f' c' V' Y' a' J' b') - ' c' Z' h' Y' g' Y' W' g' Y' g' " H' Y' g' Y' d' f' c' V' Y' a' g' U' f' Y' h' n' d' J' W' n' h' Y' f' Y' g' h' c' Z' h' U' b' g' z' c' f' a' Y' f' c' j' Y' f' c' U' X' g' c' f' g' c' a' Y' c' h' Y' f' Y' e' i' J' d' a' Y' b' h' a' U' Z' b' W' J' c' b' z' g' W' U' g' W' d' U' W' c' f' V' U' b' _' g' c' f' j c' hU' Y' f' Y' i' U' c' f' g' " = b' U' c' h' Y' f' W' g' z' Y' h' Y' f' b' c' d' f' c' V' Y' a' k' U' g' Z' c' i' b' X' c' f' h' Y' f' c' c' h' W' g' Y' k' U' g' U' h' f' J' V' i' h' X' h' c' g' c' a' Y' h' J' b' l' c' h' Y' f' h' U' b' j c' hU' Y' X' y J' U' h' c' b' g' " = b' W' g' Y' k' \ f' Y' h' Y7' c' a' d' U' b' n' Z' b' X' g' h' Y' j c' hU' Y' h' c' V' Y' c' i' h' c' Z' h' Y' U' W' d' h' U' Y' f' U' b' l' Y' z' k' Y' h' U' Y' U' d' d' f' c' d' f' J' U' h' U' W' J' c' b' g' z' J' b' W' X' J' b' l' V' i' h' b' c' h' J' a' J' h' X' h' c' g' k' U' d' J' b' l' h' U' b' g' z' c' f' a' Y' f' g' z' i' d' l' f' U' X' J' b' l' h' U' b' g' z' c' f' a' Y' f' g' z' c' f' W' Y' W' J' b' l' W' d' U' W' c' f' V' U' b' _' g' "

J. Staffing levels at each work center, including the number of full-time equivalent positions held by field employees responsible for responding to trouble and for the operation and maintenance of distribution lines

	A Yfc 9Ug	A Yfc K Yg	B cfh k Ygi	Cci h YUgi	Ch YfI
88% K cf_ 7YbM GUZbl @y Y HcUg	%	%	' ((,))
88% K cf_ 7YbM GUZbl @y Y HcUg	%	%	' ((-)*

l L W 9bM [nZYX Ya d'cmYgUg VhXk h h Y: Uf c UbXCci l : U'gGfj W7YbMfgYgcbXhc l'fci VYUbX dYzfa XgM hcb bYcdYUhc UbXa UhbUW b k YgM b A lbbYgUUbXh Y8 U chg

Gla]Uf hc 88% zk YWb]bi Yhc gYg [b]ZMhUf]hcb a cgnh'fci [\ fYfYa Ybg/ k YWffYbhm \j Yb]bYcdYb d'cg]hcbg'dcgnX" 7i ffYbhgUZ]b [bi a Wfg \j Ybchi \UXUb ja dUWcb'ci f Xh h Xh'cdYUhc b'gcf dYzfa UbW Yj Yg

K YbchYhUhU'ci [\ k YUfYfYdcfh]b [gUZ]b [Yj YgVnk cf_ Wbhf Ug fYei fYX i bXf h YFi Yg'ci f ZYXdYfgbbY Wb]bi Yhc fYgcbXhc l'fci VYUbXdYzfa X h Yg]b'ch Yf k cf_ Wbhf Ug h YbYXUf]gYg

K. Any other information the utility considers relevant in evaluating its reliability performance over the calendar year.

K YUfYWa a]hXhc d'fcj]X]b [fY]UVYgYj]W'hc'ci f Wg'ca Yg" K YUfYj UjUVYhc d'fcj]XYUmLX]hcbU]bZfa U]cb h Y7ca a]gg]cb a UhfYei fY'cb h]g]gg Y

G9FJ=79 EI 5@HMD9F: CFA 5B 79 88%

+ & *% \$\$F Ydcfh]b [A Yhf FYU]b [DYzfa UbW" The annual service quality report must include a detailed report on the utility's meter-reading performance, including for each customer class and for each calendar month:

- A. The number and percentage of customer meters read by utility personnel.
- B. The number and percentage of customer meters self-read by customers.
- C. The number and percentage of customer meters that have not been read by utility personnel for periods of six to 12 months and periods of longer than 12 months, and an explanation as to why they have not been read"

..

K Ydfcj [XYhYfYei]fYXa Ymf'fYUX]b[]bZcfa Ujcb Ug5hUWa Ybhi: 'tc h'lgZ]b["' 5hUWa Ybhi:]bW Xg'hYfYdcf]b['fY]bYa Yb'gXgWggX]b'ci f'> 'm' %ž&S% 'FYd'm 7ca a Yb'g]b'8 cWYhB c"9SS&#A !% !&) "'5hUWa Ybhi: 'Y W Xyg a i 'hd'YfYUXg' dYf'a cbh'k \Yb'fYdcf]b['a Ymf'fYUX'hcUggc' h'Uih YI'DYVbhFYUXVm7ca dUbn' XcYgbchYl WYX%SS'dfVbh]b'Ubn[]j Yb'a cbh'žUbXk Y\Uj YfYdcf]hX'h Ybi a Vf' cZa Ymf'g]bgU'YXVna cbh' fU'h Yf'h'Ub'cb'm'UmUf! YbX'hcU"''

K Y\Uj YUgc' fYa cj YX'YX'YhXa Ymf'g' Zca 'h'Y'hcU'bi a Vf'cZa Ymf'g]bgU'YXdYf' a cbh'" 'H'YI'XY'YhXa Ymf'g' Xyg[bUjcb]g[]j Yb'lc'a Ymf'gh'Uk YfY]bWffW'mim YbhfYX]b'lc' h'Y'gng'h'a 'UbXk YfYb'Yj Yf'f'hi 'm]bgU'YXU'UdfYa]gY' 'H'lg'Ybg'fYg'ci f' XUJ]ga cfYfYdfYg'bhUj YcZa Ymf'g]b'h'YZYX"''

5gXgWggX]b'ci f'> 'm'ž&S% 'FYd'm7ca a Yb'g]b'8 cWYhB c"9SS&#A !% !% %ž hYa Ymf'gfYUXdYVbhUj Ya Un'YUfh]ZVU'mick]b'W'hU]b'a cbh'gk \Yb'h'Y dYfVbhUj YcZa Ymf'gfYUX]g'W'W'U'X'VmXj]X]b['h'Ybi a Vf'cZa Ymf'gfYUX]b'U WYbXlf'a cbh'žYl W'X]b['a i 'hd'YfYUXg'cb'U[]j Yb'a Ymf'zVnh'Ybi a Vf'cZ'hcU' a Ymf'g'"'b'dUfh]W'Ufz]b: Wfi Ufn'G'dh'a Vf'UbX'BCj Ya Vf'h'YfYUfY'Zk Yf'Vi g'lygg' X]hg'h'Ub'h'Y'&%X'U'na Ymf'fYUX'W'WY'" 'H'YXUJ]b'5hUWa Ybhi:]bW Xg'U'fYUXg]b' U'WYbXlf'a cbh']bg'h'UX'cZUV]"]b[!a cbh'#fYUX'W'WY'žg'k \Yb'a i 'hd'Ya Ymf'fYUXg' Zcf'U[]j Yb'a Ymf'k YfYl W'X'X'ž'h'YdYVbhUj YcZa Ymf'gfYUX]ga i W'ck Yf']b' : Wfi Ufn'UbX'BCj Ya Vf'h'Ub'a c'gich'Yf'a cbh'g"''

D. Data on monthly meter reading staffing levels, by work center or geographical area.

H'YZc'`ck]b['XUJZcf'&S%]bW Xg'Z'`!h'a YYei]j UYbhibi a Vf'g'UbX'Xc'Ygbch'Wi'bi h'a dcfUfn'g'UZZdcg]h'cbg'" 'H'YI'Ch'Yf'f' 'W'W] cfn'bi a Vf'g]bW Xg'L W'9bYf[m' dYfg'bbY'"c'W'X]b'h'Y: Uf[c'UbX'G]ci l : U'g'G'fj]W'7Ybhf'gk \c'fYUXa Ymf'g]b' k Yg'h'fb'A]bb'Ygc'U'UbX'h'Y8 U'ch'g"''

	>Ub!	: Y!	A Uf!	5df!	A U'h	ž b!	ž !	5i [!	G'cd!	C'W!	B'cj!	8 YW
	%	%	%	%	%	%	%	%	%	%	%	%
A Yfc'9Ugi	'	'	'	'	'	'	'	'	'	'	'	'
A Yfc'K Ygi	&	&	&	&	'	'	'	'	'	'	'	'
B cfh'k Ygi	&)	&)	&)	&)	&)	&)	&)	&)	&)	&)	&)	&)
Cei h'Ygi	'	'	'	'	'	'	'	'	'	'	'	'
Ch'Yf'	%	%	%	%	%	%	%	%	%	%	%	%

A Ymf'fYUX]b['g'UZZ]b['Y'Y'g'X'f]b['&S%]bW'W'g'X'Vm'g'UZZdcg]h'cb'k \Yb'W'a dYfYX' hc'&S%+ f%]b'A Yfc'K Yg'L"''

+, &*%\$\$FYdcfh]b[=bj c i bhfn8]gWbbM]cbg" The annual service quality report must include a detailed report on involuntary disconnections of service, including, for each customer class and each calendar month:

- A. The number of customers who received disconnection notices.
- B. The number of customers who sought cold weather rule protection under chapter 7820 and the number who were granted cold weather rule protection.
- C. The total number of customers whose service was disconnected involuntarily and the number of these customers restored to service within 24 hours.
- D. The number of disconnected customers restored to service by entering into a payment plan.

K Ydfcj]XYh YfYei]fYX]bZcfa U]cb Ug5HUWa Ybh; 'tc'h]g5bbi U'FYdcfh"

+, &*%\$\$FYdcfh]b[Gyf]W9I h]bg]cb F Yei YghF Yg]cbgYH]a Yg" The annual service quality report must include a report on service extension request response times, including, for each customer class and each calendar month:

- A. The number of customers requesting service to a location not previously served by the utility and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service.
- B. The number of customers requesting service to a location previously served by the utility, but not served at the time of the request, and the intervals between the date service was installed and the later of the in-service date requested by the customer or the date the premises were ready for service.

K Ydfcj]XYh YfYei]fYX]bZcfa U]cb Zcf'DUfh5 'Ucj YUg5HUWa Ybh< 'tc'h]g5bbi U'FYdcfh"5HUWa Ybh<]bW'XgXU]cb gyf]W]bgU'U]cbg'hUhfYei]fY Wbgfi W]cb"

H]g]g'hYzfgimU' hUik YUfYfYdcfh]b[gyf]WYI h]bg]cb fYg]cbgYH]a Ygk]h' XU] Zcfa 'ci f'bYk 'G5Dkcf_ 'a Ub] Ya Ybhgn]a "' H'Yfc`'ci hcZG5DU'ck YXi g'tc' Xg]]b'Ug]f]]WYI h]bg]cb d'fcWgk \]W'Vh]f' W]h' fYg'h YXU]dc]]bg'bYXX]c' a Yg fYh'Yh]a YZca 'k \ Yb'UWgca Yf'g]h]g'fYU'ntc' hU'Ygyf]W'tc' d'fcj]g]cb'cZ hUhg]f]]W' 'K]h' UWUb[Y]b'gn]a gUbXdfcWgzk YVY]Y Yci f'&\$% 'UbX[c]b[' Zcfk UfXdYfZcfa UbW]g]bchWa dUFUY'c'k \ Uik UgdfY]ci gmfYdcfh'XUbX'h'Y WffYbh]bZcfa U]cb Vh]f' fYZWg'h YWgca Yf' dYfg]W]j Y' 'K]h' Vh]f']bZcfa U]cbz h'Y7ca dUm\ Ugi bXf]U' Yb'Ub]b]h]U]j Ylc']a d'fcj YdYfZcfa UbWUb'XXW]UgY'h'Y

..

h fbUfci bXhja YgZcf h Ydfcj jgcb cZfYgXybhlU gmfj JWk \YfYWbgbfi Wjcb jg fYei jfYX"

: cf'Dufh6 Ucj Yzk YbchYhUh' S*ž) - Wgca YfgfYei YghXgmj JWUhU`cWjcb` dfY jci gmgYfj YXVrh Y7ca dUbnjb`&S% "K jh fYgdWmhc gli Ujcbgk \YfYk Y g ddmgYfj JWlc U`cWjcb`dfY jci gmgYfj YXVrh Y7ca dUbnzk Y\UbXYh Ygy fYei Ydgcb`h YbYl hVi glbYggXlh F YgdcbXjb[`hc g WUfYei Ygh[YbYU`mjbj c j Yg gyHjb[Ua Yhf`UbXWbbWjbl `h YgYfj JW`G W WgygUfYbchfYZYmX]b`h Y jbzfa Ujcb`dfcj jXX]b`5hUWa Ybh< "

+, &"%\$\$F Ydcfh]b[`7U`7Ybhf F YgdcbgYH]a Yg`"The annual service quality report must include a detailed report on call center response times, including calls to the business office and calls regarding service interruptions. The report must include a month-by-month breakdown of this information.*

K Ydfcj jXyh YfYei jfYX]bzfa Ujcb Ug5hUWa Ybh=hc`h jg5bbi U`F Ydcfh`"

Di fg Ubhlc`h Y7ca a jggcbñB cj Ya Vf" ž&\$\$('C fXf`j b`8 cWWhB c"9\$\$&#A!S(!) %žk Y`lj Y]bW XyXW]hW`g]b`ci f fYdcfhXW` Wbhf fYgdcbgYhja Y` 5X]hcbU`nzk YUgc`dfcj jXUgUWa dUfjgcb U`gmj JW`Y Y`W`gcZZfYXhc U jYbhž k \jW]b`UX]hcb`hc F YgXybhlUž6G7ž7fYX]hUbXD5 F ž]h]bW XyG U`=J F \UbXYX W`g`"

- Ci f Ī Gmfj JW@yj Y`5`7U`g` hUh]bW XYF YgXybhlUž6G7ž7fYX]hUbXD5 F` UbX=J F \UbXYXci hU jYW`g]g, %\$`dYfWbhcZW`g`Ubkg YfYX]b`&S` gWbXgcf`YggĪ @]bY&`/UbX`
- Ci f Ī Gmfj JW@yj Y`5`7U`g` hUh]bW XYF YgXybhlUž6G7ž7fYX]hUbXD5 F` UbXU`=J F \UbXYXW`g]g- %\$`dYfWbhcZW`g`Ubkg YfYX]b`&S` gWbXgcf` YggĪ @]bY&`"

A jbb"F"+, &*"%\$\$žg Vd"%fYei jfYgh Uik YUbkg Yf, \$`dYfWbhcZW`ga UXYhc`h Y Vi glbYgg`cZZWXi f]b[fY]i `U`Vi glbYgg`ci fgk jh]b`&S`gWbXg`"K YbchYhUici f` 7U`7Ybhf gUfYgUZZX& `ci fgUXUž+ XhgUk YY žUbXci f`=J F `jgi gX]b`h Y glā Ya UbYf UĪgg`h jgha YdYf]cXžh YfZcfYh Ygyk YfYci f Ī Vi glbYgg`ci fgĪ`" Ci f dYfZfa UbW]bW XyG W` UbXgmj JW`Y Y]bzfa Ujcb`cb U&`\ci fgUXUž+ XhgUk YY `Ugg`" @]bY` %cb`5hUWa Ybh=dfcj jXy`ci f`U jYU YgdYXcZUbkg Yf` f5G5ŁUbXh Yfck gVYck VYU`ci h h Y5G5` VmW` Wbhf`"

9ZZWj Y>Ubi Ufm%&S% 'k YWUb[YXci f`ci fg'cZcdYUjcb Zcf' bcb! Ya Yf[YbWwM`g
lc 'A cbXUhhfci [\: f]XUhfca '+.SS'Ua "'lc '+.SS'd'a "'UbXQUi fXhgZfca '-.SS'Ua "'
lc).SS'd'a "'7U'7Ybhf FYdfYgbUj Yg'Wbhbi Ylc 'VYU U'UVYlc ']bhfUMk]h`
Wgca Yfg'W]b['fY[FX]b['YYM]WbXbUhi fU' [U'gci hU YUbXYa Yf[YbWwM`g& #+''
K Y\Uj YbchYbWi bhfYXUbnhWw]W'cf'ch Yf']gg Yg''''

5g'Yl dYwXZ'Wgca Yfg'\Uj YWbhbi YXlc 'XWwUgYh Yf' bYXlc 'g'NU_ lc 'Ub'U Ybhi
UZh' `ci fg'' -b'ZwZfca ' >Ubi Ufm&S% 'lc '8 YWa Vf' &S% 'k Ygk 'U' \$'dYVbh
XWwUgY]b'h Ybi a Vf'cZWgca Yfg'W]b[]b UZh' `ci fg'h Uhdca dhXlc 'g'NU_ lc`
Ub'U Ybhzf' fYU'cbg'ch Yf'h Ub'ci hU Yg'UbXbUhi fU' [U'gYa Yf[YbVWg''''

Ci f'X]]U'gfUM m\Ug'VYb'g WggZ `k]h'a cfYWgca Yfg' Y' YfU]b['gYZ'gfj]W
cZZfglc 'fUbgUwM' g]bYgg'' Cj YfU' i gU YcZci f'U' lca UHXd\cbYgnhYa ']gi d' " -`
dYVbhU] Ydc]bg]b' &S% 'j g' &S%+''': cf'hcgYWgca Yfg'h UhfYgYwM]b['lc 'g'NU_ lc`
Ub'U Ybzh' Yk UjhYa Y\U'g]a d'fcj YX'' Cj YfU' U' YbhW'g'Ubgk YfXk]h]b' &S'gWbXg'
]a d'fcj YX\$* 'dYVbhU] Ydc]bgZfca ' &S%+ 'lc' &S% 'f5 hUWa Ybh=z']bY' \$L''

DfhcZh]g]a d'fcj Ya YbhcZgfj]Wlc 'Wgca Yfg'Wb' VYUhf]M' hXlc 'gfj]b[`'
Wgca Yfg'VhM']b'h YWUbYg'UbXhYa Yg'h YnbYXUgg]hUw'' Cj YfU']bWa]b[`'
W'j ci a Yk U'g'Xck b' bYf'm(SSSS'W'gmU'f'cj Yf'mU'' H'YU YbhW'j ci a Yk U'g'
Xck b' % +SSS'W'g'z'k \] Yh YW'g' \UbXYXVnh YU' lca UHXgnhYa ']bWwUgXVm'
% \$, SSS'' -b'UX]h'cbzk Ygk 'Ub]bWwUg'cZ% "- dYVbh]b' Wgca Yf'9V]''
Ybfc `a Yb'g'UbX%\$'+ dYVbh]b' A m5 Ww' bhYbfc `a Yb'gZfca ' &S%+ 'lc' &S% ''''''

5g'cZh YXU]cZh]g'Fydcfz'k Y\Uj YfWw] YXZci f'Wa d'Ubg'Wa a Yb'g'Uci h'h Y
WUb] YZfca 'ci f'A]b'Yg'UWgca Yfg'' K \] Yh YWgca Yfg'k Yf'Ybch]b]hUm
d'Yg'Xk]h' h' YWUb] Y]b' `ci fg'z'k Yk YfYU'Ylc 'g'UgZwcf] m'f'g'j Yh Yf']gg Yg''

+ &'% \$\$F Ydcfh]b['9a Yf[YbWwA YX]W'5Ww' bhGUh g'' The annual service
quality report must include the number of customers who requested emergency medical account
status under Minnesota Statutes, section 216B.098, subdivision 5, the number whose
applications were granted, and the number whose applications were denied and the reasons for
each denial.

K Ydfcj]Xyh Yf'Yei]fYX]bZfca Ujcb U'g5hUWa Ybhi; 'lc'h]g5bbi U'F Ydcfh'

+ &'% \$\$F Ydcfh]b['7i g'ca Yf'8 Ydcg]lg'' The annual service quality report must
include the number of customers who were required to make a deposit as a condition of
receiving service.

8 i f]b['8&% žk YfYei YghXUhcU'cZ' - ('Xdcglg'UgUWbX]hcb'cZgfj]WZf'ci f' fYgXbhU'Wgca YfghU\UXZ]YXZf'Vb_fi dWñ'K YfYei YghYgYXdcglgi dcb' bchZ]W]hcb'Zca 'hYVb_fi dWñ'fhUx#cf'hYWgca Yf'cZhYf'Vb_fi dWñ dY]hcb"

+, &"&SSSF Ydcfh]b['7i gca Yf'7ca d'Ublg"*The annual service quality report must include a detailed report on complaints by customer class and calendar month, including at least the following information:*

- A. *The number of complaints received.*
- B. *The number and percentage of complaints alleging billing errors, inaccurate metering, wrongful disconnection, high bills, inadequate service, and the number involving service-extension intervals, service-restoration intervals, and any other identifiable subject matter involved in five percent or more of customer complaints.*
- C. *The number and percentage of complaints resolved upon initial inquiry, within ten days, and longer than ten days.*
- D. *The number and percentage of all complaints resolved by taking any of the following actions:*
 - (1) *Taking the action the customer requested;*
 - (2) *Taking an action the customer and the utility agree is an acceptable compromise.*
 - (3) *Providing the customer with information that demonstrates that the situation complained of is not reasonably within the control of the utility.*
 - (4) *Refusing to take the action the customer requested.*
- E. *The number of complaints forwarded to the utility by the commission's Consumer Affairs Office for further investigation and action.*

K Ydfcj]XhYfYei]fYX]bZfa U]cb Ug'5HUWa Ybh>lc 'h]g'5bbi U'FYdcf]žk \]W']bW'Xg'Wa d'Ublg'hU]fY\UbXYXVm]h Yf'hYW'Wbhf'cf'hY7ca dUbn]g' 7i gca Yf'5X]cWñ; fci d"

DU Yg%('cZ5HUWa Ybh>Wbh]b]bZfa U]cb'cb'Wgca Yf'Wa d'Ublg'\UbXYXVm ci f'Wgca Yf'U]cWñg'"5HUWa Ybh>ždU Y('dfcj]XghYbi a VYf'cZ'Wa d'Ublg' Zfk UXXlc 'hY7ca dUbnVñh'Y7ca a]gg]cb]g'7cbg a Yf'5ZUfg'CZ]Wf'75C'ŁZcf' Z fh Yf']bj Yg]]U]cb'" 'H'Y[fUbXlcU'cb'dU Y(']g'Wbg]hbk]h 'hYZ[i fYUgc' fYdcfhXUg']b'ci f'E i U]hrcZGfj]W]D'Ub'fE GDLHf]Z5bbi U'FYdcfh]b'8 cWñi 9ž, SS=]S&]S&' ("'K YbchYUX]hcbUñhU]f'ñ]b'8&% 'kY]b]h]UXUb'UbUng]g' lc'Xñfa]bYh'YW'gYcZk\U]k YdYfW]j YXlc'VYUa Uhf]U']bW]UgY]b'hYbi a VYf' cZWgca Yf'Wa d'Ublg'Zca 'hY75C'žUg'XgM]VX]b'ci f'C WcVf'%Sž&S%'Z]b[]b' 8 cWñiBcg"9ž, SS=]S&]S&' ('UbX9ž, SS&#A !%&' , ' "'G VgYei Ybhlc'ci f'Z]b[ž

k YWbhbi YXlc kcf_k]h`h`Y75C`lc`Ybg`fYk`Yk`YfYdfcdY`mf`WfX]b[`
Î`Wa`d`U]bhj`UbXÎ`]bei`f]Yg`Wbglh`bkh`]h`dfY`U`]b[`75C`dfch`W`g`UbXVY`]Y`Y`
ci`f`fUW]b[`]g`Wbglh`bkh`]h`h`YdfY`U`]b[`75C`dfch`W`g`5`gk`YX]g`W`g`YX`]b`ci`f`
Z`]b[`žh`YWU]b`Y]b`75C`dfch`W`V`]bb]b[`]b`&S%`]bj`U]XUhg`h`Yg`Uhg]W`
Zci`bX]h`cb`cb`k`\\W`h`YdfY`g`bhE`GD`W`g`ca`Yf`Wa`d`U]bhg`dYfZ`fa`UbW`h`fYg`c`X`
fYg`ž`a`U]f]U`m]b`W`U`g`h`Y7`ca`d`U]bh`f]g`c`Z`Z]b`U]b`W`U`d`Y`U]h`ž`U]b`X`f`Y`b`X`f`g`
\\]g`cf]W`Wa`d`U]f]g`cb`g`c`Z`ci`f`dYfZ`fa`UbW`]bj`U]X`

5HUWa`Ybh>DU`Yg`!`%`W`bh]b`]bZ`fa`U]h`cb`cb`Wa`d`U]bhg`\\UbX`Y`X`i`dcb`]b]h]U`
]bei`]frk`]h`]b`h`Y7U`7`Y`bh`f`g`9`ZZ`W]`Yk`]h`ci`f`&S%+`5`bbi`U`f`Y`d`c`f`ž`h`YÎ`<`|`\\`
6`]İ`W]M[`c`f`m`c`b`d`U`Yg`h`f`ci`[`\\`%`b`c`k`]bW`X`Y`g`Wa`d`U]bh`W`g`f`Y`U]h`X`h`c`
X`W`i`d`]b[`]g`g`Y`g`A`c`f`Y`g`d`W`Z]`W`X`U]`g`f`Y`U]X`]b[`X`W`i`d`]b[`Wa`d`U]bh`g`W`b`V`
Zci`bX`]b`ci`f`U]bbi`U`f`Y`d`c`f`h`Z`Y`X`cb`Y`fi`U`f`m`ž`&S%`]b`8`c`W`h`i`B`cg`9`S`S`&#`F`!`%`!
,`*`,`UbX`9`S`S`&#`,`F`!`%`!`,`&`*`"

588-HCB5@F9DCFHB; F9EI -F9A9BHG`

5" A`Ymf`9ei`]da`YbhA`UZ`bW]cbg`Hf]ZZ`5bbi`U`F`Y`d`c`f`h`

=b`Wa`d`]UbW`k`]h`h`Y7`ca`a`]g`]c`b`ž`C`f`X`Y`X`U]h`X`B`c`j`Y`a`V`f`"`S`ž`&S%`]b`8`c`W`h`i`
B`cg`";`S`S`&#`7`=`\$`!`,`+%`UbX`9`ž`S`S`&#`A`!`\$`!`&&`ž`k`Y`d`f`c`j`]X`Y`U`f`Y`]k`UbX`f`Y`d`c`f`h`c`b`h`Y`
Z`c`ck`]b[`]h`a`g`f`Y`U]b[`]h`ci`f`A`Ymf`9ei`]da`YbhA`UZ`bW]cbg`Hf]ZZ`

- J`c`i`a`Y`c`Z`=`b`j`Y`g`h`]`U]Y`U]b`X`F`Y`a`Y`X]U]Y`:`]Y`X`c`f`X`f`g`/`
- J`c`i`a`Y`c`Z`=`b`j`Y`g`h`]`U]Y`U]b`X`F`Y`Z`f`:`]Y`X`c`f`X`f`g`/`
- J`c`i`a`Y`c`Z`F`Y`a`Y`X]U]Y`I`dcb`F`Y`Z`f`f`U`:`]Y`X`c`f`X`f`g`/`
- 5`j`Y`f`U`Y`f`Y`g`d`c`b`g`Y`h`a`Y`Z`c`f`Y`U`W`c`Z`h`Y`U`V`c`j`Y`W]M[`c`f`]Y`g`V`n`i`a`c`b`h`UbX`n`Y`f`/`
- A`]b`]a`i`a`X`U]g`ž`a`U`]a`i`a`X`U]g`ž`U]b`X`g`U]b`X`f`X`X`Y`j`]U]h`c`b`g`Z`c`f`Y`U`W`W]M[`c`f`m`
UbX`
- J`c`i`a`Y`c`Z`Y`I`W`X`X`Z`Y`X`c`f`X`f`g`"

=b`g`a`a`U`f`r`ž`k`Y`d`Y`Z`c`fa`Y`X`k`]h`]b`h`Y`Z`Y`X`f`Y`g`d`c`b`g`Y`d`U`f`a`Y`m`f`g`d`f`Y`g`W]V`X`]b`ci`f`
h`f]ZZ`W`a`d`Y]b[`U]h`c`U`c`Z`ž`**`Y`W]M[`W`b`X`ž`+`\$`b`U`i`f`U`[`U]g`c`f`X`f`g`k`]h`Ub`U`j`Y`f`U`Y`
f`Y`g`d`c`b`g`Y`h`a`Y`c`Z`"`\$`U]b`X`("\$`X`U]g`ž`f`Y`g`W]M[`Y`m`K`Y`U`X`X]h`c`b`U`n`i`W`a`d`Y`h`X`%`&`
Y`W]M[`W`b`X`)`%`b`U`i`f`U`[`U]g`Z`Y`X`c`f`X`f`g`Z`c`f`k`\\W`k`Y`Y`I`d`Y`]b`W`X`U`W`g`g`U]b`X`#`c`f`
Y`b`j`f`c`b`a`Y`b`U`]g`g`Y`g`ž`V`h`U`c`k`U`Y`9`I`W`g`c`b`g`i`b`X`f`h`Y`h`f]ZZ`K`Y`d`f`c`j`]X`Y`c`i`f`
X`U]Y`X`f`Y`g`]g`U]g`5HUWa`YbhC`"

..

6" A 5= ="

=b`Wa d`]UbWk]h`cfXf]b[`dUfU fUd\ " &cZhY7ca a]gg]cb]g: =B8=B; GC: : 57HŽ
7CB7@ G=CBGž5B8 CF89F]gg] YGXdhVa Vf" ž&S%]b`8 cWWhB c"9SS&#, F!%&
- *%žUbX]b`cfXf]b[`dUfU fUd\ " !7`cZhY7ca a]gg]cb]g`C fXf`XUX: Yfi Ufm ž
&S%]b`8 cWWhB cg"9SS&#A !% !& %UbX9SS&#A !% !& (- žk Yk]` Wbh]bi Yhc`
dfcj]XY]bZcfa U]cb`cb`Uj U]UYA 5= =fA ca YbhUfmj YfU Y=bhffi dhcb`
: fYei YbWbX]LXUUG`5HUWa YbhB`%dfcj]Xgci f`A 5= =dYzfa UbWZca`&S%`hc`&S%`
K YbchY`hUh5HUWa YbhB`%dfcj]Xgci f`A 5= =dYzfa UbWZca`&S%`hc`&S%`
cb`Ubcfa U]nXV]g]g]g]b[`h`Y&) `VfUa YhcXci h]bYX]b`=999`%`**!&S%&`"b`
UX]hcbž5HUWa YbhB`%]bWXYg]bc]bcfa U]nXj Ui YgdYf`h`Y7ca a]gg]cb]g`
XV]g]cb]b`8 cWWhB c`9SS&#A !% !& - "

7" 79A =UbX79@=A Yf]Wg`

=b`8 cWWhB c"9SS&#A !% !& - žhY7ca a]gg]cb`XfYWX`h`Y7ca dUbrtc`Wbh]bi Y
dfcj]X]b[`79A =fWgca YfgYl dYf]YbV]b[`a i`hd`Y]bhffi dhcbg]UbX79@=
fWgca YfgYl dYf]YbV]b[`Yb]h`n]bhffi dhcbg]dYzfa UbWXU`5HUWa YbhD`
dfcj]Xgci f`79A =dYzfa UbWZcf`&S%`hc`&S%`Zcf`(`ž) `UbX*`cf`a`cfYci`h]`Yg]b`U
nUf`"b`UX]hcbž5HUWa YbhD`g`ck`g`79@=XUJZcf`h`Yg]a`Y]a`Y]Ua`Yzcf`
Wgca YfgYl dYf]YbV]b[`ci`h]`Yg`U]g]b[`*ž%&UbX&` `ci`fgcf`cb]`Yf`"6ch`a`Yf]Wg]UfY
dfYg]bhXi`g]b[`XUJZcf`U`X]ngfk`]h`g`ca`g]UbXbcfa U]nXXU`"

K YbchY`hUh`h`Y=999`8]gf]M`hcb`FY]U]`]mK`cf_]b[; fci`d`Xc`Yg]bch`VbWa`Uf`
79A =cf`79@=UbX`h`Y9X]gcb`9`Wf]Wbg]h]h`Yf]9=L`VbWa`Uf`_]bZcfa`U]cb`Zcf`
79A =]g]dfcdf]Yf]m]UbX`h`i`g`k`YUfYi`bUV`Yhc`g`UfY]h`" <`ck`Yj`Yfžh`Y79A =
]bZcfa`U]cb`]b`5HUWa`YbhD`]g]ga`]Uf`]b`a`Yf]WXYg]`[b`hc`k`h`99=i`gYgfk`h`W]g`
h`YWi`bhcZW]gca`Yfgk`c`Yl`dYf]YbV]b[]i`bi`a`Vf`cZci`h]`Ygcf`a`cfY]b`UmUf`
V]g]Xcb`bcfa`U]nXXU]L`V]g]Xcb`g]Y`YfU`Wi`b]g`cZci`h]`Yg`"

8" 9g]a UHXFYg]cfU]cb`H]a`Yg`

7cbg]g]Ybhk`]h`h`Y7ca a]gg]cb]g: Yfi Ufm ž&S%`C`fXf`]b`8 cWWhB cg"9SS&#A !
% !& %UbX9SS&#A !% !& (-`k`Ydfcj]XY]bZcfa U]cb`cb`h`Y7ca dUbr]g]YZcf]g]hc`
a`U]g`fY9g]a`UHXFYg]cfU]cb`H]a`Yg]f]9FH]g]UbX]hc`W`a`a`i`b]W]Yk`]h`ci`f`
Wgca`Yfg`"h`Y7ca dUbr]g]U`fYX]hc`dfcj]XY]g`a`a`Ufm]9FH]XU]cb`U]c]b[!`
Zcfk`UfXV]g]g]g]dUf]hcZh`Yg]5bbi`U`fYdcf]g]UbXdfcdfg]X`h`YXU]k`ci`XWY`
g]a`a`U]nXU]g]hc`h`YUW]U]W]cZci`f`9FH]Yg]a`U]g]Zcf`h`YW]YbXU]mUf`"

Measurement of ERTs

H\YVffYbhXUza YfjVá YUg fyGUMi U'fyGcfUjcb'ha Ygk \JW'cVWffYXk Jh'Jb' - \$'a Jbi hYgdf]cf'lc'h'Ydi V]g\YX9FH'i d'lc' \$'a Jbi hYgUMf'h'Ydi V]g\YX9FH' Cb'Ua cbh' m'Uggh'Y7ca dUbridi `gm'Uf!lc!XU'YXU'Zca 'Jhg'B Yk cf_ ' A UbU'Yá YbhGng'Yá 'fB A GL'h'Uj]h'Yá Jn'Yg'YUW'ci hU'YUcb['k Jh' Ugg'VW'X ci hU'YXU'Ug' W'Ug' f]L'ha YcZci hU'Y'f]L'bi a V'f'cZ'W'g'ca Yfg'ja dUM'X'Z Jbh'ffi dh]b['Xy J'W'f]L'Y' Y'cZci hU'Y'f]L'Y'g'ha U'X'f'Y'g'cf'U'j'c'b'ha Y'f'F'F'HE: df'Y'X'Y'f'a Jb'Y'X'V'm'h'Y'7ca dUbr'U'X'f]L'UM' U'fyGcfUjcb'ha Y' H'Y Jb'Z'ca U'j'cb' J'gi g'X'lc' U'U'm'Y'h' Y'U'W'f'U'W'c'Z'ci f'Y'g'ha U'X'f'Y'g'cf'U'j'c'b'ha Y'g' k \Y'b'W'a d'f'Y'X'lc' h'Y'UM' U'fyGcfUjcb'ha Y''

5g'h'Y'7ca dUbr'U'g'b'ch'X'J'b'd'U'g'U'bbi U'fy'G'c'f'g'z'h'Y'9'F'H'U'W'f'U'W'a Y'U'g' f'Y'a Y'bh'J'g' U'k'cf_ 'J'b'd'f'c[f'Y'g'U'b'X'f'Y'Z'b'Y'a Y'bh'g'k'Y'f'Y'a U'X'Z'c'f' &S%' " H'Y'c'f][J'b'U' &S%' 'lc' &S%' + d'f'Z'c'fa U'b'W'W'a a i b]W'X' U'g'm'U'f' J'b'W'X'X'h'Y'Í J'b]h'U'Í '9'F'H'g'f'7'c'X'Y' =L'z'k \J'W'J'g' h'Y'g'U'b'X'f'X'h'f'Y' \ci f'Y'g'ha U'Y'i g'X'k \Y'b'U'b'ci hU'Y'J'g'f'Y'c'f'f'X'i bh' 'k'Y' \U'Y' U'X'J'h'c'b'U' J'b'Z'ca U'j'cb' " G'h'f]h]b['J'b' &S%' z'k'Y'f'Y'a c'j' Y'X'h'Y' J'b]h'U'9'F'H'g'Z'ca 'h'Y' W'W'U'j'c'b' f'U'b'X'U'g' g'c'd'd'Y'X'W'a a i b]W'f]b['h'Y' J'b]h'U'9'F'H'lc'ci f'W'g'ca Y'fg' " H'Y' &S%' 'a Y'f]W'J'b'W'X'X'9'F'H'g' J'b'Y'f'U'X'V'm'ci f'a c'X'Y' f'k \J'W'J'g'V'U'g'X'c'b'h'Y'ja dUM'X' X'y J'W'f]L'U'X'U' [cf]h'a g'J'U'b'X'9'F'H'g' Y'bh'f'Y'X'V'm'Z'Y'X'U'b'X'W'bf'c' `W'bh'f' d'f'g'c'bb'Y'' " H'Y'a c'X'Y' i g' U'm'd'f'c'j' X'Y'g'U'b'Y'g'ha U'Y'k J'h'J'b' % 'a Jbi hYgUMf' bch'Z'W'j'cb'c'Z'U'b' ci hU'Y' H'Y'S'lc' - \$'a Jbi h'Y'k J'b'X'c'k 'c'Z'U'W'f'U'W'J'g'g'J' 'i g'X''

K Jh' h'Y'Y'ja Jb'U'j'c'b'c'Z'h'Y'i g'Y'c'Z'Í =b]h'U'Í 'f'7'c'X'Y' =L'9'F'H'g' J'b'ci f'a Y'f]W'k'Y'd'f'c'j' J'X' h'Y'Z'c'ck Jb['H'V'Y'k \J'W'g'a a U'f]n'Y'g'h'Y'U'bbi U'd'f'W'bh'U'W'f'U'W'c'Z'9'F'H'Y'g'ha U'Y'g' d'f'c'j' J'X'X'lc' Y'Y'f]W'W'g'ca Y'fg' J'b'h'Y'B'G'D'A 'C'd'f'U'j]b['7'ca dUbr'U'g'k'Y' U'g'h'Y' A Jbb'Y'g'c'U' > f]g'X'W'j'cb'Z'c'f' h'Y'm'U'f'g' &S%' 'h'fi' &S%' .

Estimated Restoration Time Accuracy (Codes S, O, C)					
Entity	Accuracy Criteria	2015	2016	2017	2018
NSPM	Within -90 to +0	44.3%	45.9%	43.5%	43.6%
MN Only	Within -90 to +0	43.3%	45.7%	43.1%	43.5%

18i Ylc' a Yf]W'Y'Z'b'Y'a Y'bh'z' &S%' 'lc' &S%' + f'Y'g' J'g'U'f'Y'b'ch'W'a d'f'U'V'Y'lc' d'U'g'5'bbi U'f'Y'c'f'g'

&S%' '7'cb]h]bi ci g' =a d'f'c'j' Y'a Y'bh'9'Z'c'f'g'

G'ja J'U'f'lc'k \U'h'k'Y'X'X'J'b' &S%' z'k'Y'W'bh]bi Y'X'lc' Z'b'Y'h' b'Y'ci f'a c'X'Y' U' [cf]h'a 'V' J'h' J'b'lc'ci f'B'Y'k'cf_ 'A UbU'Yá Y'bh'Gng'Yá 'fB A GL'lc'ja d'f'c'j' Y'ci f'U'bbi U'9'F'H'U'W'f'U'W' ' =b' &S%' z'h' J'g'c'd'h'ja J'n'U'j'c'b'k' U'g'U'd'd'f'c'l'ja U'Y'm'U'k'c' \ci f'k' J'b'X'c'k 'c'Z'X'Y'Z'b'Y'X'U'W'f'U'W'h' V'U'g'X'c'b'UM' U'ci hU'Y'f'Y'g'cf'U'j'c'b'W'a Jb['J'b'Y'k'Y'b' - \$'a Jbi hYgdf]cf'lc'h'Y'9'F'H' Y'g'ha U'Y'U'b'X'i d'lc' " \$'a Jbi hYgUMf' h'Y'9'F'H'Y'g'ha U'Y'' < c'k' Y'f'Z'U'g'k'Y' J'b'X'W'X'U'g'h'

..

mUfza Uf_YhfYgUfWg\ck YXhUhWgca Yf_gUhgZUMcb'k Jh '9FH Ygja UYUWMFUWh
ZU'gcZZg\Ufd'mZcf'Ubn'9FH Ygja Uhg'k \YfYh YUWU U'fygcfUjcb'ha YcVMfg'Uhf'
hUb Ygja UHX''6i hk \JYk Yg\cfhbYXci f'k JbXck 'cZXYZbYXUWMFUWhc - S'
a Jbi hg'VYZcfY9FH Ygja UY'Ubi d'lc 'S'a Jbi hg'UZYf'h Y9FH Ygja UHzk Yh Yb'
bYXXlc 'ZbY'h bYci f'BA Ga cXY'fci bXh'lg'g\cfhf'k JbXck zk \JW'k YXj'j'
&S% ''''

-b'UXXj'cb'lc'fy j'gb| 'hYa Yuj'fYa YbhXYg| b'UbXa cXY'Jb'&S% zk YUgc'Jb|j'UHX
Ub'YZcfhlc'kcf_'k Jh'ci f'ZfghfYgcbXf'g'lc' d'fcj JX'Ya cfYI'a Ubi U'i' f7cXY7L9FH
Ygja Uhg'Zca 'ci f': JYXUbX'7cb'lc'`7Yb'f' d'f'g'bbY'cbW'h Ym'Uff'j YX'cb!g'h'i'
UbXk YfYU'Ylc' Ugg'Yg'h YW'g'cZ'h Yci hJ'YubXXX'f'a JbY'h YbW'g'f'm
fYa YXj'U'cb''H\g'YZcfh'X'lc' Ugl| b|Z'Wbh|b'VMU'g'Y'Jb'h Ybi a V'f'cZ'7I' : JYX9FH
i dX'Uhg'd'fcj JXX'lc'ci f'W'g'ca Yf'g''K \JYk YU'j Yf'U'Y'X'cb'm' z& 'a Ubi U'9FHg'
Ubbi U'm'Z'ca '8S%' h'fi '8S%+zk Y|b'VMU'g'X'h Ybi a V'f'cZ'a Ubi U'9FHg'd'fcj JXX'lc'
ci f'W'g'ca Yf'g'lc' Udd'f'cl'ja UY'n'f'8S' S'S'Jb'8S%' ''I bZ'f'hi bU'Y'r'aci f'c'j YfU'9FH'
5VMFUWha Yf'j'W'Y'g' 'h|b'8S%' f|' '* d'f'V'W'h'g'U'Y'X'f'Y'U'hj Ym'Z'U'hk Jh'8S%+f'Y'g' 'lg'
f|' ') d'f'V'W'h'lc' 'H'Y'f'Y'U'g'cb'k YX'X'b'c'h'g'Y'c'j YfU'9FH'ja d'fcj Ya Ybh'Z'ca '8S%+lc'
&S% 'k U'g'h'U'hk \JY'ci f'a Ubi U'f'7cXY7L9FHg'ja d'fcj YX'Z'ca '&'+'d'f'V'W'h'lc')% ,
d'f'V'W'h'z'h YU'W'F'U'W'c'Z'ci f'I'c'b!G'h'i' f7cXYC'L9FHg'f'k \JW'U'f'Y| Yb'Y'U'X'V'n'h'Y
BA Ga cXY'L'Z'Y'`c'Z'Z'ca '(S'* d'f'V'W'h|b'8S%+X'c'k'b'lc' "% d'f'V'W'h|b'8S%' ''K YU'f'Y
W'f'f'Y'b'h'm'f'Y| Jk Jb| 'h'Y'X'f'j Yf'g'cZ'h Y7cXYC' f'Y'X' W'cb'Jb'U'W'F'U'W'U'b'X'd'U'b'lc'a U_Y
Z'f'h'Y'U'X'i'g'a Yb'lg'lc'h'YBA Ga cXY'lc' W'f'f'W'Z'c'f'h'lg''

A YfjV8 YZb|j'cb'7cb|bi Yg'lc'9j'c'j'Y

: cf'8S% 'k Y'W'bh|bi Ylc' X'lg'W'g'g'h YX'Z'b|j'cb'c'Z'h Y9FH'5VMFUWha Yf'j'W'U'b'X'\ck'
Jh'W'b'Y'gh'V'Y'U'X'i'g'h'X'lc' W'h'i'f'Y'h Yd'f'V'W'h'cb'c'Z'ci f'W'g'ca Yf'g'U'g'a i W'U'g'
dc'g'g'V'Y''Hc' h'U'h'Y'b'X'z'k YU'f'Y'b'c'k 'W'bg'X'f'Jb| 'cb'm'i'h'|n|b| 'h'Y'Z'b'U'9FH'i dX'U'Y'
W'a a i b|W'Y'X'lc'ci f'W'g'ca Yf'g'X'i f|b| 'Ub'ci hJ'Y'f'U'h'Y'f'h'U'h'W'h'f'Y'U' h'Y9FH'
i dX'U'g'h'Y'm'f'W'j YX'i f|b| 'h'Y'W'i'f'g'Y'c'Z'U'b'ci hJ'Y''C'b'U'j Yf'U'Z'h'Y'f'Y'f'Y'i d'lc' h'f'Y'Y'
9FH'Y'g'ja U'h'g'h'U'hk Y'W'f'f'Y'b'h'm'W'a a i b|W'Y'lc' U'W'g'ca Y'f'X'i f|b| 'Ub'ci hJ'Y'Y'j'Y'h'

- 7cXYG'`H'Y'Z'f'g'h'g'h'Y'G'g'h'a [Yb'f'U'X'9F'cb'W'h'YBA Ga cXY'
Y'g'U'U'g'V'g'X'cb'h'Y'W'g'ca Yf'g'W'Jb| 'Jb'Z'c'f'h'Y'ci hJ'Y'Y'j'Y'h'i'
- 7cXYC.'`7cXYG'lg'h'm|J'W'm'z'`ck YX'V'm'U'b'c'b!G'h'Y'9FH'Y'g'ja UY'h'U'i
c'W'f'g'k\Yb'ci f'Z'f'ghf'Y'g'cb'X'f'g'U'f'f'j' Y'cb'g'h'Y'Jb'h'Y'Z'Y'X'U'b'X'V'J'Jb'h'Y'f'
Jb'j'Y'h| U'j'cb''H\g'lg'U'g' d'fcj JXX'V'n'h'YBA Ga cXY'z'V' h'f'Ya c'j'Y'g'f'U'Y'Y'
h'a Y'Z'ca 'h'Y'Y'g'ja UY''

- 7cXY7. ∴]bUñ]b'a cñWgYgzk YfYei]fYci f'ZYXdYfgbbY'hc' dfcj]XYU a Ubi U'i dUX9FHf7cXY7LcbW'h YmLFYUYhc UgYg'h YW gYcZH Y ci HJ YUBXXMfa]bYh YbWgUfmfYa YXU]cb'UM]cb"

Communicating ERTs to Our Customers

K Ydfcj]XYgY YfU' dfcUM] YWa a i b]W]cb' WubbYgk \Yb'Ub'ci HJ YcWf'gg' W' Ug' Ya U]zhM lzUbXdi g' bch]Z]W]cbj]Uua cV] YUdd" K YUgc' dfcj]XYbch]Z]W]cb' WubbYg'h UhfYei]fYh YWgca Yf'hc' di "h Y]bZfa U]cb'g' WUg' ci f'k WghZg'WU' a YX]UubXci HJ Ya Udg"

K \Yb'Ub'ci HJ Y]g]X]bh]ZYXZub]b]hU'U' hca UHXa YggU Y]ggYbhc' h' YWgca Yf'" H]ga YggU YWbZfa g'h Yf'ci HJ Y]Zh YmfYdcfhX]zcf' bch]ZYg'h Ya 'cZub'ci HJ Y k YVY]Y Y]g]a dUM]b['h' Ya "'5b'9FH]g'bchWa a i b]W]X]b'h Y]b]hU'a YggU Y' 5Zmf' &S'a]bi h'g'cZub]X]bh]ZYXci HJ YZubch Yf'U' hca UHXa YggU Y]ggYbhd'fcj]X]b[' Ub' i dUX'" =Zub'9FH]g'Uj U]WYz]hk'ci 'XVYdfcj]XXUih]g'h'a Y' '5XX]hcbU' a YggU Yg'hc' h' YWgca Yf' Xi f]b['h' Yci HJ Yk]" VYXdYbX]bhc'9FH WUb[Ygcf' h' Y ci HJ YVY]b['W'gYX" H' YZ]bU'a YggU Yh' YWgca Yf' fW]j Yg'k]" WbZfa 'h' Yf' dck Yf' \Ug'VYb' fYgcfYX'" =Zh YWgca Yf' g] " \Ug'Ub'ci HJ YZh YZ]bU'a YggU YUgc' d'fcj]X]g'h YWgca Yf' k]h' Uk Uhtc' fYdcfhk]h']b' M hcf' U']b_ 'hc' ci f'cb']b' YfYdcfh' Ub'ci HJ Yhc'"

Di " WubbYg'fk WghZg'WU' a YX]UubXci HJ Ya UdL' Y YfU' Yh' Yg'la YXU]gci fWg' Ug'ci f' di g' WubbYg'" H]g' Ybg' fYg' Wbg'g'h]b]bZfa U]cb' U]cgg' WubbYg'UbX d'fcj]X]g'UX]hcbU' fYgci fWg'hc' ci f' Wg'ca Yf'" 7i g'ca Yfg'Wb' Ugc' fW]j Y]bZfa U]cbj]Uk' c!k UhtM h' '5' Wg'ca Yf' Wb' hM hi g' I CI H' hc' fYdcfh' Ub' YW]W ci HJ Ycf' IGH5H' Ub' XfW]j YUb' cb! Xa Ub' XhM ha YggU YUg'hc' h' Yg' h' i g'cZh Yf' ci HJ Y'

7i ffYbhñh Ydf]a Ufrikcf_ V]b['XcbYhc' UXXYg'ci HJ YWa a i b]W]cb']a d'fcj Ya Ybg']g' fci bX'Wb]bi YXUX' YfYbW'hc' b'Yk' d'fc' WggYg' di h]bhc' d'UW' Ugi mU' h' U]Ybg' fYi dUX]g'Zca 'h' YZYXUbX'Wb]hc' 'Wb]hf' UfYXcbY]b' U]h'a Ym]bX U]WfU]h'a UbbYf'" H]g'k]" VYXcbYh' fci [\ fYZYg' Yf' h' U]b]b['UbXUgc' U]]ba Ybhc']bXj]X] U' dYZca UbW'a Yf]W' '5' g'cZh YfY]g'W' U'cfU]cb']b]h'fU' n'hc']bj Yg]]U' Wg'ca Yf' ZYXUW'hc']X]bh]Zicddcfh' b]h]Yg'Zcf']a d'fcj Ya Ybh'"

9" D'UbbYXci HJ Y7ca a i b]W]cbg'

H' Y7ca a]gg]cb[]fUb]X'h Y7ca dUbn]Uj Uf]UbW'hc' i g'Y] dfYg'Wg'ca Yf' Wa a i b]W]cb' d'fYZfYbWg']b' Wa a i b]W]b[' d'UbbYXci HJ Yg'hc' Wg'ca Yf'g]b'

..

8 cWYhB c"9SS&#A !%+)) ' " :b\hUhdFcWYX]b[žk YWa a]hXlc`dfcj [XYUf]YZ
i dXUf]b\h]g'fYdcfhX]gWgg]b[`ci f`dfc[fYgg]b]a d`Ya Yb]b[`UbYk `D'UbbYXC i hUj Y
7ca a i b]W]hcbgng]h`a `Ucb[`k]h`h`YZc`ck]b[]bZcfa U]cb.`

- Bi a Vf`cZWg]ca Yfgk`c`cdhX]b]h`c`dfYZfYbWg/
- CZh`cgYWg]ca Ygž`ck`a UbndfYZf`YUW`hdYcZWa a i b]W]hcb/
- H\Ybi a Vf`cZWg]ca Yfgk`c`WUb[Ycf`WbW`h`Yf`dfYZfYbWgUbXg]hX
fYU]cbž[Z_bckb/UbX
- H\Y7GF`k]`Wb]bi Ylc`]bW`XYg]h]g]W]cb`Wg]ca Yf`Wa d`U]bg"

5gcZ8 YWa Vf` %ž&S% ž%ž \$) ž - %L W`9bYf[m]Wg]ca Yfg`Uj YcdhX]b]h`c`fYW]j Y
ci hUj Ybch]Z]W]hcbg]l` (*' ž)) `lc`fYW]j YYa U]g/), (ž) - `lc`fYW]j YHM`h#CA G`
a Ygg]U Yg/UbX& +ž+ž+`lc`fYW]j Yd`cbYbch]Z]W]hcb`cZ]h`Yci hUj Y`K`YWMffYbhmXc`
bch]fUW]Wg]ca Yfgk`c`WUb[YdfYZfYbWgž`UbXk`YXc`bchUg`Zcf`UfYU]cb`VZcfY
U`ck]b[`UW]g]ca Yf`lc`WUb[Yh`Yf`Wa a i b]W]hcb`dfYZfYbWg`K`YWbž`ck`Yj Yfž
dfcj [XY]h`Ybi a Vf`cZWg]ca Yfg]h`U`Uj YcdhX]ci hcZdfYZfYbWgž`Ug`Zc`ck`g`"

- HM`h#CA G`%ž, *
- 9a Uj.`%ž - (

:]bU`h]g]b[`cZ]h`Yd`UbbYXci hUj YWa a i b]W]hcbg]g`WffYbhm]W]b[`k`cf`_YX
h]fci [\ `k]h`U]hUf[Y]hcZ]a d`Ya Yb]h]cb`lc`V]]b]h`Yg]WbXei U]h]f`cZ&S%`".....

: " 7i g]ca Yf`GU]g]Z]W]hcb`"

H\Y7ca a]gg]cb]g: Yfi Ufm`ž&S% `C`fXf`]b`8 cWYhB cg"9SS&#A !%+!& %UbX
9SS&#A !%+!& - fYei]fYg]h`U]k`Ydfcj [XY]b]Zcfa U]cb`fY[U]X]b[`h`Y7ca d`Ub]gž
]b]h]fbU`Wg]ca Yf`g]h]g]Z]W]hcb[`cUgž`UW]a d`U]g]cb`cZ]h]g]dYfZcfa UbW]h`h`cgY[`cUgž
UbXUb`Yi d`Ub]h]cb`Zcf`h`YU]g]cZ]h`Y[`cUg`" `D`YU]g]gY5]hUW]a Yb]h`F`Zcf`
]b]Zcfa U]cb`cb`ci`f.`

- &S% `7i g]ca Yf`GU]g]Z]W]hcbg; `cUg]UbX]DYfZcfa UbW`
- 6U]fci bXcb`HfU]g]W]hcb`G`fj Yng`
- G]h]b[`h`Y&S% ; `cUg`
- >8 `Dck`Yf`]b]Zcfa U]cb`]b]W]X]b[`&S% `dYfZcfa UbW]V]m]M]cf]Yg`

.....

) `5ddfcj YX]b]h`YB`cj`Ya`Vf`ž&S%`C`fXf`"
* `7i g]ca Yfg]W]b]g]d]W]h]ca`cfY]h`U]b`cbY]Wa`a`i`b]W]h]cb`W]Ub]Y`dfYZfYbW`H`YfZcfY]h`Yg]bi`a`Vf]ga`U]n
bch]YfYdfYg]b]h]U]j`YcZi`b]ei`YW]g]ca`Yf`Wi`blg`"5`"bi`a`Vf]gfY]Z]W]h]cb`U]g]Zcf`U`L`W`9bYf[m]W]g]ca`Yfg`"

..

; "" =bg]li hYcZ9`Wmf]W UbX9`Wmfcb]W9b[]bYf]gf#999L6YbWa Uf_]b[...

=b`hY7ca a]gg]cb]g: Wfi Ufm ž&S% `C fXf`]b`8 cWYhB cg"9SS&#A !% !& %UbX
9SS&#A !% !& - žhY7ca dUbnk UgX]fYWXhc`dfcj]XYXUcb VbWa Uf_]b[`k]h`
bU]cbU`=999 FY]U]]hm]GubXfXg"...

K YdUf]M]U]]b`hYfY]U]]hm]VbWa Uf_]b[`g fj Ymg]cbgcfYXVn]hY=999`
8]gf]M] hcbFY]U]]hm]K cf_]b[; fci d" =b`5HUWa YbhE` k Ydfcj]XYhY&S%`
VbWa Uf_]b[]bZc`Zcf`G5=8=UbXG5= =žk \]W]g]hYa cghWffYbhUbX]y U]UY
VbWa Uf_]b[`m]fZcf`YUW`cZLW`9bYf[n]`cdYU]b[`Wa dUb]g" `K Yg Va]h
dYfZfa UbWfYg]g]h`hYg fj Yr]h]hYcdYU]b[`Wa dUm]y Y" `K YUX]]hcbU`m
dfcj]XYLW`9bYf[nfc`i d] Ui YgZcf`Wbj Yb]YbWcZWa dU]gcb"...

< "" =b]M]g]X; fubi `Uf]hrcZF Y]U]]hm]8 YU]`

5b`ci hWa YcZhY7ca a]gg]cb]g`Wbg]XfU]cb`cZci f`&S%` UbX&S%` 5bbi U`
FYdcf]g]k UgUfYei Yg]Zcf`hY7ca dUbn]c` UXXfYg]k Uhg]]b`k \]W]ci f`fY]U]]hm
]bZcfa U]cb`Wi` XWYdfYg]bhX]b`Ua cfY[fubi `Uf`a UbbYf`hc`] YhUV]h]f`g]bg]cZ
fY]U]]hm]b`hY`Wb]h]icZhYW]g]ca Yf`Yl dYf]YbW` HfUX]]hcbU`n]k Y`U] YdfYg]bhX
h]g]]bZcfa U]cb`U]U]k cf_`Wb]h]f` `Y Yžk \]W]UfY`Uf` Ydcf]hcbg]cZci f`g]fj]W]UfYž
V]M] g]h]g]g]hY`y Y`cZX]U]` Wb]h]a d`U]XVn]hY7ca a]gg]cb]g]Fi` Yg]cb`
FY]U]]hm]FYdcf]h]b[`F`Yei]fYa Yb]g]fA]bb" F"+, &`S) S]S]ZFY]U]]hm]GubXfXg]fA]bb"
F"+, &`S* S]S]ZUbXFYdcf]h]b[`A Y]h]f`F`YUX]b[`DYfZcfa UbW]fA]bb" F"+, &`% S]S]`
6Yck`k YX]g]W]g]g]Y`fU`cd]hcbg]Zcf`dfcj]X]b[`hY]]bZcfa U]cb`]b`Ua cfY[fubi `Uf`
a UbbYf"...

1. Feeder Locations

G]f]h]b[`k]h`ci f`&S%` fYdcf]h]b]Wb]h]bi]b[`k]h`h]g]fYdcf]h]hYk`cf]g]idYfZcfa]b[`
ZYX]f`]bZcfa U]cb`]b`5HUWa Ybh9`]bW`X]g]W]i a bg]h` bch]hY`city`k \ YfYhY`
ZYX]f]g]g] Vg]U]cb`]g`c`W]X]U]g`U`c`W]h]cbU`fYz]fYbW"...

.....
+FY]U]]hm]a Yf]W]Wa dU]g]cb]g]Xc`bch[]j YUb`c`V]M] YU]g]Yga Yb]icZei U]hrcZcdYU]hcbg]cZdU]h]M]U]h]b[`
i]h]h]g]U]X]U]g]g] W]M] hcb`g]ci` XWY]Yf]W]g]Xk \ Yb`Wa dU]b[]a Yf]W]g]cZ]Z]fYb]h]h]h]g]" =999! V]g]X
VbWa Uf_]b[]i`g]g]hYg]a YW]W]U]cb`a` Yh`cXZcf`U` dU]h]M]U]b]g]`ck`y`fzX]U]X]Z]fYb]W]g]Y]g]h]U]X]U]
Zca` X]Z]fYb]h]h]h]g]a` U]b]ch]V]X]f]W]m]i`Wa dU]V]Y]]bW`X]b[` X]Z]fYb]W]g]]b`X]U]W` W]m]cb`g]h]a`g]UbX
ci]U]Y]M] g]"

`H`Yg] fj Y]f]W]j YX`-` Yb]f]Yg]cZk \]W` &k`fY]]bW`X]X]]b`hY`Uf[]i]h]h]g]]fci d`UbX]W] Yfg, &a]`cb`
W]g]ca Yfg]k]h]]b`B`cf]h`5a Yf]W`

2. Feeder SAIDI Map

5 Z fh Yf [fUbi Uf]hmgYd]g'ZYXf fY]U]]hmd`chhXcb`Ua Ud" 5HUWa Yblg'G%AbX
 G&dfcj]XYUj]Yk `cZci f`ZYXf`G5=8=dYfZcfa UbWzk \]W'kY\]Y X]ZZfYbh]UhXVni
 W'cf I `]bX]W]b[X]ZZfYbh]Ub[Yg'cZfY]U]]hmgZ`ckg`"

7c`cf`	G5=8=FUb Y
; fYb`	1 0 %\$\$a]bi hG`
6i Y	%\$\$hc %- `a]bi hG`
D]b_`	% \$hc %- `a]bi hG`
FYX`	1 `2 &\$\$a]bi hG`

3. Performance by Customer Class

FY] UfX]b[fY]U]]hmgZcfa U]cb VmWgca Yf W]gZdfYgYbhnik YXc `bchifUW
 Wgca Yf`W]gXUUVmZYXf" K YX]XU]h`a dhlc`gY] fY] U]ZYXfgh`Uhk YfY
 dfYXca]bU]mfYg]Xbh]U`Wa dYfYhc`ZYXfgh`Uhk YfYdfYXca]bU]mfYg]a YfVU`"
 =b`&\$%+zk YZci bX]h`UhZYXfgh`df]a Uf]mgYf]]b[`Wa a YfVU`Wgca Yfg]b[YbYU`UX
 UG5=8=j Ui Yh`Uhk U]g]g[b]Z]Wbh]mY]h`h`Ub`h`YZYXfgh`g]f]]b[`df]a Uf]m
 fYg]Xbh]U`Wgca Yfg" H`Y`&\$%`XU]g`ck YXU]g]a]Uf`fYg`h`5`h`ci [`bchgi X]YXZ
 h`g]g`L`YmX] Ylc`gY] YfU`]h`a g]bW]X]b[.`Ygg] Y] YU]cb]b]b]X] g]f]U`UbX
 Wa a YfVU`UfYgZ`g`cf]h`ZYXfgh`X] Ylc` \] \]f`cUX]b]g]m]fYg`h]b[]b`Ygg]Y] dcg] fY
 hc`h`Y]Yb]]f]c]a Yb]z]UbX` \] \]f`dYfVbh] YcZ]Wgca Yfg]k]h`i bX]f[fci bX]g]f]]W`
 K YXc`bch]Y] dY]h`h`g] YbYU`dYfZcfa UbW]c`j Uf]n]a i W`Zc]a`m]Uf`hc`m]Ufz]UbX`
 h`YfZcfYh`Y7ca dU]mfYg]dY]W] `m]fYei Yg]gh`Uh]h]bch]V]fYei]fY]hc`dYfZcfa`h`g]
 UbU]ng]]b]Z]h`fYU]bi U`m]Z]]b[g`6`YmbX]h`g] YbYU]j]Yk`k`YXcb]h]VY]Y] Y
 dfcj]X]b[X]U]YX]U]g]U]d]f]c]d]f]U]Y]g]b]W]]h]k U]g]V]g]X]cb U]g] a dh]cbg]UbX
 ↑ X] Ya Ybh`"

= " ; f]XA cX]fb]n]U]cb`=a dU]mg`

=b`h`Y7ca a]gg]cb]g]A UfW`%ž&\$%`C`fX]f`]b`8`c`W]h]B`c`"9`\$\$&#A`!%`!&`-`ž`h`Y
 7ca dU]bn]k U]g]X]fY]W]X]hc`dfcj]XYU]X]g]W]g]cb`cZ`ck`[f]X]a`cX]fb]n]U]cb`]b]h]U]h] Yg`
 W]i`X]a`dU]mfY]U]]h]n]a Yf]W]g]UbX`k` \]h]h]W]bc`c`[]Yg]Uf]Y`b]YX]X]hc`U]X] UbW]h]U]W]b[
 cZU]X]h]cb]U`a Yf]W]g`"

H`Y7ca a]gg]cb`W]ff]Ybh]n]a YU]g] fYg]h`Yei U]]h]ncZY]Y]W]f]W]h`]h]mg]Yf]]W]U]f]c]g]g]U
 V]f]c]U]f]Ub[YcZ]g]f]]W]W]h]]cf]]g]]b]W]X]b[`i`h`]m]f]Yg]d]cb]g]j YbYgg]fY]U]]h]mg]Z]h]z
 V]]b[`U]W]f]U]W]UbX`W]g]ca Yf`df]ch]W]h]cb]g` K`Y]Y] dY]W]ci`f`[f]X]a`cX]fb]n]U]cb`Y]Z]c]f]g`
 k] `dcg]h]j Ym]a dU]m]ci`f`g]f]]W]ei U]]h]m`K` \]]Yk`YVY]Y] YfY]U]]h]m]UbX[]f]X`

..

fYg]YbWfYhYa cghfYy UbhUbX]a a YX]UYUg]WmcZgYf]]Wei U]m]hUk]`VY
]a d]WfXVn]b]WUgXgghYa]bhY`]]YbWzchYf'gfj]WfYUga UhVY]a dUfX]c]Yf'
]ha Y`"

K \]Yk Yg]U_ [YbYU`m`fYUci hich]bh]U`cf`Yl dYfX]a dUg]zk YVY]y YUbn
gYf]]Wei U]m]a dUg]fYVghY U] UfX]b`h`YVb]h] hcZg]W]W]f]Xa cXfb]n]h]cb`
]bj Yga Ybhg`": cf`Yl Ua d`Yzh`fYa UhVY]ha Ygk \Yb UVYbWa Uf_`cf`WfWU]cb`
a YhcXc`c[nk]`"bYX]c`"VYUk] gYX]c`"UW]i bhZcf`g]W]W]b]j Yga Ybhg]V]b]`a UXY
]b`h`YgghYa`h`U]fY]l dYfX]c`]a dUf]ci h] YZ]Yei YbW]ci h] YX]i fU]cbzcf`gca Y
chYf`Ug]W]cZci f`gfj]W]c`W]g]ca Yfg`"H`fY]a UhUg]`V]h]a Ygk \fY]Ua Yf]W]c`
VbWa Uf_`]g]bc`cb]Yf`fY]y Ubh]`cf`UbYk`a Yf]W]c`V]bWa Uf_`a UhVY]U]dfcdf]U]Y`"
H`U]g]U]Zk YUfY`U]d]n]c`Yl d`U]b`h`Yg]Y]a dUg]U]g]ci f`[f]Xa cXfb]n]h]cb`d`U]g]Yi
i bX]fk Uhcb`Ub`cb]c]b]`"U]g]U]g]d]f]c]Zci f`U]bi U`g]fj]Wei U]m]f]Ydcf]h`"5`h]ci [\`
k`Y]l dYf]h`YU]m] U`W]g]ca Yf`fY]U]`]m]c`]a d]f]c] Yzh`Yb]U]i fYcZa Yf]W]ga Uh]m]g]Y
]h]c`V]Y]b]U]dfcdf]U]Y]c`]ga d`m]Wa d]fY]Z`h`fY]fY]g`]g]c` \]g]c]f]W]fY]g`]g]k]h]ci h`
i bX]f]g]U]X]b]`h`YX]U]g]cZ]h`Ya Yf]W]g`"

5gk Y\U] Ybch]X]Z]ga YcZ]h`Y]b]h]U]`]a dUg]k Y]l dYf]k]`"VY]b`h`YU]f]U]cZ
fY]U]`]m]X]i Y]c`ci f`bY]U]h]f]a`[f]Xa cXfb]n]h]cb`]bj Yga Ybh]d`U]g]h`U]b]W]X]Y`
5X]j Ub]W]X]A Y]f]b]`"bZ]U]h]i W]i fY]f]5A`=Z]U:]YX]5fY]U]B`Y]k`cf_`f]l 5B]Z]U]b]X: U`h`i
@`W]h]cb`=g`U]h]cb`Ub]X]G]f]j]W]f]Y]g]c]f]U]h]cb`f]l @`G]E`" `b`h]f]a`g]cZ]g]d]W]Z]W]a`Yf]W]
]a dUg]k YVY]y Yh`U]b]Yk`h`W]bc`c`[Yg]Z]b]W]X]b]`5A`=Z]k]`"U]ck`Z]c]f]a`cfY]d]f]W]g]Y`
h]f]U]b]`Ub]X]f]Ydcf]h]b]`cZ]h`Y]l]g]b]`fY]U]`]m]ra`Yf]W]g]k]`" \]U] Yh`Y]W]d]U]`]m]c`
d]f]c]]X]Y]U]X]h]cb]U]`]b]Z]c]f]a`U]h]cb`Z]c]f]c]d]f]U]h]cb]U]f]Y]g]c]b]g]Y]d]i`f]d]c]g]Y]g]U]b]X]Z]a`Uh]U]h]f`h`Y`
d]f]W]j`Y]X]f]Y]U]`]m]d]f]Z]c]f]a`Ub]W]`"

=h]g]X]Z]W]h]c`X]h]f]a`]b]Y]h`Y]l`h]b]h]h`U]h]a`cfY]d]f]W]g]Y]f]Ydcf]h]b]`k]`"W]U]Y]b]h]f]a`g`
cZ]a`d]f]c] Y]X]f]Y]U]`]m]c]f`d]f]W]j`Y]X]f]Y]U]`]m]c`"W]g]ca`Yfg`": cf`Yl Ua d`Y]Z]b]f]Y]U]g`
k \fY]5A`=\]U]g]V]Y]b]`]a`d`Ya`Yb]h]X]Z]h`Y]7ca`d]U]bn]k]`"VY]b]ch]Z]Y]X]a`cfYei]W]n]c]Z]U]b`
ci`h]U]Y`"5]h]h]a`Yg]Z]h`U]h]a`Uh]U]ck`h`Y]7ca`d]U]bn]c`a`cfYei]W]n]f]Y]g]c]b]X]`"<`ck`Y]Y]Z]b]`
g]c]f]a`g]h]i`U]h]cb]g]Z]h`Y]7ca`d]U]bn]a`Uh]Y]U]b]c]Z]ci`h]U]Y]ga`cfYei]W]n]M]h]k]`"b]ch`
b]W]g]U]f]m]`U]Y]U]a`Y]h]c]X]c`f]Y]g]c]b]X]a`cfYei]W]n]h]l]g]a`U]h]a`U]Y]G]5`-8`=Ub]X]7]5`-8`=
U]d]U]f]c`]b]W]U]g]Z]k` \Y]b]ci`f`U]m]U]d]f]Z]c]f]a`Ub]W] \]g]b]ch]W]U]b]`Y]X]i`cb`n]h`Y]h]f]U]b]`
 \]U]g]c]h]b]a`cfY]d]f]W]g]Y`"

5bch Yf`fY]U]k` \fY]h]W]bc`c[nk]`"ja`d]f]c] YU]W]f]U]m]k]`"VY]b]f]Ydcf]h]b]`A`5`=``"
K]h`5A`=Ub]X]h`Yi`b]X]f]n]b]`]: 5B]Z]h`Y]7ca`d]U]bn]k]`" \]U]Y]a`d]f]c] Y]X]U]`]m]c`_`b]ck`
k \Yb`Ub]X]k` \fY]a`ca`Yb]h]f]n]ci`h]U]Y]g]c]W]f]`"K]h`]a`d]f]c] Y]X]h]f]U]b]`Ub]X]f]Ydcf]h]b]`
.....

· GYLW`9b]f]n]g]`b]h]f]U]X]8`]g]f]M]h]cb`D]U]z]8`c]W]h]B`c`"9]S]S]#]7`=]!`&`%]B`c]j`Ya`V]f`%]Z]S]S]E`"

..

WdUW]hYgzi f_bck YX YcZa ca Ybhfnci HJ Ygk]`]bWUgYi UbXh]gk]` U`ck`
Zcf]bj Ygh] U]cb UbXfygcbgYhc hYYj Yblg" K Yk ci XY dYMHUhi YUgh]b]hU nã
A 5= =k]` UddYf`hc]bWUgYZca` ci f`WffYbhghUzã \ YfYk Y\ Uj Y`ja]hXA 5= =
fydcf]b] UbXWdUW]hYg`"

:]bU`nãk Yf dYMHUici f: @-GF]b]hUj Yk]`]a dfcj Yci f`cj YfU`fY]UW]]hni
dYfZca UbWZvi hk]` Ugc` \ Uj Ygca Ybcb!]bhi]hj Y`ja dUWgcb`gdYMWVá Yf]Wg`"
: @-GF` WbgdgcZ]bhY`]]bhZYXgk]hWYg`hUk cf_` U`hca U]W`nãc` XYHMYXf`
a Uj]bYZU` hã]g` UY`h YZU` hVncdYb]b]` g`Wcb`gk]hWYg`UbXfygcfYdck Yf`hc`
i bZU` hXg`Wcbg`VnWg`gb]` hYgk]hWYg`hc` UKUMbhZYXf`g`Ug`bYWg`g`fm` H`Y
U`hca U]W`Uhi fYcZ: @-GF` a Yubg`hUig`ca Yg`g`UjYXci HJ Ygk]` VYj c]XXi` UbX
h`Y`Yb]h`cZch`Yf`ci HJ Ygk]` VYg`cfh`f`h`Ub`h`Yr`ch`Yf`k]g`Yk ci X` \ Uj YVYb`
k]h`ci h: @-GF`" Gca YcZ`h`Yg`g`cfh`f`ci HJ Ygk]` ZU`]b`hc` h`Ya`ca` Yb`hf`n`M`M` cfrã
`Yg`h`Ub`Zj`Ya`]bi`h`g`z`hi`g`g`]Z]b]` Wg`ca` Yfg`Zca` Yl`dYf]bV]b]` UG5= =Y` Yb`hc` U
A 5= =Y` Yb`h` H`]g`]g`Yl` dYMX`hc` W` g`Y`Ub` UXX]h`cbU` A 5= =]bWUgY`"

K \]Y: @-GF`]g`Yl` dYMX`hc` VYU`Uf] Y`g`WY]b]hUj Yz`k Y` \ Uj YVYb`g`hU`]m]bg`U`]b]`
]bhY`]]bhgk]hWYg`f]bhY`]hUá` Xy]Wg`cf`g`ca` Yh`]b]`]g`a]Uf`cb`g`ca` YZYXf`g`]b`Ub`
YZcf`h`hc`]a` dfcj YWg`ca` Yf`fY]UW]]hncj Yf`h`a` Y` @_ Y: @-GF` zh` Yg`YXj]Wg`f`X`i` W`h`Y`
bi` a` Vf`c`Zci` HJ Yg`k` \]W`]g`dc`g`h`j` YZcf` Wg`ca` Yfg`i` UbXVch` G5=8= UbXG5= =i`
Vi` h`h` Yn`Wb` W` g`Yci` f`75=8= dYfZca` UbW`hc` XW]bYz`k` \]W`k` Y` \ Uj Yg`Yb` UbX
X]g`Wg`g`X]b` dU]g`Yf]]W`ei` U]h`rd`fc`W`X]b]g`"75=8=]g`Ua` YUj` fYcZ`h`Y` Yb]h`c`Z`
h`a` Y`h`YUj` YfU` YWg`ca` Yf` Wb` Yl` dYMH`c` VYk`]h`ci` h`dck` Yf` X`i` f]b]` Ub`]b`h`ffi` d]h`cb`"
=bh`]hj` Ynã`g`ca` Ya`]]h`h`]b_` XW]b]b]` "75=8= fYg`]g`a` Yubg`h`Uih`Yi` h`]h`m]g`Xc]b]` U
k`cf`g`Y`c`V`c`Z`f`Yg`cf]b]` dck` Yf` ^`ck` Yj` Yf`z`]h]g`a` cfY`] Yn`h`U`h`Uk`cf`g`Yb]b]` "75=8=
]g`a` d`nã` Yubg`h`Uih`Yi` h`]h`m]g`Yl` dYf]bV]b]` "Zk` Yf` g`cf`h`X`i` fU]cb`ci` HJ Yg`"

: YXXf` Yj` Y`]b`h`ffi` d]h`cbg` \ Uj` YUk` Uhg`fYdfYg`bh`Xci` f`g`cf`h`g`ici` HJ Yg`Vn`U
g]]b]Z]Wb`ha` Uf]]b`" H` Yn`Ugc` UZZM`h`ci` g`Ub`Xg`c`Z`Wg`ca` Yfg`z`g` h` Yn` \ Uj` YUa` Uf]]U`
YZZM`cb`ci` f`a` Yf]Wg`"75=8= dYfZca` UbW`XW]bYg`k` \ Yb`h`Yci` HJ Yg`Uf`Ya` cfY
 \ Uj]m]Wb`Wb`h`U`X`cb`d`fc`V`Yá` g`h`U`h`U`Y`c`b] Yf`hc` Wff`Y`W`" =b`ci` f` Wg`Z`h`Y
]bhY`]]bhgk]hWYg`k` Y` \ Uj YVYb`]bg`U`]b]` `cb` ZYXf`g`i` UbXh`Uk`]`]bWUgY`k`]h`
: @-GF` i` UfYf`X`i` V]b]` h`Ybi` a` Vf`c`Z`g`cf`h`X`i` fU]cb`ci` HJ Yg`Vn]g`c` U]b]` h`YZU` h`UbX
U`hca` U]W`n`à`YU]b]` Udcf]h`cb`c`Z`h`YZYXf`i` bY]U]b]` Ub`ci` HJ YZcf`h`Ya` Ucf]h`nc`Z
Wg`ca` Yfg`cb`h`YZYXf`" H`Yf`Yg`]b]`]g`g`UjYXci` HJ Yh`i` g`UZZM`g`Uga` U`Yf`
bi` a` Vf`c`Z`Wg`ca` Yfg`i` W`U]b]` UbY]Uj` YZZM`cb`75=8= z`Vi` h`Udc`g`h`j` YfY]UW]]h`ni
Yl` dYf]bV]WZcf`h`Yl` fYU]g`h`i` a` Vf`c`Z`Wg`ca` Yfg`"

9j` Yb`k`]h`ci` h`h`Y`]bhY`]]bhgk]hWYg`z`ci` HJ YXi` fU]cbg`Uih`YZYXf`" Yj` Y` UfY] YbYfU`m
g`cf`h`f`h`Ub`Zcf`]b`h`ffi` d]h`cbg`Uih`ck` Yf`" Yj` Yg`cb`h`Yg`g`h`á` ž`g` W`Ug`h`Y`h`d`" Yj` Yz`

VWM gYk YWb`cZhb`fYgcfYgYfj JWlc`Wgca Yfg]a dUMXVmh`YgY`Y`Ybgh`fci [\`U
 gk JHW]b[`dfcVWfY`H`YV][[Y`]bhfifi dhcb`Y`Ybgh`Uh`YWffYbh]bY`][Ybh
 gk JHWYgUbXZ hi fY: @-GF`Xy JWgUfYa]h[Uh]b[`UbXdfY`Ybh]b[`UXdfY]ci gm
 X]i hXh`YZZMg`cZch`Yf`ga U`Yfz`cb[Yf`Xi`fU]cb`ci`hU`Ygcb`h`Ygng]Ya`" `Cz`k`\\]Y
 h`Y]bY`][Ybhgk JHWYgUfYdfY`Ybh]b[`a`Ugg`Y`h`b`XX`ci`hU`Ygcb`h`Ygng]Ya`z`k`\\]W`]g`
 [ccXZcf`Wgca`Yfg] `UbXWb`VYgYb`]b`ci`f`dcg]hj`YG5=8`=UbXC5= `=dYfZcfa`UbW
 I`j`]k`]b[`75=8`=]b`]g`U]cb`a`Ug`g`k`\\Uh]g`UM`U`m`Udcg]hj`YfYbX]b`ci`f`
 dYfZcfa`UbW`cj`YU`"....

Ci f`WffYbh: @-GF`d`Ub]b]c`j`Y]b]h]U`m]a`d`Ya`Ybh]b[]hcb`ZYXfgh`Uh`\\U`Y`h`Y`
 dccfYg]a`U]b]b]Y`dYfZcfa`UbWz`k`\\]W`k`][`a`U`]a`]nY`h`YfY]U]]m]b]X`g]f]]W[`U]bg`
 Zcf`Wgca`Yfg`K`Ydfcj`]XY`Ub`Y`U`a`d`YcZ`h`YgYZZMg`i`g]b[`ci`f`&\$%`dYfZcfa`UbW`
 m]U`f]h`Y]U`M]g]a`Y`ci`hU`Yg`U]b]X`U]g]a`]b[: @-GF`]gZ``m]b]g]U`Y`X`cb`U]d]d]cl`]a`U]Y`m`
 `S`dYfW]b]hcZci`f`k`cfgh`dYfZcfa`]b[`ZYXfgh`f]U]g]X`cb`C5=8`=L]g]h`Ym]WffYbh]m]Y`]g]`
 K`]h`h`YgY`U]g]a`d]h]cb]g]z`Y]Y]g]a`U]Y`h`U]ci`f`&\$%`A`]bb]Yg]c]h]U]bb]i`U`g]f]]W`ei`U]]m`
 fYd]cf]h]a`Yf]]W]k`ci`X`W]b[]U]g]Z``ck`g`%:

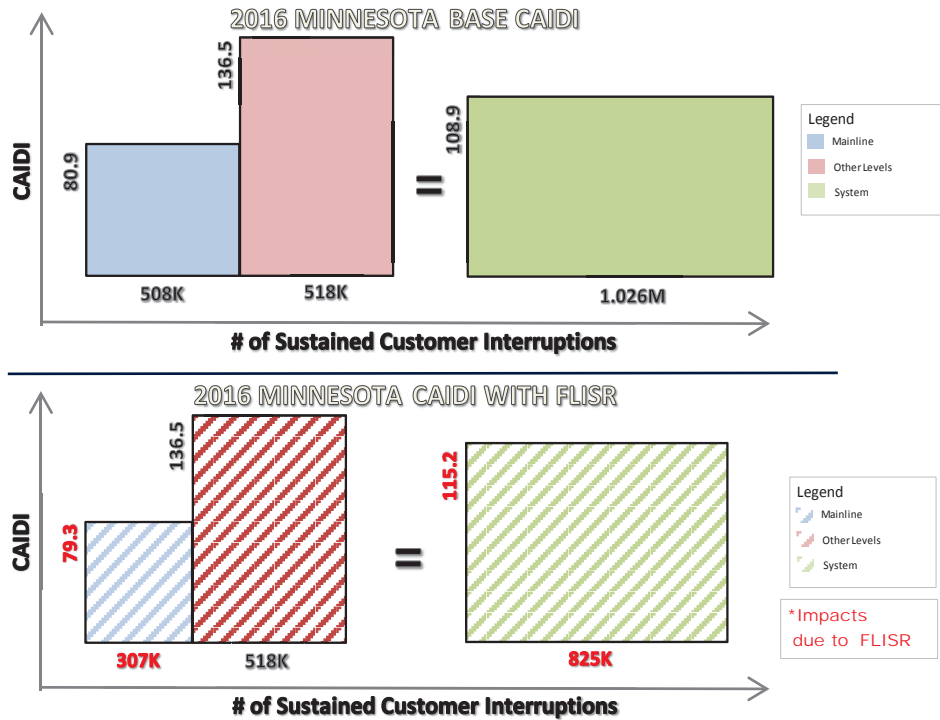
- C5= =k ci `Ximprove`Zca`\$`, &lc`\$`**`
- C5=8=k ci `Ximprove`Zca` `;` -`lc`+`*`..`
- 75=8=k ci `Xdecline`Zca``%\$`-`lc`%\$`..`

K`Yd]cf]h]U]h]Y75=8`=]a`d]U]g]]g]U`m]b]:]i`fY`%W]ck.`

.....

%: cf`di`fdcg]g`cZ`h`]g]i`g]f]U]cb]z`k`Y`U]g]a`Y`h`U]h`k`c]h`]f]X`g]f]#`E`cZ`h`Y`W`g`c`a`Y`g`c`b`U`a`U]b]b]Y`Y`Y`b]i`
 k`ci`X`Y`d]f]]W]b]c]b]n]U`a`c]a`Y`b]h]f]m]ci`hU`Y`]b]g]h]U]X`c]Z]U`g]U]b]Y`X`ci`hU`Y`Z`h`Y`f`Y`a`U]b]b]]W`g`c`a`Y`f`g`k`ci`X`
 \\U`Y`h`Y`f`ci`hU`Y`g`c]h]b]Y`X`V`n]`\$`a`]b]i`h]g]z`U]b]X`U`c]h`Y`f`ci`hU`Y`X`i`f]U]cb]g]U]b]X`bi`a`V]f]g]c]Z]W`g`c`a`Y`f`g`Y`a`U]b`
 h`Y`g]a`Y`h`]g]k`ci`X`c`k`Y`f`ci`f`7`i`g]c]a`Y`f`A`]b]i`h]g]C`i`h]f`7`A`C`L`Z`c`a``%`&`a`]`]cb`lc`-) `a`]`]cb`"H`Y`&#` `.
 f]Y`i`W]cb]b]]W`g`c`a`Y`f`g`Y`d]f]]W]b]b] `U]g`g]U]b]Y`X`Y`Y`b]h]g]U]b]U`Y`f]U]Y]Y`d]Y]M]X]a`d]f]c]j`Y`a`Y`b]i`5`M]U`
]a`d]f]c]j`Y`a`Y`b]h]k`][`V]Y]V]g]X`cb]h`Y`bi`a`V]f`c]Z]W`g`c`a`Y`f`g`c]b`Y`U]W`Z]Y]X`f`U]b]X`h`Y`U]]h]m]c`]b]g]U`g]k`]H]W]Y]g]U]i`
 cd]h]a`i`a`c`W]h]cb]g`"H`Y`%\$`a`]b]i`h]Y`]a`d]f]c]j`Y`a`Y`b]h]g]U]b]Y`g]a`U]Y`c]Z`h`Y]Y`d]Y]M]X]a`d]f]c]j`Y`X`f]Y`g]c]b]g]Y`h]a`Y`X`i`Y`
 lc`h`Y`]a`d]f]c]j`Y`X`c`W]h]cb`]X]b]h]Z]W]h]cb`c`Z`h`Y`Z]i`h`i`-`b`U]X]h]cb]z`k`Y]Y`d]Y]M]c`g]Y`U]g]a`U`X`i`f]U]cb`
]a`d]f]c]j`Y`a`Y`b]h]c`b`c]b]a`U]b]b]Y`ci`hU`Y`g]X`i`Y`c`h`Y`Z]g]Y`f]Y`g]c]b]g]Y`c`a`U]b]b]Y`ci`hU`Y`Z]V`i`h]U]h`]g]h]a`Y`]h]g`
 X]Z]W]h]c`d]f]Y]M]h]U]h]a`d]f]c]j`Y`a`Y`b]h]V]W]g]Y`c]Z`h`Y`U]g]a`d]h]cb]g]U]b]X`W]W]U]h]cb]g]f]Y`e]i`]f]Y`

: || i fY%="i gfUj Y: @-GF '8 Yd`cra Ybh=a dUMcb '75=8=
 fl gbl '88%'5WU'Ci HJ Y9j Ybgl:



H\Yhd\UZcZ: || i fY%dcflfUng'UMi U'88%'75=8=fYg'lg' H\Y`ck Yf\UZdcflfUng' Ygha UHX75=8=fY]U]]m]a dUMg'Zca`h YUvcj YXYg]VYX: @-GF`ja d`Ya YbHUjcb` 5g]bX]W]X]b`fYX]m]hZA Uj]b]Y#: YXYf`75=8=*improves* hc`+`" Ì UbXfYg`lg]b U40 percent reduction]b`h`Ybi a Vf`cZ]a dUMXWgca Yfgfl \$+SS\$ fUH Yf`h`Ub`h`Y) \$, SS\$: UM U]m]a dUMX]b`88%'L` H\YI`ch`YI`ci HJ`Y`Y`Ygzk\]W]bW`Xg`Hdg` hfUbgZca YfgUbXg]f]Wg]fYa Ujbg]h`Yg]a`YU) %SS\$Wgca Yg]a dUMXUbXU 75=8=cZ%*" " H\Yg]h`a UHX]h`U`75=8=Zcf`U`Y`Yg`*increases* hc`%8) "&Zca`%\$`"- Ì`k\]W]b]lg`U]cbz`Wi`XVYg]Yb`Ug`UXW]b]Y]b`dYfZca`UbW`<`ck`Y`Yfz`Ug`g`ck`b`]b`h`YVchca` : @-GF`gW]b]f]c]ci`f`Wgca`Yfg`fY]U]]m]dY]bW]g]UMi U`*improved* Ug]Y]X]bW]XVm`

- H\Y75=8=]a`dfcj`Ya`YbhZcf`Wgca`Yfg`Uih`YA`Uj]b]Y#: YXYf`Y`Y`
- Cj`Yf`88\$SS\$Zk`Yf`Wgca`Yfg]l`dY]bW]b]`Ug`g]Uj]b]Xci`HJ`Y`UbX`
- Bc`Wub]`Y]b`75=8=dYfZca`UbW`Uih`YI`ch`YI`Y`Y`g`"

5gk`Y\U`Ybch`Xzk`YVY]Y`YUbr]g]f]]W]ei`U]]m]a`dUMg`fYVg]h`Y`Ui`UHX]b`h`Y` Wb]m]hcZg]W]W]f]Xa`cX]f]b]n]U]cb]]bj`Yga`Ybgl`<`ck`Y`Yfz]]hk`]`VY]a`dcf]Ub]hc` Wfm]h`cg]Y`ci`h`Wa`Ygcj`Yf`]b]c`h`Yg]Y`Ubbi`U`g]f]]W]ei`U]]m]dfc`W]X]b]g`K`YUfY`

\Uddmte Wbhbhbi Yhc dfcj [XYh]g'hdYcZ]bZcfa U]cb]b'h YgYubbi U'gyfj]Wei U]hm
Z]b]g'U'ci f' [f]Xa cXfb]nU]cb YZcflg[Yni bXfk Um

DFCDC08 9@97HF=7 F9@=56=@HMGH5B85F8G: CF 88%

K YWWUHxh Yg'ubXfXg'h Uik YdfcdcgyZcf 88% i g]b['h Ygl'a Ya YhcXc`c[m
Uddfcj YXZcf'ci f'88% 'fY]U]]mg'ubXfXg''

C b'dU Yg* 'ubX+ cZh]g'Z]]b[žk Ydfcj [XYXU] g'fY] UfX]b['h YUddfcj YXa YhcXcZ
WWU]cb ubXg'cfa !bcfa U]nU]cb' dfcWgg' i g'XZcf'ci f'88% 'fY]U]]mg'ubXfXg''
=b'h]g'GM]cbžk Ydfcj [XYUf]YXZ]gWgg'cb'cZfY]U]]m]bX]Wg'ubXci f'a YhcXcZ
WWU]cbžubXk Yg'hZcfh' 'ci f' dfcdcgyXfY]U]]mg'ubXfXg'Zcf 88% "

A]bb" F"+, &"\$* SSžg Vd""%fYei]fYg'YUW'i h]]mte' dfcdcgy'g'ubXfXg'Zcf'h Y
Zc`ck]b['fY]U]]m]bX]Wg'

- Gng'Ya '5j YfU Y=bhffi dh]cb'8 i fU]cb'=bXI ž
- Gng'Ya '5j YfU Y=bhffi dh]cb': fYei YbWn=bXI žubX
- 7i g'ca Yf'5j YfU Y=bhffi dh]cb'8 i fU]cb'=bXI "

G5=8=a YUg fYgh YUj YfU YhcU'bi a Vf'cZa]bi hYg'UWg'ca Yf'k Ugk]h'ci hidck Yf'
Xi f]b['UWYbXf'nUf'' H]g]bXI]g'WWUHxUg'Zc`ck g'

$$G5=8 = \dots\dots\dots 1 \cdot \frac{HcU'7i g'ca Yf'A]bi hYg'cZG g'U]bYXci hU Yg'}{Bi a Vf'cZ7i g'ca Yfg'}$$

G5= =a YUg fYgh YUj YfU YZfYei YbWncZg g'U]bYXg'fj]W]bhffi dh]cbg'df' Wg'ca Yf'
Xi f]b['UWYbXf'nUf'ubX]g'WWUHxUg'Zc`ck g'

$$G5= = \dots\dots\dots 1 \cdot \frac{HcU'Bi a Vf'cZG g'U]bYX'7i g'ca Yf'=bhffi dh]cbg'}{Bi a Vf'cZ7i g'ca Yfg'}$$

75=8=a YUg fYgh YUj YfU Yci hU Yh'a YUWg'ca Yf'Wi `XY dWmte' Vy'k]h'ci h
dck Yf']Zh Ym] dY]YbWXUg' g'U]bYXci hU YubX]g'WWUHxUg'Zc`ck g'

$$75=8 = \dots\dots\dots 1 \cdot \frac{HcU'7i g'ca Yf'A]bi hYg'cZG g'U]bYXci hU Yg'}{HcU'bi a Vf'cZG g'U]bYX'7i g'ca Yf'=bhffi dh]cbg'}$$

Ci f'YWM]WY]U]]mg'ubXfXg'Zcf 88% 'k YfYUg'Xcb'h YUj YfU YcZci f'Zj YnUf'
fY]U]]m]dYfZcfa UbWf88% !88%+L'' 7cbg]g'Ybhk]h' h'Uia YhcXc`c[nžk Ydfcj [XYUg'

..

5HUWa Ybh@hc`h`lg5bbi UFYdcfłzci f` \ |gcf]W`fY]U]]hndYzfa UbWZcf`h`Y &S%!&S% `dY]cXhc`g` ddcfci f`dfcdcgYX&S% `gUbxXg` H`YgYWW`U]cbgi`gY g`cfa`!bcfa U]nXXU]Zcf`U`Y`Y`g`c`Zci`hU`Yg`f`e` h`U`b`g`a` |gg|cbz`g` VgU]cbz`U`X` X]gf]M`h`cbL`U`X`U`W`g`c`a` Y`W`i`b`h`U`g`Y`c`b`h`Y`b`i`a` V`f`c`Z`W`g`c`a` Y`g`M`]`|`b`|` U`W`i`b`g`U`b`X`a` Y`h`f`g`...`

A]bb"F"7\U]hM`+, &*`U`ck`gi`h`|]h`Y`g`h`c`f`Y`d`c`f`h`f`Y`]U`]]hndYzfa UbW`i`g`b`|` I`g`c`f`a`! bcfa U]nYX` XU]`G`c`f`a`!bcfa U]nYXXU]]g`XY]bYXVm`A]bb"F"`, &*"S&S`S`z`g`Vd`"-` U`g`I`XU]h`U`h`U`g`V`Y`b`U`X`i`g`h`X`h`c`b`Y`i`h`U`]n`Y`h`Y`Z`Z`W`g`c`Zci`hU`Y`g`X`i`Y`h`c`a`U`c`f` g`c`f`a`g`I`5`g`b`c`h`X`U`c`j`Y`z`k`Y`d`f`c`d`c`g`Y`g`U`b`X`f`X`g`Z`c`f`&S%`h`U`h`f`Y`W`b`g`g`h`b`h`k`|`h`h`c`g`Y`U`d`d`f`c`j`Y`X`Z`c`f`&S%`"=-b`U`X`|]h`c`b`z`h`Y`X`U`d`f`c`j`|X`X`|b`5`HUWa`Ybh`@\`U`g`V`Y`b`f`Y`g`U`h`X`i`g`b`|`h`Y`-999`a`Y`h`c`X`Z`c`f`bcfa U]nU]cb`"

A]bb"F"`, &*"S&S`S`z`g`Vd`"%`X`Z`|`b`Y`g`k`c`f`_`W`b`h`f`U`g`U`d`c`f`h`c`b`c`Z`U`i`h`|]h`m`g`U`g`|`b`Y`X`g`f`j`|W`U`f`Y`U`h`U`h`|h`f`Y`U`g`U`g`U`b`U`X`a`|b`|g`f`U`h`j`Y`g`V`X`j`|g`c`b`Z`c`f`d`i`f`d`c`g`Y`g`c`Z`a`U`b`U`b`|`b`|` U`b`X`f`Y`d`U`f`|`b`|`|g`X`|g`f`M`h`c`b`g`g`h`a`"L`W`9`b`Y`f`m`X`Z`|`b`Y`g`|g`k`c`f`_`W`b`h`f`g`i`b`X`f`h`Y`f`i`Y`U`g`c`i`f`f`Y`|c`b`U`g`f`j`|W`U`f`Y`U`g`H`Y`g`Y`f`Y`|c`b`g`U`f`Y`"

- A`Y`f`c`9`U`h`i`
- A`Y`f`c`K`Y`g`h`i`
- B`c`f`h`k`Y`g`h`i`
- C`c`i`h`Y`U`h`i`

7i`g`c`a`Y`f`c`i`hU`Y`g`c`b`c`i`f`g`g`h`a`U`f`Y`W`M`|c`f`|n`Y`X`V`m`f`Y`|c`b`z`U`b`X`U`c`Z`c`i`f`X`Y`j`Y`f`m`g`g`h`a`k`c`f`_`a`U`b`U`Y`a`Y`b`h`|g`h`Y`X`h`c`h`Y`g`Y`f`Y`|c`b`U`X`j`|g`c`b`g`"

5" DfcdcgYXFY]U]]hndUbxXgZcf`&S%`

5`g`f`Y`e`i`|f`Y`X`V`m`A`]bb"F"`, &*"S`*`S`S`z`g`Vd`"%`z`k`Y`d`f`c`d`c`g`Y`h`Y`Z`c`ck`|b`|`&S%`g`U`b`X`f`X`g`Z`c`f`G5`= `z`G5`-8`z`U`b`X`75`-8`="`"

C`i`f`d`f`c`d`c`g`Y`X`g`U`b`X`f`X`g`Z`c`f`G5`-8`=U`b`X`G5`= `=U`f`Y`h`Y`U`j`Y`f`U`Y`c`Z`h`Y`Z`j`Y`m`U`f`g`c`Z` \ |gcf]W`XU]f`d`f`c`j`|X`X`|b`5`HUWa`Ybh`@`"H`Y`75`-8`=g`U`b`X`f`X`g`U`f`Y`W`W`U`h`X`Z`c`a`h`Y`d`f`c`d`c`g`Y`X`G5`-8`=U`b`X`G5`= `=g`U`b`X`f`X`g`i`g`b`|`h`Y`a`U`h`Y`a`U`h`W`f`Y`U`h`c`b`g`|`d`V`h`k`Y`b`h`Y`|b`X`|W`g`75`-8`=1`G5`-8`#G5`= `="H`Y`a`Y`h`c`X`c`c`|m`i`g`Y`h`c`W`W`U`h`h`Y`g`Y`g`U`b`X`f`X`g`|g`X`Y`g`M`V`Y`X`|b`X`h`U`U`c`j`Y`z`U`b`X`|g`g`a`a`U`f`|n`Y`X`W`y`c`k`."

- =b`W`X`Y`c`i`hU`Y`g`U`h`U`Y`g`f`M`g`f`M`h`c`b`z`g`V`g`U`h`c`b`z`U`b`X`h`U`b`g`a`|gg|cb`E`"
- =b`W`X`Y`U`W`g`Y`g`"
- =b`W`X`Y`W`X`|h`Z`c`f`d`U`h`U`f`Y`g`c`f`U`h`c`b`"

- =bWXYWgca Yfg`cWnX]b'A]bbYg`hUh UhufYdUfhcZh YB 8 #C8 `kcf_`
Wbhfq"
- 6UgXcb`hYbi a Vf`cZWgca Yfg`M`]b[`UWwi blg`UbXa Yhfq"
- 6UgXcb`gcf a !bcfa U]nXXU"

DfcdcgYX&\$% FY]U]]hmGHbXfXg`

		DfcdcgYXGHbXfX
A Yfc`9Ugi	G5=8=	, - "+, `
	G5= =	\$', *`
	75=8=	%\$ " - (`
A Yfc`K Ygi	G5=8=	, &\$ `
	G5= =	\$', &
	75=8=	%\$S" +`
B cfhk Ygi	G5=8=	,) ", *`
	G5= =	\$"+*`
	75=8=	%% "S%
Gci`h Ygi	G5=8=	- (", &
	G5= =	\$"+*`
	75=8=	%%&S(`

I GbXfXgWWUHxk]h`XU]i g]b[=999`a YhcXZf`bcfa U]n]cb`UbXbchWa dUfUYlc`gUgXfXggh]b`dfj]ci`g`
5bbi U`FYdcfg`" H`YgUgXfXgZcf`h`Y`Gci`h`Y`g]f]]cb`U`Y`W`b`g`d`h`k]h`h`Y`&\$%`g`UgXfXgUddfcj`YX]b`8`c`W`h`i`B`c`"
9SS&#A`!%`!&`-`"

J" 9: : 97HC: `7< 5B; 9 I DCB L79@`9B9F; MF9J9BI 9`

5ddfcj`U`c`Zci`f`Ubbi`U`f`Ydcfh`UbX`h`Y`f`Y]U]]hm`f`Z`f`a`U`b`W`g`U`b`X`f`X`g`d`f`c`d`c`g`Y`X]b`
h`g`D`Y`h`c`b`k`]"`b`c`h`f`Y`g`h`]b`U`b`n`W`U`b`[`Y`g`h`c`L`W`9`b`Y`f`[`n`g`f`Y`Y`b`i`Y`"

7CB7@a G=CB`

L`W`9`b`Y`f`[`m`g`W`a`a`]h`X`h`c`d`f`c`j`]X]b[`ci`f`W`g`ca`Y`f`g`k`]h`ei`U`]h`z`f`Y]U`Y`g`f`j`]W`"
K`Y`U`d`d`f`Y`W`h`h`]g`c`d`d`c`f`h`b`]h`m`h`c`f`y`d`c`f`h`c`i`f`d`y`Z`f`a`U`b`W`h`c`h`Y`7`ca`a`]g`g`c`b`z`U`b`X`
f`y`g`d`W`Z` `m`f`Y`e`i`Y`g`h`U`h`h`Y`7`ca`a`]g`g`c`b`U`W`d`h`c`i`f`U`b`b`i`U`f`y`d`c`f`h`c`b`g`U`Z`h`z`
f`Y]U]]h`z`U`b`X`g`f`j`]W`e`i`U`]h`m`K`Y`U`g`c`f`Y`e`i`Y`g`h`U`h`h`Y`7`ca`a`]g`g`c`b`U`d`d`f`c`j`Y`c`i`f`
d`f`c`d`c`g`Y`X`f`Y]U]]h`m`h`U`b`X`f`X`g`Z`c`f`&\$%`U`g`X`h`U`Y`X]b`h`g`D`Y`h`c`b`"

8 UHX`5df]`%&\$%`

B`c`f`h`Y`f`b`G`U`Y`g`D`c`k`Y`f`7`ca`d`U`b`n`

G5H9C: A=BB9GCH5`
69: CF9Hk9`
A=BB9GCH5`Di 6@7I H@H9G7CAA=GGCB`

8Ub@]dgWi`m`
AUhYk`GWi Yf[Yf`
? UfY>"GfYb`
x\bHi a U

J]M:7\Uf`
7ca a]gg]cbYf`
7ca a]gg]cbYf`
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=B Hk9`A5HH9F`C: BCFHk9FB`G5H9G
DCK9F`7CAD5BM`5BBI 5@F9DCFHCB
G5: 9HMZF9@-56=@HMZ5B8`G9FJ=79
EI 5@HM: CF`&\$%/5B8`D9HHCB: CF
5DDFCJ5@C: 9@97HF=7`F9@-56=@HM
G5B85F8G: CF`&\$%`

8C7?9HBC`"9\$\$&#A`!%`!SSS`

5BBI 5@F9DCFH5B8`
D9HHCB`

G AA5FMC: :=@B;`

DYUgYH_UYbch]WWhUicb`5df]`%z&\$%zBcfhYfb`GUYgDck Yf`7ca dUbnzXc]b[`
Vi g]bYggUg]LW`9byf[rnz]YXk]h`h`YA]bbYgchUDi V]W`h]h]Yg7ca a]gg]cb`]hg`
5bbi U`F`Ydcf]cb`g]Z]mzfY]U]`]mz]UbXg]fj]W]ei U]m]Ug]fYei]fYXi bXf`A]bb"F"
+, &*\$(\$S\$z+, &*\$) \$S\$zUbX+, &*\$% \$S\$`H]gZ]b[`Ugc]bWXYgUDY]hcb`Zcf`Uddfcj U`
cZhY7ca dUbnz]dfcdcg]XYWf]WY]U]`]mg]UbXfXg`Zcf`&\$%`Ug]fYei]fYXi bXf`
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5BBI 5@F9DCFHCB G5: 9HMZF9@-56=@HMZ5B8 G9FJ=79 EI 5@HM
: CF 88% 5B8 D9HHCB: CF 5DDFCJ5@C: .
9@97HF=7 F9@-56=@HMGH5B85F8G: CF 88% .

5HUWa YbhiHUVYcZ7cbhYblg

- 5" Gi fj YmcZC WdUjcbU=b1 f]Yg/ `=bYggYg
- 6" DfcdYfm8 la UjY7 Ua g
- 7" HfUga jggcbCi hUj Yg
- 8" : YXfCi hUj YB chZWMjcbg
- 9" : YXfDYZcfa UbW
- : " A Ymf FYUjbl DYZcfa UbW
- ; " =bj c i bhfm8 jgWbbWjcbgUbX9a Yf YbWwA YXjW 5Ww bhGUh g
- < " Gyf jW9l hbgcb FYei YghFYgdcbgYHja Yg
- = " 7U 7Ybhf FYgdcbgYHja Yg
- > " 7i gca Yf 7ca dUjblg
- ? " *Discontinued – Smart Grid Annual Report* .
- @ " < jgcfjW FYjUj]hmDYZcfa UbW
- A " 8 jgfM hcbGngYa DYZcfa UbW
- A % A jbbYgchU79A =A Ud
- A & Hk j b 7 jhYgA Yfc 79A =A Ud
- B " A 5= =FYg hg
- B % 5XXjcbU A 5= =XUj
- C " A Ymf 9ei jda Ybha Uz bWjcbgHlfjZZ5bbi U FYdcfhi
- D " 79A =UbX79@=
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- F " 7i gca Yf GUhgZWMjcb
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					DchMMX8UU6Y]bg	
EV2014123960	7/15/2014	7/21/2014	1106	Conductors - Overhead	*	\$0.00
					DchMMX8UU9bXg	
EV2014125959	11/3/2014	4/27/2018	1129	Transformer Under Ground	\$1,952.28	\$0.00
EV2015126929	11/3/2015	11/5/2015	1122	Poles & Towers	\$6,000.00	\$0.00
EV2016131195	5/1/2016	11/8/2017	1129	Transformer Under Ground	\$1,455.00	\$0.00
EV2016131589	11/30/2016	1/25/2018	1122	Poles & Towers	\$7,550.00	\$0.00
EV2016131589	11/30/2016	1/25/2018	1122	Poles & Towers	\$1,508.00	\$0.00
EV2017131011	4/25/2017	10/9/2017	1122	Poles & Towers	\$150.00	\$0.00
EV2017130864	6/12/2017	9/14/2017	1131	Vegetation	\$11,000.00	\$0.00
EV2017130865	6/30/2017	9/14/2017	1128	Transformer Overhead	\$1,925.00	\$0.00
EV2017131072	6/30/2017	10/19/2017	1128	Transformer Overhead	\$2,726.09	\$0.00
EV2017131356	7/18/2017	12/18/2017	1131	Vegetation	\$112.13	\$0.00
EV2017130563	7/21/2017	8/28/2017	1106	Conductors - Overhead	\$3,561.81	\$0.00
EV2017132411	8/22/2017	7/10/2018	1134	Work Performed Electrical	\$6,159.48	\$0.00
EV2017131076	8/29/2017	10/18/2017	1136	Outage	\$90.00	\$0.00
EV2017131602	9/7/2017	1/31/2018	1134	Work Performed Electrical	\$3,255.34	\$0.00
EV2017131225	9/9/2017	11/15/2017	1131	Vegetation	\$1,931.69	\$0.00
EV2017131283	9/13/2017	11/29/2017	1128	Transformer Overhead	\$150.00	\$0.00
EV2017131008	9/24/2017	10/9/2017	1128	Transformer Overhead	\$7,406.29	\$0.00
EV2017131991	10/9/2017	5/3/2018	1101	Abnormal Voltage	\$247.05	\$0.00
EV2017131201	10/16/2017	11/9/2017	1130	Tree Trimming	\$1,510.00	\$0.00
EV2017131475	11/16/2017	1/16/2018	1110	Equipment Failure	\$150.00	\$0.00
EV2017131302	11/19/2017	12/4/2017	1136	Outage	\$199.25	\$0.00
EV2017131302	11/19/2017	12/6/2017	1136	Outage	\$462.40	\$0.00
EV2017131302	11/19/2017	2/1/2018	1136	Outage	\$277.70	\$0.00
EV2017131302	11/19/2017	2/16/2018	1136	Outage	\$150.00	\$0.00
EV2017131322	11/20/2017	12/12/2017	1130	Tree Trimming	\$2,554.66	\$0.00
EV2017131322	11/20/2017	12/12/2017	1130	Tree Trimming	\$432.12	\$0.00
EV2017131424	11/21/2017	1/3/2018	1122	Poles & Towers	\$3,302.70	\$0.00
EV2017131430	11/23/2017	1/4/2018	1110	Equipment Failure	\$3,147.85	\$0.00
EV2017131594	11/25/2017	1/26/2018	1129	Transformer Under Ground	\$409.18	\$0.00
EV2017131611	12/17/2017	2/2/2018	1110	Equipment Failure	\$287.50	\$0.00
EV2017131643	12/18/2017	2/12/2018	1131	Vegetation	\$800.00	\$0.00
EV2018131596	1/7/2018	1/30/2018	1110	Equipment Failure	\$239.99	\$0.00
EV2018131603	1/8/2018	1/31/2018	1134	Work Performed Electrical	\$440.00	\$0.00
EV2018131967	1/17/2018	4/26/2018	1121	Other not listed	\$533.18	\$0.00
EV2018131640	1/18/2018	2/12/2018	1110	Equipment Failure	\$877.75	\$0.00
EV2018131780	1/29/2018	3/12/2018	1136	Outage	\$250.00	\$0.00
EV2018131685	2/7/2018	2/16/2018	1101	Abnormal Voltage	\$899.00	\$0.00
EV2018131742	2/14/2018	3/5/2018	1101	Abnormal Voltage	\$1,345.30	\$0.00
EV2018131742	2/14/2018	3/5/2018	1101	Abnormal Voltage	\$2,106.84	\$0.00
EV2018131898	3/1/2018	4/10/2018	1134	Work Performed Electrical	\$19,478.00	\$0.00
EV2018131878	3/3/2018	4/6/2018	1136	Outage	\$1,378.67	\$0.00

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A]bb"Fi `Yg+, &*"S(\$\$Dufh6 ! 7`Ua gFYdcf!

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EV2018132520	3/10/2018	7/24/2018	1134	Work Performed Electrical	\$131.22	\$0.00
EV2018131820	3/13/2018	3/19/2018	1136	Outage	\$246.00	\$0.00
EV2018131816	3/19/2018	5/24/2018	1134	Work Performed Electrical	\$8,104.05	\$0.00
EV2018132383	3/19/2018	7/6/2018	1134	Work Performed Electrical	\$939.00	\$0.00
EV2018132179	4/6/2018	6/5/2018	1136	Outage	\$855.04	\$0.00
EV2018132099	4/7/2018	7/6/2018	1136	Outage	\$1,845.41	\$0.00
EV2018132014	4/18/2018	5/10/2018	1136	Outage	\$19.99	\$0.00
EV2018132034	4/18/2018	5/14/2018	1136	Outage	\$270.06	\$0.00
EV2018132209	4/24/2018	6/12/2018	1134	Work Performed Electrical	\$1,200.00	\$0.00
EV2018132257	4/25/2018	6/14/2018	1134	Work Performed Electrical	\$3,550.00	\$0.00
EV2018132104	5/3/2018	5/22/2018	1136	Outage	\$150.00	\$0.00
EV2018132129	5/7/2018	5/24/2018	1136	Outage	\$120.00	\$0.00
EV2018132182	5/17/2018	6/6/2018	1101	Abnormal Voltage	\$385.25	\$0.00
EV2018132182	5/17/2018	6/14/2018	1101	Abnormal Voltage	\$2,360.85	\$0.00
EV2018132414	5/21/2018	7/12/2018	1136	Outage	\$6,695.95	\$0.00
EV2018132219	5/24/2018	6/13/2018	1136	Outage	\$450.00	\$0.00
EV2018132333	5/24/2018	6/27/2018	1136	Outage	\$388.00	\$0.00
EV2018132437	5/27/2018	7/18/2018	1136	Outage	\$200.00	\$0.00
EV2018132393	5/29/2018	7/9/2018	1134	Work Performed Electrical	\$1,500.00	\$0.00
EV2018132569	5/29/2018	8/7/2018	1134	Work Performed Electrical	\$4,425.99	\$0.00
EV2018132353	5/31/2018	6/27/2018	1134	Work Performed Electrical	\$2,800.00	\$0.00
EV2018132900	5/31/2018	10/1/2018	1134	Work Performed Electrical	\$3,322.54	\$0.00
EV2018132492	6/5/2018	7/20/2018	1128	Transformer Overhead	\$132.93	\$0.00
EV2018132386	6/13/2018	7/6/2018	1136	Outage	\$78.88	\$0.00
EV2018132421	6/18/2018	7/13/2018	1134	Work Performed Electrical	\$1,023.10	\$0.00
EV2018132462	7/1/2018	7/19/2018	1136	Outage	\$89.00	\$0.00
EV2018132839	7/1/2018	9/17/2018	1101	Abnormal Voltage	\$831.56	\$0.00
EV2018132535	7/12/2018	7/31/2018	1130	Tree Trimming	\$401.38	\$0.00
EV2018132788	8/3/2018	9/24/2018	1101	Abnormal Voltage	\$663.00	\$0.00
EV2018132718	8/19/2018	8/31/2018	1101	Abnormal Voltage	\$674.50	\$0.00
EV2018132876	8/31/2018	9/24/2018	1136	Outage	\$296.95	\$0.00
EV2018132879	9/3/2018	9/26/2018	1136	Outage	\$350.00	\$0.00
EV2018132896	9/4/2018	10/1/2018	1130	Tree Trimming	\$1,750.00	\$0.00
EV2018132804	9/5/2018	9/10/2018	1134	Work Performed Electrical	\$35.37	\$0.00
EV2018132804	9/5/2018	9/10/2018	1134	Work Performed Electrical	\$45.00	\$0.00
EV2018132983	9/20/2018	10/18/2018	1134	Work Performed Electrical	\$1,732.31	\$0.00
EV2018132965	9/20/2018	10/19/2018	1106	Conductors - Overhead	\$1,182.50	\$0.00
EV2018132965	9/20/2018	11/12/2018	1106	Conductors - Overhead	\$96.00	\$0.00

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0DfchWbX8UU6Y lbg							
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%#(#8S%). ' S	%) S	9ei da Ybhi U i fY	Gd'jW: U i fY	F YdUf: gd'jWUbXj U XU'Y WbX Hcb' cZUX'UWb gd'jWg	
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&#& #8S%	&&S-	%	%\$	Di V W8 La U Y	J Y W'XLa U Y e: g'fi W'fY	F Yd'UW'XLa U Ydc Y	
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' #) #8S%	%+.%	%	(*	G'cfa 'j b'UFYU	Dc'hb U'jW'fYU'X'j g'g' Yg	F Yj k' ci H YXU U e' X Hfa bY'fcch'W g'Z'f dc'hb U' d'fc' Y'W'W'W'bg'X'fU jcb	
' #) #8S%	&S' -	%	&	G'cfa 'j b'UFYU	Dc'hb U'jW'fYU'X'j g'g' Yg	F Yj k' ci H YXU U e' X Hfa bY'fcch'W g'Z'f dc'hb U' d'fc' Y'W'W'W'bg'X'fU jcb	
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(#) #8S%	%(+)&	') S	G'cfa 'j b'UFYU	6'j m'fX'7cbX Hcbg	F Yj k' ci H YXU U e' X Hfa bY'fcch'W g'Z'f dc'hb U' d'fc' Y'W'W'W'bg'X'fU jcb	
(#) #8S%	' ,(%&	G'cfa 'j b'UFYU	: U'cd b '7cbX W'f:fg	7cbg'X'f'Z' h'f'Ya H U jcb' d'fc' Y'W'	
(#) S#8S%	+ ' +	%	%	9ei da Ybhi U i fY	Dc Y: fY	F Yd'UW'g'fi W'fY	
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	(# #&S%	(# #&S%	%	&	Gcfa]b'U]fYU	HfY]cb]bY	F'Ya cj Y'HY
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	(# #&S%	(# #&S%	%)	9ei]da Yb]h: U]i fY	7cbX W]f]Gd]W	F'YdU]f'gd]W]U]b]X] U]XU]Y W]b]X]h]cb'cZU]XU]W]b]h]g]l]W]g
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@ bY	6Y]b'8UY	6Y]b' H]a Y	8i fU]cb' < fg	8i fU]cb' A]bg	7U gY	7ca a Yblg	F'Y'a YX]U'5W]cb
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	%&#&#&S%	(' &	%\$	(*	I b_bck b		7]f'W]h'dU'f'c" `YX
	%&#&#&#&#&S%	%+.&	&	('	D]a V]W]8 U]a U]Y	J Y\]W'X]a U]Y]t'c' g]f'i W]f'Y	F'Y'dU'W]G]f'i W]f'Y
Dc'h'W]X]8U]U'9bX]@							

January

2018 MN Feeder Level Outages

Feeder	Primary Event #	Begin Time	Completion Time	Duration Min.	Customers Out	10 Total qualifying events				0 events with no email				
						Region	Email sent to CAO	Email 1	Email 2	Email 3	Email 4			
[PROTECTED DATA BEGINS														
1	1513894	01/04/18 04:37	01/04/18 05:49	72	663	Northwest	X	X	X	X				
2	1513951	01/04/18 05:39	01/04/18 07:01	82	673	Northwest	X	X	X	X				
3	1514457	01/07/18 11:29	01/07/18 13:29	120	772	Northwest	X	X	X	X				
4	1514735	01/08/18 20:38	01/08/18 23:00	142	990	Northwest	X	X	X	X				
5	1515645	01/12/18 18:24	01/12/18 19:27	63	5,198	Metro West	X	X	X	X	X		X	
6	1515995	01/14/18 21:00	01/14/18 22:07	67	1,997	Metro West	X	X	X	X				
7	1517356	01/22/18 14:41	01/22/18 15:49	68	2,073	Metro West	X	X	X	X				
8	1517515	01/22/18 18:31	01/22/18 20:05	94	2,933	Metro East	X	X	X	X	X		X	
9	1518276	01/25/18 13:54	01/25/18 15:45	111	1,844	Northwest	X	X	X	X	X		X	
10	1518271	01/25/18 13:54	01/25/18 16:07	133	849	Northwest	X	X	X	X	X		X	

PROTECTED DATA ENDS]

February

2018 MN Feeder Level Outages

Feeder	Primary Event #	Begin Time	Completion Time	Duration Min.	6 Total qualifying events			0 events with no email									
					Customers Out	Region	Email sent to CAO	Email 1	Email 2	Email 3	Email 4						
[PROTECTED DATA BEGINS																	
1	1521821	02/17/18 09:38	02/17/18 17:29	471	1,857	Metro West	X	X	X	X	X	X	X				
2	1522087	02/18/18 19:43	02/19/18 03:40	477	1,652	Metro West	X	X	X	X	X	X	X				
3	1522699	02/21/18 22:13	02/21/18 23:19	66	1,382	Metro West	X	X	X	X	X	X	X				
4	1522703	02/21/18 22:13	02/21/18 23:19	66	1,183	Metro West	X	X	X	X	X	X	X				
5	1523796	02/25/18 02:40	02/25/18 05:11	151	512	Southeast	X	X	X	X	X	X	X				
6	1524117	02/27/18 09:43	02/27/18 10:47	64	548	Metro West	X	X	X	X	X	X	X				

PROTECTED DATA ENDS]

March

2018 MN Feeder Level Outages

Feeder	Primary Event #	Begin Time	Completion Time	Duration Min.	Customer s Out	Region	25 Total qualifying events					0 events with no email																
							Email sent to CAO	Email 1	Email 2	Email 3	Email 4	Email 5	Email 6	Email 7														
[PROTECTED DATA BEGINS]																												
1	1524976	03/04/18 10:40	03/04/18 11:45	65	2,210	Metro East	X	X	X	X	X	X																
2	1525260	03/04/18 14:14	03/04/18 15:45	91	2,374	Metro East	X	X	X	X	X	X																
3	1529292	03/04/18 09:44	03/04/18 20:43	659	3,077	Metro East	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4	1525181	03/04/18 12:48	03/04/18 21:30	522	854	Metro West	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	1525114	03/04/18 12:11	03/05/18 01:35	804	3,278	Metro East	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6	1525186	03/04/18 12:51	03/05/18 03:40	889	1,832	Metro East	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7	1525737	03/05/18 12:23	03/05/18 13:31	68	1,201	Metro West	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8	1525640	03/05/18 10:34	03/05/18 14:55	261	592	Northwest	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9	1526104	03/05/18 16:19	03/05/18 18:13	114	1,628	Southeast	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10	1526293	03/05/18 17:19	03/05/18 19:05	106	987	Southeast	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11	1526169	03/05/18 17:10	03/05/18 20:15	185	2,330	Metro East	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12	1526404	03/05/18 20:01	03/05/18 21:18	77	1,658	Metro West	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13	1526457	03/05/18 20:39	03/05/18 22:04	85	605	Southeast	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14	1526357	03/05/18 17:12	03/05/18 23:27	375	1,079	Northwest	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15	1526523	03/05/18 23:48	03/06/18 01:34	106	710	Northwest	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16	1528936	03/17/18 14:59	03/17/18 17:22	143	1,182	Metro West	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17	1530744	03/26/18 16:14	03/26/18 18:10	116	1,241	Metro West	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
18	1530742	03/26/18 16:13	03/26/18 19:21	188	4,132	Metro West	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19	1530986	03/26/18 19:23	03/26/18 20:37	74	877	Metro East	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20	1531052	03/26/18 21:39	03/26/18 23:02	83	886	Metro East	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21	1531098	03/27/18 00:15	03/27/18 01:31	76	4,910	Metro East	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22	1531962	03/29/18 11:39	03/29/18 13:30	111	2,113	Southeast	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23	1531972	03/29/18 11:39	03/29/18 13:30	111	4,090	Southeast	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
24	1532356	03/29/18 22:14	03/29/18 23:40	86	2,709	Metro West	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25	1532556	03/31/18 09:25	03/31/18 16:50	445	683	Southeast	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

PROTECTED DATA ENDS]

May

2018 MN Feeder Level Outages

37 Total qualifying events										1 event with no email					
Feeder	Primary Event #	Begin Time	Completion Time	Duration Min.	Customers Out	Region	Email sent to CAO	Email 1	Email 2	Email 3	Email 4	Email 5	Email 6		
[PROTECTED DATA BEGINS]															
1	1541441	05/01/18 23:54	05/02/18 13:06	1,362	1,905	Metro West	X	X	X	X	X	X	X		
2	1541502	05/02/18 02:57	05/02/18 03:59	62	1,101	Metro West	X	X	X	X	X	X	X		
3	1541708	05/02/18 16:28	05/02/18 17:45	77	2,097	Metro East	X	X	X	X	X	X	X		
4	1542585	05/05/18 17:37	05/05/18 19:09	184	697	Metro West	X	X	X	X	X	X	X		
5	1542582	05/05/18 17:37	05/05/18 19:09	92	1,093	Metro West	X	X	X	X	X	X	X		
6	1544022	05/08/18 14:50	05/08/18 17:30	160	3,421	Northwest									
7	1543988	05/08/18 15:14	05/08/18 17:03	218	1,556	Northwest	X	X	X	X	X	X	X		
8	1544508	05/09/18 20:14	05/09/18 23:12	329	6,183	Metro East	X	X	X	X	X	X	X		
9	1545315	05/12/18 09:19	05/12/18 15:50	575	2,044	Metro West	X	X	X	X	X	X	X		
10	1546635	05/16/18 13:37	05/16/18 17:47	719	1,415	Metro West	X	X	X	X	X	X	X		
11	1546767	05/16/18 18:31	05/16/18 20:29	118	676	Metro West	X	X	X	X	X	X	X		
12	1547613	05/18/18 11:52	05/18/18 12:23	61	972	Metro East	X	X	X	X	X	X	X		
13	1547959	05/19/18 17:19	05/19/18 22:03	358	1,411	Metro West	X	X	X	X	X	X	X		
14	1547991	05/19/18 18:04	05/19/18 19:05	61	2,529	Metro West	X	X	X	X	X	X	X		
15	1549354	05/24/18 12:58	05/24/18 14:07	138	1,503	Metro West	X	X	X	X	X	X	X		
16	1549475	05/24/18 16:28	05/24/18 17:30	62	670	Northwest	X	X	X	X	X	X	X		
17	1549555	05/24/18 18:35	05/24/18 20:58	143	1,176	Metro West	X	X	X	X	X	X	X		
18	1549677	05/24/18 19:09	05/24/18 22:20	1,721	1,987	Metro West	X	X	X	X	X	X	X		
19	1549722	05/24/18 19:13	05/24/18 20:45	209	1,259	Northwest	X	X	X	X	X	X	X		
20	1549832	05/24/18 19:40	05/24/18 21:13	226	1,764	Metro East	X	X	X	X	X	X	X		
21	1549946	05/24/18 19:57	05/24/18 20:58	61	4,961	Metro East	X	X	X	X	X	X	X		
22	1550155	05/24/18 20:47	05/25/18 00:18	211	1,483	Metro East	X	X	X	X	X	X	X		
23	1550159	05/24/18 20:47	05/25/18 00:18	211	918	Metro East	X	X	X	X	X	X	X		
24	1550519	05/25/18 02:54	05/25/18 04:29	95	1,795	Metro West	X	X	X	X	X	X	X		
25	1550561	05/25/18 03:36	05/25/18 04:45	138	2,135	Metro East	X	X	X	X	X	X	X		
26	1551865	05/26/18 12:30	05/26/18 15:05	310	1,015	Southeast	X	X	X	X	X	X	X		
27	1552334	05/26/18 22:59	05/27/18 00:24	85	948	Metro West	X	X	X	X	X	X	X		
28	1552931	05/27/18 22:59	05/28/18 00:08	69	607	Metro East	X	X	X	X	X	X	X		
29	1553035	05/28/18 07:12	05/28/18 07:59	94	1,246	Metro West	X	X	X	X	X	X	X		
30	1553112	05/28/18 09:00	05/28/18 10:26	297	2,090	Metro West	X	X	X	X	X	X	X		
31	1553452	05/28/18 16:06	05/28/18 17:09	63	1,253	Metro West	X	X	X	X	X	X	X		
32	1553724	05/28/18 18:29	05/28/18 20:45	959	3,237	Metro East	X	X	X	X	X	X	X		
33	1553799	05/28/18 18:34	05/28/18 20:07	93	1,767	Metro East	X	X	X	X	X	X	X		
34	1554658	05/29/18 16:39	05/29/18 18:38	119	1,203	Metro West	X	X	X	X	X	X	X		
35	1554702	05/29/18 17:16	05/29/18 19:13	117	992	Southeast	X	X	X	X	X	X	X		
36	1555036	05/29/18 21:49	05/30/18 01:22	213	2,989	Metro East	X	X	X	X	X	X	X		
37	1555150	05/29/18 23:02	05/30/18 00:44	102	1,134	Metro West	X	X	X	X	X	X	X		

PROTECTED DATA ENDS]

June

2018 MN Feeder Level Outages

Feeder	Primary Event #	Begin Time	Completion Time	Duration Min.	Customers Out	Region	Email sent to CAO	0 events with no email							
								Email 1	Email 2	Email 3	Email 4	Email 5	Email 6		
[PROTECTED DATA BEGINS]															
1	1566508	06/01/18 18:19	06/01/18 19:15	149	1,989	Metro West	x	x							
2	1557022	06/03/18 09:10	06/03/18 10:42	84	1,015	Southeast	x	x							
3	1557023	06/03/18 09:10	06/03/18 10:42	92	954	Southeast	x	x							
4	1557224	06/03/18 18:52	06/03/18 21:34	162	930	Metro West	x	x	x						
5	1558066	06/05/18 09:34	06/05/18 10:48	74	2,776	Metro East	x	x							
6	1558314	06/05/18 16:56	06/05/18 18:51	115	864	Northwest	x	x	x						
7	1560441	06/11/18 12:04	06/11/18 13:06	62	2,632	Metro West	x	x							
8	1560984	06/11/18 19:20	06/11/18 20:35	75	1,207	Metro West	x	x							
9	1560991	06/11/18 19:21	06/11/18 23:19	238	1,955	Metro West	x	x							
10	1561228	06/11/18 19:51	06/11/18 22:03	184	952	Metro West	x	x	x						
11	1561458	06/11/18 20:46	06/11/18 21:48	62	1,385	Metro West	x	x							
12	1563734	06/16/18 06:38	06/16/18 07:44	66	2,730	Metro East	x	x							
13	1563777	06/16/18 07:02	06/16/18 09:45	250	608	Metro East	x	x	x						
14	1565611	06/17/18 21:32	06/17/18 22:36	64	1,197	Southeast	x	x							
15	1565800	06/17/18 23:14	06/18/18 03:02	360	1,957	Metro West	x	x	x	x			x		x
16	1565924	06/18/18 02:28	06/18/18 04:54	292	2,060	Metro West	x	x	x						
17	1566691	06/18/18 23:39	06/19/18 10:47	888	2,432	Metro East	x	x							
18	1566760	06/19/18 04:54	06/19/18 06:15	81	1,948	Metro East	x	x							
19	1566815	06/19/18 06:04	06/19/18 08:49	165	1,672	Metro East	x	x	x						
20	1566799	06/19/18 06:04	06/19/18 07:15	71	2,217	Metro East	x	x	x				x		
21	1568460	06/22/18 19:25	06/22/18 21:15	239	3,769	Metro West	x	x	x						
22	1568706	06/23/18 00:19	06/23/18 02:28	230	1,028	Metro East	x	x							
23	1570055	06/26/18 02:25	06/26/18 04:04	99	1,028	Metro East	x	x	x						
24	1570861	06/27/18 15:29	06/28/18 04:18	880	1,816	Metro East	x	x	x				x		
25	1571834	06/29/18 14:24	06/29/18 16:05	202	3,616	Metro East	x	x	x						
26	1572151	06/29/18 18:46	06/29/18 20:39	162	1,364	Metro East	x	x	x						
27	1572496	06/30/18 00:04	06/30/18 01:29	85	2,571	Metro West	x	x	x						
28	1572993	06/30/18 17:03	06/30/18 19:22	139	1,357	Southeast	x	x							

PROTECTED DATA ENDS]

July

2018 MN Feeder Level Outages

Feeder	Primary Event #	Begin Time	Completion Time	Duration Min.	Customers Out	29 Total qualifying events					
						Region	Email sent to CAO	Email 1	Email 2	Email 3	Email 4
[PROTECTED DATA BEGINS]											
1	1573442	07/01/18 09:42	07/01/18 10:32	100	3,218	Metro West	X	X	X	X	
2	1573491	07/01/18 09:42	07/01/18 11:42	120	1,739	Metro West	X	X	X		
3	1574032	07/01/18 11:39	07/01/18 12:47	68	1,029	Southeast	X	X	X		
4	1574170	07/01/18 12:27	07/01/18 21:30	705	2,752	Metro West	X	X	X	X	
5	1574158	07/01/18 12:27	07/01/18 22:30	721	2,045	Metro West	X	X	X	X	X
6	1575964	07/03/18 01:41	07/03/18 05:35	381	1,438	Northwest	X	X	X		
7	1576766	07/03/18 19:12	07/03/18 21:01	207	1,654	Metro West	X	X	X		
8	1576989	07/04/18 09:25	07/04/18 10:49	248	2,060	Metro West	X	X	X	X	
9	1577174	07/04/18 10:41	07/04/18 11:19	76	833	Metro East	X	X	X		
10	1577351	07/04/18 13:01	07/04/18 13:38	85	2,714	Metro East	X	X	X		
11	1577445	07/04/18 14:19	07/04/18 16:12	113	1,914	Metro East	X	X	X		
12	1580358	07/07/18 09:30	07/07/18 12:55	429	730	Metro East	X				
13	1578988	07/07/18 20:25	07/07/18 21:19	107	1,693	Metro West	X	X	X		
14	1579715	07/09/18 00:53	07/09/18 02:30	251	3,526	Metro East	X	X	X		
15	1580272	07/10/18 04:53	07/10/18 06:10	211	2,043	Metro West	X	X	X		
16	1584647	07/10/18 16:50	07/10/18 20:25	746	1,903	Metro East	X	X	X		
17	1581009	07/11/18 12:16	07/11/18 13:51	129	1,173	Metro West	X	X	X	X	X
18	1581688	07/12/18 17:39	07/12/18 18:32	106	1,545	Metro West	X	X	X		
19	1581722	07/12/18 17:52	07/12/18 19:00	68	1,986	Metro West	X	X	X		
20	1581742	07/12/18 17:56	07/12/18 19:28	92	2,339	Metro West	X	X	X		
21	1581763	07/12/18 18:07	07/12/18 20:45	540	3,617	Metro East	X	X	X	X	X
22	1582239	07/12/18 23:09	07/13/18 02:30	402	630	Metro East	X				
23	1582843	07/13/18 10:47	07/13/18 12:08	179	1,100	Metro West	X	X	X		
24	1583618	07/14/18 21:27	07/14/18 22:40	146	2,044	Metro West	X	X	X		
25	1583835	07/15/18 10:28	07/15/18 12:04	96	1,865	Metro West	X	X	X	X	
26	1585864	07/20/18 14:41	07/20/18 15:37	91	2,310	Metro East	X	X	X	X	
27	1587644	07/26/18 20:47	07/27/18 05:11	640	2,352	Metro West	X	X	X		
28	1588452	07/28/18 18:11	07/28/18 18:50	78	2,091	Metro West	X	X	X		
29	1588740	07/29/18 02:50	07/29/18 04:43	179	1,386	Metro West	X	X	X	X	X

PROTECTED DATA ENDS]

August

2018 MN Feeder Level Outages

Feeder	Primary Event #	Begin Time	Completion Time	Duration Min.	Customers Out	Region	32 Total qualifying events			1 event with no email								
							Email sent to CAO	Email 1	Email 2	Email 3	Email 4	Email 5						
[PROTECTED DATA BEGINS																		
1	1590125	08/01/18 16:45	08/01/18 17:50	65	1,869	Metro West	X	X	X									
2	1590817	08/03/18 18:55	08/03/18 21:32	157	2,483	Northwest	X	X	X	X				X				
3	1591011	08/03/18 21:15	08/03/18 22:28	73	1,065	Metro East	X	X	X									
4	1590934	08/03/18 21:05	08/03/18 22:31	86	2,610	Metro East	X	X	X									
5	1591101	08/03/18 22:16	08/03/18 23:53	97	1,634	Metro West	X	X	X	X				X				
6	1591407	08/04/18 03:44	08/04/18 04:55	71	547	Metro West	X	X	X									
7	1591422	08/04/18 04:24	08/04/18 10:32	368	2,230	Metro West	X	X	X									
8	1593892	08/09/18 09:55	08/09/18 15:10	315	674	Metro West	X	X	X	X				X	X	X		
9	1594072	08/09/18 20:32	08/10/18 10:08	816	1,058	Northwest	X	X	X									
10	1594606	08/10/18 15:50	08/10/18 18:04	134	1,067	Metro West	X	X	X									
11	1594604	08/10/18 15:50	08/10/18 18:07	137	2,411	Metro West	X	X	X									
12	1594988	08/11/18 18:49	08/11/18 20:08	79	1,517	Southeast	X	X	X									
13	1596429	08/15/18 03:37	08/15/18 05:41	124	3,358	Metro West	X	X	X	X				X				
14	1596532	08/15/18 06:47	08/15/18 08:01	74	1,333	Metro East	X	X										
15	1596589	08/15/18 06:53	08/15/18 08:01	68	526	Metro East	X	X										
16	1596524	08/15/18 06:47	08/15/18 08:01	74	1,380	Metro East	X	X										
17	1596540	08/15/18 06:47	08/15/18 08:02	75	1,282	Metro East	X	X										
18	1596529	08/15/18 06:47	08/15/18 08:03	76	824	Metro East	X	X										
19	1596543	08/15/18 06:47	08/15/18 08:04	77	592	Metro East	X	X										
20	1597674	08/17/18 16:08	08/17/18 17:22	74	2,410	Metro West	X	X	X	X				X				
21	1597676	08/17/18 16:08	08/17/18 17:41	93	1,065	Metro West	X	X	X									
22	1597840	08/17/18 18:54	08/17/18 20:16	82	932	Metro West	X	X	X	X				X				
23	1598137	08/17/18 21:49	08/17/18 22:49	60	2,901	Metro West	X	X	X									
24	1601100	08/24/18 15:34	08/24/18 17:00	86	2,892	Metro East												
25	1600642	08/24/18 12:44	08/24/18 17:00	256	2,343	Metro East	X	X	X	X				X	X	X		
26	1601524	08/25/18 03:36	08/25/18 05:33	117	1,952	Metro East	X	X	X									
27	1601550	08/25/18 06:46	08/25/18 08:17	91	1,101	Metro West	X	X	X									
28	1601883	08/26/18 06:26	08/26/18 08:01	95	2,322	Metro East	X	X	X									
29	1602955	08/27/18 17:49	08/27/18 19:45	116	563	Metro East	X	X	X					X				
30	1603039	08/27/18 17:57	08/27/18 19:56	119	2,310	Metro East	X	X	X					X	X			
31	1602988	08/27/18 17:54	08/27/18 21:28	214	4,963	Metro East	X	X	X					X	X			
32	1602965	08/27/18 17:49	08/27/18 21:37	228	1,470	Southeast	X	X	X	X				X	X	X		
[PROTECTED DATA ENDS]																		

September

2018 MN Feeder Level Outages

Feeder	Primary Event #	Begin Time	Completion Time	Duration Min.	Customers Out	Region	37 Total qualifying events			0 event with no email								
							Email sent to CAO	Email 1	Email 2	Email 3	Email 4	Email 5						
[PROTECTED DATA BEGINS																		
1	1606090	09/02/18 23:00	09/03/18 01:37	157	1,012	Metro West	X	X	X	X	X							
2	1606565	09/04/18 13:36	09/04/18 14:40	64	664	Metro West	X	X	X	X	X							
3	1606756	09/04/18 20:25	09/04/18 23:18	173	834	Metro East	X	X	X	X	X	X	X					
4	1607987	09/07/18 23:51	09/08/18 01:40	109	538	Metro West	X	X	X	X	X	X	X					
5	1608975	09/11/18 22:27	09/12/18 00:10	103	3,085	Metro East	X	X	X	X	X	X	X					
6	1609684	09/14/18 15:38	09/14/18 16:41	63	1,575	Metro West	X	X	X	X	X	X	X					
7	1609941	09/16/18 03:52	09/16/18 05:01	69	2,938	Metro East	X	X	X	X	X	X	X					
8	1610333	09/17/18 13:34	09/17/18 14:53	79	1,416	Metro West	X	X	X	X	X	X	X					
9	1610427	09/17/18 14:10	09/17/18 16:57	167	1,382	Metro East	X	X	X	X	X	X	X					
10	1610423	09/17/18 14:11	09/17/18 16:29	138	1,201	Southeast	X	X	X	X	X	X	X					
11	1610905	09/17/18 23:41	09/18/18 01:51	130	2,057	Metro West	X	X	X	X	X	X	X					
12	1610983	09/18/18 03:57	09/18/18 06:07	246	6,306	Metro East	X	X	X	X	X	X	X					
13	1611228	09/18/18 08:18	09/18/18 09:33	75	2,084	Metro West	X	X	X	X	X	X	X					
14	1612361	09/20/18 16:15	09/21/18 16:50	1,475	1,876	Metro West	X	X	X	X	X	X	X	X				
15	1612331	09/20/18 16:15	09/20/18 18:17	122	1,441	Metro West	X	X	X	X	X	X	X	X	X			
16	1612744	09/20/18 16:57	09/20/18 22:05	308	5,750	Metro West	X	X	X	X	X	X	X	X	X			
17	1613097	09/20/18 18:27	09/22/18 00:34	1,807	1,201	Southeast	X	X	X	X	X	X	X	X	X			
18	1613052	09/20/18 18:27	09/23/18 20:50	4,463	1,631	Southeast	X	X	X	X	X	X	X	X	X			
19	1613077	09/20/18 18:28	09/21/18 04:14	586	599	Southeast	X	X	X	X	X	X	X	X	X			
20	1613108	09/20/18 18:29	09/22/18 17:40	2,831	929	Southeast	X	X	X	X	X	X	X	X	X			
21	1613106	09/20/18 18:33	09/20/18 19:36	63	2,720	Metro East	X	X	X	X	X	X	X	X	X			
22	1613242	09/20/18 18:41	09/20/18 22:41	240	1,150	Southeast	X	X	X	X	X	X	X	X	X			
23	1613254	09/20/18 18:44	09/20/18 19:56	72	1,162	Metro West	X	X	X	X	X	X	X	X	X			
24	1613270	09/20/18 18:46	09/20/18 20:11	85	581	Southeast	X	X	X	X	X	X	X	X	X			
25	1613256	09/20/18 18:46	09/20/18 20:11	85	519	Southeast	X	X	X	X	X	X	X	X	X			
26	1613241	09/20/18 18:48	09/20/18 23:02	254	2,291	Southeast	X	X	X	X	X	X	X	X	X			
27	1613534	09/20/18 19:08	09/20/18 22:08	180	569	Southeast	X	X	X	X	X	X	X	X	X			
28	1613906	09/20/18 19:37	09/23/18 08:43	3,666	876	Southeast	X	X	X	X	X	X	X	X	X			
29	1614586	09/21/18 02:09	09/21/18 04:30	141	1,549	Metro East	X	X	X	X	X	X	X	X	X			
30	1614772	09/21/18 06:59	09/21/18 08:05	66	827	Metro West	X	X	X	X	X	X	X	X	X			
31	1615885	09/22/18 13:37	09/23/18 02:21	764	1,406	Metro East	X	X	X	X	X	X	X	X	X			
32	1617293	09/26/18 01:25	09/26/18 03:55	150	3,522	Metro East	X	X	X	X	X	X	X	X	X			
33	1617326	09/26/18 05:35	09/26/18 07:48	133	525	Metro East	X	X	X	X	X	X	X	X	X			
34	1618544	09/29/18 22:10	09/30/18 00:48	158	1,406	Metro West	X	X	X	X	X	X	X	X	X			

PROTECTED DATA ENDS]

October

2018 MN Feeder Level Outages

	Feeder	Primary Event #	Begin Time	Completion Time	Duration Min.	Customers Out	9 Total qualifying events			2 event with no email		
							Region	Email sent to CAO	Email 1	Email 2	Email 3	Email 4
	[PROTECTED DATA BEGINS											
1		1619671	10/03/18 17:34	10/03/18 19:22	108	3,220	Metro West	X	X	X	X	
2		1619722	10/03/18 17:50	10/03/18 19:18	88	3,662	Metro East	X	X	X	X	
3		1619772	10/03/18 17:54	10/03/18 19:19	85	4,016	Metro East	X	X	X	X	
4		1619896	10/03/18 18:28	10/03/18 20:10	102	611	Metro West	X	X	X	X	
5		1620133	10/03/18 20:12	10/03/18 21:13	61	1,642	Metro West	X	X	X	X	
6		1620521	10/04/18 10:49	10/04/18 11:50	61	1,922	Metro East	X	X	X	X	
7		1623402	10/09/18 23:20	10/10/18 00:39	79	1,376	Metro East	X	X	X	X	
8		1624825	10/13/18 22:10	10/14/18 00:26	136	949	Metro West	X	X	X	X	
9		1626607	10/21/18 01:35	10/21/18 04:53	198	713	Northwest	X	X	X	X	
	PROTECTED DATA ENDS]											

December

2018 MN Feeder Level Outages

	Feeder	Primary Event #	Begin Time	Completion Time	Duration Min.	Customers Out	12 Total qualifying events			0 events with no en		
							Region	Email sent to CAO	Email 1	Email 2	Email 3	
[PROTECTED DATA BEGINS												
1		1635531	12/02/18 02:42	12/02/18 05:28	166	2,186	Metro West	X	X	X		
2		1635534	12/02/18 02:42	12/02/18 06:29	227	1,144	Southeast	X	X	X		
3		1636615	12/06/18 23:10	12/07/18 00:17	67	3,245	Metro East	X	X	X		
4		1639660	12/23/18 08:15	12/23/18 09:15	60	2,568	Metro East	X	X	X		
5		1640330	12/27/18 03:27	12/27/18 04:51	84	957	Metro East	X	X	X		
6		1640329	12/27/18 03:27	12/27/18 04:52	85	1,034	Metro East	X	X	X		
7		1640329	12/27/18 03:27	12/27/18 05:09	102	1,099	Metro East	X	X	X		
8		1640604	12/27/18 17:25	12/27/18 18:47	82	1,118	Metro West	X	X	X		
9		1640603	12/27/18 17:25	12/27/18 18:47	82	1,292	Northwest	X	X	X	X	
10		1640606	12/27/18 17:25	12/27/18 19:08	103	760	Northwest	X	X	X	X	
11		1640818	12/27/18 23:47	12/28/18 01:30	103	1,765	Metro West	X	X	X	X	
12		1640817	12/27/18 23:47	12/28/18 01:27	100	1,863	Metro West	X	X	X	X	

PROTECTED DATA ENDS]

5HUWa Ybh8 Ì 'A Ucf'Gfj JW=bMfi dhcb B chZVhcb'

H\YYa U`gUgg VhXk Jh h'gUHUWa Ybh\Uj YVYb YZ'YXgYdUfUymXl Yhc h'Y
UHUWa Ybh'g' c`i a Jbci gbUifY'

All Causes, Distribution Substation, Transmission Substation, and Transmission Line levels
All levels, No "Planned" Cause Includes Bulk Power Supply
All levels, "Planned" Cause only Includes Bulk Power Supply

Feeder ID	Substation	City	SAIFI	SAIDI	CAIDI	Total			Bulk Power Supply			Unplanned			Planned		
						Outages	Customers Affected	Customer Mins Out	Outages	Customers Affected	Customer Mins Out	Outages	Customers Affected	Customer Mins Out	Outages	Customers Affected	Customer Mins Out
[PROTECTED DATA BEGINS...]																	
1	Lauderdale		1.71	1,031.23	601.55	2	12	7,219	0	0	0	2	12	7,219	0	0	0
2	St Paul		1.81	461.80	254.48	8	568	144,544	0	0	0	7	564	142,800	1	4	1,744
3	Hugo		2.55	434.67	170.79	245	15,410	2,631,914	0	0	0	177	12,092	2,473,519	68	3,318	158,396
4	Oak Park Heights		3.48	406.14	116.59	15	2,118	246,935	0	0	0	12	2,110	246,706	3	8	229
5	Afton		3.70	393.73	106.30	149	18,227	1,937,541	0	0	0	81	14,608	1,770,223	68	3,619	167,318
6	South St Paul		2.04	371.84	182.09	40	3,696	673,022	0	0	0	32	3,439	657,855	8	257	15,167
7	Oak Park Heights		2.25	354.82	157.86	18	1,879	296,628	0	0	0	18	1,879	296,628	0	0	0
8	South St Paul		2.64	352.91	133.70	46	5,060	676,533	0	0	0	39	4,991	672,727	6	69	3,806
9	Roseville		3.34	348.36	104.45	17	3,442	359,504	0	0	0	15	3,417	358,451	2	25	1,053
10	Newport		3.15	321.04	102.08	33	11,511	1,175,019	0	0	0	33	11,511	1,175,019	0	0	0
11	Wyoming Twp		2.32	306.39	132.21	40	5,395	713,269	0	0	0	35	5,352	710,210	5	43	3,059
12	St Paul		2.75	302.49	109.95	76	9,698	1,066,286	1	1,380	102,120	53	9,452	1,046,767	23	246	19,519
13	St Paul		3.35	296.20	88.48	22	7,449	659,051	1	2,217	157,407	17	7,048	645,842	5	401	13,209
14	Oakdale		2.44	284.60	116.62	58	7,175	836,716	0	0	0	41	7,044	819,386	17	131	17,330
15	Oak Park Heights		1.58	284.24	180.42	60	3,102	559,677	0	0	0	55	3,063	557,247	5	39	2,430
16	St Paul		3.22	278.03	86.37	29	10,439	901,652	0	0	0	23	10,339	897,872	6	100	3,780
17	St Paul		2.49	269.29	108.33	17	1,141	123,602	2	917	43,548	17	1,141	123,602	0	0	0
18	Eagan		1.33	244.18	183.13	3	164	30,034	0	0	0	2	126	28,631	1	38	1,403
19	Oak Park Heights		0.92	242.34	262.56	52	1,857	487,582	0	0	0	49	1,839	486,066	3	18	1,516
20	St Paul		1.85	234.76	126.67	33	4,420	559,892	0	0	0	28	1,586	395,724	7	2,834	164,168
21	St Paul		1.10	228.90	208.82	31	2,029	423,687	0	0	0	26	2,011	421,425	5	18	2,262
22	White Bear Lake Twp		2.34	225.89	96.52	60	6,155	594,097	0	0	0	45	5,985	586,832	15	170	7,265
23	Newport		2.19	225.77	103.32	5	118	12,191	0	0	0	3	110	11,522	2	8	669
24	Hugo		1.36	216.15	159.17	42	8,554	1,361,517	0	0	0	38	8,372	1,343,498	4	182	18,019
25	Newport		1.92	207.79	108.09	44	1,609	173,918	0	0	0	40	1,473	169,575	4	136	4,343

(1) Based on Jan 1-Dec 31, 2018, year-end storm normalized data (IEEE Op Co Level)
 "Total" includes all causes, all levels
 "Bulk Power Supply" includes Distribution Substation, Transmission Substation, and Transmission Line levels, all cause codes
 "Unplanned" includes all levels and no outages with a primary cause code of "Intentional/Planned", Includes Bulk Power Supply outages
 "Planned" includes all levels and only outages with a primary cause code of "Intentional/Planned", Includes Bulk Power Supply outages

CMO: customer minutes out

Metro East Poor Performing Feeders (2)
 Based on performance Sept 2017 to Aug 2018, Storms Included

Feeder ID	Substation	City	SAIFI	SAIDI	CAIDI	Reasons for Poor Performance	Operational Changes Made, Considering or Planned
A	Oak Park Heights		0.94	249.11	264.23	2017 FPIP Total CMO = 1,874.9k, 2018 FPIP decreased Total CMO = 500.5k; 455.4k CMO due to trees.	Feeder trim completed 12/28/18. Replacing 5 cross-arms and installing 10 ClampStars over 10 Automatic Sleeves, schedule completion June 2019.
B	White Bear		1.44	189.26	131.03	Total CMO = 515.7k; CMO's 367.2k due to trees	Feeder trim completed 12/28/18. Project in construction to replace 30 cross-arms, install 29 ClampStars over Automatic Sleeves, and replace 6 spans of overhead wire. Schedule completion June 2019.
C	St Paul		2.33	168.04	71.98	Total CMO = 516.4k; 267.3k due to pole fire on 3/4/18 and 144.5k due to OH wires getting tangled up on 6/30/18.	Replace pole on 3/4/18 and untangle wire on 6/30/18.
D	Newport		2.13	241.17	113.20	Total CMO = 874.0k; 428.1k due to Connector hit by lightning in sub on 7/12/18 and 370.0k due to Tree contact on 6/29/18.	Feeder trim completed 12/28/18. Project in design to replace 1 span of wire to remove Automatic Sleeves, and install 3 ClampStars over Automatic Sleeves.
E	South Saint Paul		2.49	334.94	134.68	Total CMO = 639.7k; 529.8k due to trees on 6/29/18 & 7/4/18.	Project in design to replace 15 cross-arms and install 2 ClampStars over Automatic Sleeves.

...PROTECTED DATA ENDS

(2) Distribution outages only, storms are included

All Causes, Distribution Substation, Transmission Substation, and Transmission Line levels
 All levels, No "Planned" Cause Includes Bulk Power Supply
 All levels, "Planned" Cause only Includes Bulk Power Supply

Feeder ID	Substation	City	Total			Bulk Power Supply			Unplanned			Planned					
			SAIFI	SAIDI	CAIDI	Outages	Customers Affected	Customer Mins Out	Outages	Customers Affected	Customer Mins Out	Outages	Customers Affected	Customer Mins Out			
PROTECTED DATA BEGINS...																	
1	Mound		4.17	610.54	146.51	79	8,168	1,196,668	1	1,955	91,885	67	8,020	1,187,157	12	148	9,511
2	Watertown		3.05	595.12	194.92	22	4,311	840,311	1	1,382	91,212	16	4,304	839,657	6	7	654
3	Winsted Twp		2.27	460.51	203.23	40	1,525	309,920	0	0	0	9	733	87,531	31	792	222,389
4	Golden Valley		4.72	419.61	88.94	24	9,700	862,710	0	0	0	20	9,666	861,798	4	34	912
5	Edina		3.68	413.46	112.48	63	7,521	845,934	0	0	0	53	7,192	807,323	10	329	38,611
6	Plymouth		6.23	409.69	65.74	15	11,610	763,246	1	1,860	61,380	13	10,376	745,840	2	1,234	17,406
7	Waconia		2.27	406.40	179.05	61	2,903	519,786	0	0	0	24	2,545	482,966	37	358	36,820
8	Wayzata		3.75	385.04	102.55	23	3,518	360,784	0	0	0	21	3,204	346,967	2	314	13,817
9	Bloomington		1.61	377.35	234.69	19	3,457	811,311	1	2,148	83,772	12	3,424	804,555	7	33	6,756
10	Deephaven		3.16	343.08	108.61	104	2,862	310,829	1	946	45,408	35	2,628	291,727	69	234	19,102
11	St. Louis Park		2.90	339.45	117.08	70	6,964	815,360	2	4,821	508,647	56	6,471	721,279	14	493	94,081
12	Burnsville		3.89	326.36	83.93	33	4,285	359,654	0	0	0	19	4,070	355,100	14	215	4,554
13	Mound		3.32	320.38	96.44	36	3,993	385,097	0	0	0	27	3,886	381,730	9	107	3,367
14	Bloomington		2.33	313.98	134.90	9	789	106,438	0	0	0	9	789	106,438	0	0	0
15	Wayzata		2.44	311.47	127.53	40	3,026	385,908	0	0	0	31	2,992	383,050	9	34	2,858
16	Burnsville		2.43	307.98	126.84	50	4,004	507,860	0	0	0	36	3,875	503,996	14	129	4,464
17	Edina		3.63	283.65	78.20	31	5,013	392,010	0	0	0	29	5,007	391,616	2	6	394
18	Deephaven		2.39	282.71	109.77	29	3,329	365,432	1	1,411	67,728	21	3,306	363,046	8	23	2,386
19	St. Louis Park		1.86	259.18	139.35	16	2,176	303,235	0	0	0	15	2,162	302,661	1	14	574
20	St. Louis Park		2.13	254.96	119.95	12	2,268	272,041	2	2,132	242,023	10	2,255	271,696	2	13	345
21	Minneapolis		1.27	253.74	200.22	8	1,062	212,630	0	0	0	6	1,010	206,297	2	52	6,333
22	Plymouth		4.52	245.42	54.34	22	7,971	433,161	0	1,747	57,651	18	7,964	433,017	4	7	144
23	Greenfield		2.05	244.49	119.27	18	1,437	171,386	2	1,395	161,844	13	1,415	166,912	5	22	2,474
24	Waconia Twp		1.17	240.43	204.67	41	1,526	312,325	0	0	0	32	1,496	309,482	9	30	2,843
25	Minneapolis		2.21	235.74	106.67	7	663	70,723	0	0	0	5	648	69,344	2	15	1,379

(1) Based on Jan 1-Dec 31, 2018, year-end storm normalized data (IEEE Op Co Level)

"Total" includes all causes, all levels

"Bulk Power Supply" includes Distribution Substation, Transmission Substation, and Transmission Line levels, all cause codes

"Unplanned" includes all levels and no outages with a primary cause code of "Intentional/Planned", Includes Bulk Power Supply outages

"Planned" includes all levels and only outages with a primary cause code of "Intentional/Planned", Includes Bulk Power Supply outages

Metro West Poor Performing Feeders (2)

Based on performance Sept 2017 to Aug 2018, Storms Included

Feeder ID	Substation	City	SAIFI	SAIDI	CAIDI	Reasons for Poor Performance			Operational Changes Made, Considering or Planned		
A		Bloomington	0.63	369.96	586.90	Total CMO = 794.7k; 690.2k due to cable failure on 1/9/2018			First fault span of cable replaced 2/1/2018, 2nd span replaced 5/2/2018.		
B		Savage	2.36	366.22	155.30	Total CMO = 726.9k; 384.8k due to broken poles on 5/24/18 and 251.1k due to trees on 7/12/18.			Replace poles on 5/24/18. Feeder Trim scheduled in 2019.		
C		Maple Grove	1.46	125.72	85.84	Total CMO = 538.8k; 185.6k CMO due to Failed Lightning arrester on 6/20/18, 186.0k due to cable failure on 8/17/18 and 31.5k due to trees.			Failed Lightning Arrester replaced 8/18. Failed cable replaced 12/11/18. Feeder Trim completed 12/31/17.		
D		Mound	2.78	482.37	173.38	Total CMO = 941.1k; 799.7k CMO due to trees outages on 6/11/18 & 6/17/18.			Feeder Trim completed 3/7/2019.		
E		Waconia	5.11	655.66	128.40	Total CMO = 820.9k; 4th qtr 2017 unknowns in Oct found may have been due to be Conductor Galloping in Dec accounting for 291.9k CMO. 307.3k CMO's caused by lightning strike and wire down on 8/4/18. 80.0k CMO due to trees.			Installed Spacers for Galloping 12/18. Repaired wire down from 8/4/18 outage. Feeder Trim due 2020.		

...PROTECTED DATA ENDS

(2) Distribution outages only, storms are included

All Causes,
 Distribution Substation,
 Transmission Substation,
 and Transmission Line levels

All levels, No "Planned" Cause
 Includes Bulk Power Supply

All levels, All Causes included
 Total

All levels, "Planned" Cause only
 Includes Bulk Power Supply

Feeder ID	Substation	City	SAIFI	SAIDI	CAIDI	Northwest			Total			Unplanned			Planned		
						Outages	Customers Affected	Customer Mins Out	Outages	Customers Affected	Customer Mins Out	Outages	Customers Affected	Customer Mins Out	Outages	Customers Affected	Customer Mins Out
[PROTECTED DATA BEGINS...]																	
1		Freeport	2.14	959.87	448.42	10	807	361,872	2	744	348,564	9	806	361,839	1	1	33
2		Freeport	2.03	951.88	468.05	8	543	254,153	2	530	252,670	8	543	254,153	0	0	0
3		Sacred Heart	4.72	749.79	158.74	17	1,606	254,930	1	342	24,624	17	1,606	254,930	0	0	0
4		Fargo	6.31	702.20	111.27	40	15,948	1,774,466	0	0	0	40	15,948	1,774,466	0	0	0
5		Granite Falls	1.99	420.20	210.63	19	1,185	249,597	0	0	0	18	1,135	242,297	1	50	7,300
6		Morgan Twp	1.50	404.19	269.63	29	1,628	438,953	0	0	0	28	1,494	433,325	1	134	5,628
7		Atwater	1.77	376.19	212.52	25	1,078	229,098	1	598	3,588	24	1,077	228,940	1	1	158
8		Atwater	2.00	362.59	181.29	4	78	14,141	1	38	228	4	78	14,141	0	0	0
9		Avon	3.57	349.71	98.03	37	1,666	163,315	0	0	0	22	1,626	159,487	15	40	3,829
10		Cold Spring	2.22	332.64	150.03	6	1,583	237,503	1	703	41,477	6	1,583	237,503	0	0	0
11		Becker	1.50	267.85	178.31	13	347	61,873	0	0	0	13	347	61,873	0	0	0
12		Becker	2.12	237.15	112.02	15	1,827	204,659	0	0	0	13	1,821	204,237	2	6	422
13		Brownton	2.31	224.59	97.02	4	125	12,128	1	53	4,346	4	125	12,128	0	0	0
14		Avon	1.51	217.17	143.65	23	2,168	311,423	0	0	0	17	1,636	260,629	6	532	50,794
15		St Cloud	1.87	216.47	115.52	50	6,626	765,444	0	0	0	34	6,547	752,724	16	79	12,720
16		Clara City	1.61	210.76	131.09	24	1,402	183,784	0	0	0	22	1,400	183,545	2	2	239
17		Richmond	1.63	200.30	123.01	15	1,262	155,234	1	769	95,589	12	1,071	151,987	3	191	3,247
18		Glenwood	1.52	197.16	129.60	15	1,284	166,401	1	849	112,917	12	1,263	165,229	3	21	1,172
19		Dassel	2.24	179.89	80.23	12	1,704	136,717	2	1,527	114,329	11	1,703	136,606	1	1	111
20		Westport Twp	1.98	173.46	87.61	3	99	8,673	2	98	8,526	3	99	8,673	0	0	0
21		Waverly	2.09	170.22	81.45	13	2,230	181,625	0	0	0	13	2,230	181,625	0	0	0
22		Flowing Twp	1.08	162.25	149.63	18	848	126,882	1	790	95,590	18	848	126,882	0	0	0
23		Howard Lake	2.05	161.44	78.90	5	2,034	160,475	0	0	0	5	2,034	160,475	0	0	0
24		Paynesville Twp	1.21	160.02	132.42	34	3,009	398,443	0	0	0	29	2,766	378,307	5	243	20,136
25		St Cloud	0.78	147.56	189.70	78	2,689	510,106	0	0	0	36	1,142	226,487	42	1,547	283,619

CMO: customer minutes out

Northwest Poor Performing Feeders (2)
 Based on performance Sept 2017 to Aug 2018, Storms Included

Feeder ID	Substation	City	SAIFI	SAIDI	CAIDI	Reasons for Poor Performance	Operational Changes Made, Considering or Planned
A		St Cloud	1.86	220.02	118.29	Total CMO = 775.1k; 547.4k due to Pole Fire on 5/8/18, 131.7k Lightning hit pole on 8/27/18 locking open recloser.	Pole was replaced on 5/18, and repairs made on lighting strike and reclosed recloser.
B		Morgan	1.37	397.88	290.42	Total CMO = 431.7k; 404.6 CMO due to galloping conductor locking out feeder breaker on 3/5/18.	Repaired down wire that was galloping on 3/2018. Feeder Trim completed 12/29/17.
C		St Cloud	1.85	127.07	68.78	Total CMO = 606.9k; 191.6k due to Automatic Sleeve Failure on 10/21/2017, 191.6k Trees various dates.	Repairs made at Automatic Failure 10/17. Feeder Trim actively being worked on now 3/12/19.
D		Paynesville	1.20	171.57	143.55	Total CMO = 426.3k; 318.4k due to tree on 8/3/18.	Feeder Trim scheduled for 2019.
E		Paynesville	0.74	134.86	182.67	Total CMO = 359.7k; 298.5k due to broken cross-arm on 7/13/18.	Cross-Arm replaced 7/2018.

...PROTECTED DATA ENDS

(1) Based on Jan 1-Dec 31, 2018, year-end storm normalized data (IEEE Op Co Level)

"Total" includes all causes, all levels

"Bulk Power Supply" includes Distribution Substation, Transmission Substation, and Transmission Line levels, all cause codes

"Unplanned" includes all levels and no outages with a primary cause code of "Intentional/Planned". Includes Bulk Power Supply outages

"Planned" includes all levels and only outages with a primary cause code of "Intentional/Planned". Includes Bulk Power Supply outages

(2) Distribution outages only, storms are included

All Causes, Distribution Substation, Transmission Substation, and Transmission Line levels
 All levels, No "Planned" Cause Includes Bulk Power Supply
 All levels, "Planned" Cause only Includes Bulk Power Supply

Feeder ID	Substation	City	SAIFI	SAIDI	CAIDI	Total			Bulk Power Supply			Unplanned			Planned		
						Outages	Customers Affected	Customer Mins Out	Outages	Customers Affected	Customer Mins Out	Outages	Customers Affected	Customer Mins Out	Outages	Customers Affected	Customer Mins Out
(PROTECTED DATA BEGINS...																	
1	Wabasha	2.30	763.74	332.57	58	6,026	2,004,053	0	0	0	54	5,547	1,984,334	4	479	19,719	
2	Pipestone	4.22	696.69	164.93	47	4,389	723,857	1	1,069	6,414	35	2,511	677,717	12	1,878	46,140	
3	Wheeler Twp	1.82	677.60	371.81	31	893	332,022	0	0	0	30	885	331,838	1	8	184	
4	Gifford Twp	2.64	625.11	236.35	47	1,981	488,204	2	1,296	257,197	47	1,981	488,204	0	0	0	
5	Slayton Twp	2.62	595.03	227.19	22	2,001	454,601	1	747	50,796	21	1,254	403,805	1	747	50,796	
6	Le Ray Twp	4.10	527.78	128.72	16	2,370	305,058	1	567	13,608	16	2,370	305,058	0	0	0	
7	Pine Island	4.01	449.73	112.08	15	3,844	430,842	1	954	87,768	15	3,844	430,842	0	0	0	
8	Osborne Twp	3.20	423.39	132.47	18	2,119	280,709	3	1,988	233,472	16	2,107	279,692	2	12	1,017	
9	Osborne Twp	3.09	382.13	123.56	8	167	20,635	3	160	18,939	8	167	20,635	0	0	0	
10	Mazeppa	2.04	364.42	178.55	17	1,296	231,405	1	627	33,231	17	1,296	231,405	0	0	0	
11	Pipestone	3.15	359.98	114.11	25	5,038	574,893	1	1,589	9,534	23	3,448	565,289	2	1,590	9,604	
12	Kasota Twp	3.05	344.83	113.10	16	1,433	162,070	2	936	31,265	16	1,433	162,070	0	0	0	
13	Pine Island	2.56	342.98	134.10	36	2,596	348,124	1	1,015	93,380	36	2,596	348,124	0	0	0	
14	Morristown	2.59	323.98	124.94	57	3,104	387,807	1	1,197	76,608	56	3,097	387,513	1	7	294	
15	Danville Twp	2.63	314.79	119.88	11	1,032	123,714	2	788	87,851	11	1,032	123,714	0	0	0	
16	Mapleton Twp	2.45	309.95	126.58	33	2,456	310,877	2	1,979	220,686	33	2,456	310,877	0	0	0	
17	Red Wing	2.39	291.55	121.96	32	4,996	609,331	2	4,230	469,530	23	4,764	586,973	9	232	22,358	
18	Chanarambie Twp	3.01	289.59	96.16	4	524	50,389	3	523	50,250	4	524	50,389	0	0	0	
19	Owatonna Twp	1.00	281.00	281.00	1	35	9,835	0	0	0	1	35	9,835	0	0	0	
20	Red Wing	1.42	259.01	182.07	12	478	87,028	1	335	32,495	12	478	87,028	0	0	0	
21	Randolph Twp	1.14	244.11	214.48	25	1,244	266,817	0	0	0	24	1,233	266,246	1	11	572	
22	Belle Plaine	1.15	241.91	209.66	20	1,320	276,746	0	0	0	20	1,320	276,746	0	0	0	
23	Lake City	1.52	241.39	158.94	20	284	45,140	0	0	0	18	127	31,212	2	157	13,928	
24	Red Wing	2.04	238.99	116.87	20	2,049	239,465	0	0	0	18	2,047	239,370	2	2	95	
25	Waseca	2.00	221.00	110.50	2	2	221	1	1	6	2	2	221	0	0	0	

(1) Based on Jan 1-Dec 31, 2018, year-end storm normalized data (IEEE Op Co Level)

"Total" includes all causes, all levels

"Bulk Power Supply" includes Distribution Substation, Transmission Substation, and Transmission Line levels, all cause codes

"Unplanned" includes all levels and no outages with a primary cause code of "Intentional/Planned", Includes Bulk Power Supply outages

"Planned" includes all levels and only outages with a primary cause code of "Intentional/Planned", Includes Bulk Power Supply outages

CMO: customer minutes out

Southeast Poor Performing Feeders (2)

Based on performance Sept 2017 to Aug 2018, Storms Included

Feeder ID	Substation	City	SAIFI	SAIDI	CAIDI	Reasons for Poor Performance	Operational Changes Made, Considering or Planned
A	Wabasha	2.02	733.42	363.67	Total CMO = 1,928.9k; 973.7k due to 4 broken poles on 4/14/18 during Winter Storm/Blizzard.	Replace poles on 4/18.	
B	Red Wing	2.06	237.98	115.53	Total CMO = 238.2k; 221.2 CMO due to recloser tripping open due to Connector failure on 4/13/18 and Animal Contact on Gang Switch on 3/26/18.	Recloser was removed and Gang Switch rebuilt on Feeder Re-conductor project completed 5/2018. Feeder Trim completed on 12/29/16.	
C	Eagle Lake	2.15	427.97	199.49	Total CMO = 247.4k; 129.8k CMO due to lightning hitting cross arm brace causing phase to fall into guy wire on 5/8/2018, 93.6 CMO due to Failed insulator on switch 5/23/18.	Cross Arm replaced on 5/8/2018 and Insulator replaced on switch 5/23/2018.	
D	Mazeppa	1.13	179.06	158.38	Total CMO = 354.7; 192.2k due to building fire burning near OH wire on 3/11/18.	Replace overhead wire on 3/2018.	
E	Waterville	0.93	179.06	192.66	Total CMO = 291.6k; 62.3k due to Connector Failure in Extreme Cold on 12/25/17, 42.4k due to Fuse Cutout failure on 12/4/17 and 63.5k due to Trees and unknown.	Tightened 6 overhead spans on wire on 12/2017. Replaced cutouts on 12/17. Feeder Trim scheduled for 2019.	

...PROTECTED DATA ENDS

(2) Distribution outages only, storms are included

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R=Residential
 C=Commercial

	Jan-18		Feb-18		Mar-18		Apr-18		May-18		Jun-18		Jul-18		Aug-18		Sep-18		Oct-18		Nov-18		Dec-18		Total 2018	
	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C
Number of customers who received disconnect notices 1,2	59,275	9,614	66,042	12,385	70,625	19,673	55,875	10,507	31,122	11,656	26,449	13,900	23,641	8,312	38,104	11,424	35,280	12,763	43,242	10,215	50,973	11,275	58,383	12,892	559,011	144,656
Number of customers who sought cold weather rule protection 1	13,839	0	11,353	0	15,162	0	29,534	0	0	0	0	0	0	0	0	0	0	0	19,697	0	15,353	0	10,534	0	115,472	0
Granted	13,839	0	11,353	0	15,162	0	29,534	0	0	0	0	0	0	0	0	0	0	0	19,697	0	15,353	0	10,534	0	115,472	0
Number of customers locked for nonpayment	974	62	926	45	864	66	1,751	66	2,693	60	2,130	52	1,573	36	2,106	54	1,727	45	1,289	50	821	29	483	15	17,337	580
Number of total customers restored to service within 24 hours	503	9	490	7	502	15	664	4	914	6	769	10	499	5	545	5	500	3	487	10	426	0	287	0	6,586	74
Number of customers restored to service with pay arrangements	47	1	56	0	17	0	141	0	283	1	290	0	177	0	133	0	108	0	70	1	87	0	87	0	1,506	3
Number of customers requesting emergency medical account status																										
Requested	109	0	110	0	172	0	342	0	362	0	292	0	271	0	365	0	298	0	242	0	151	0	114	0	2,818	0
Denied 3	17	0	27	0	42	0	77	0	71	0	80	0	58	0	67	0	57	0	29	0	13	0	13	0	551	0

Number of bankruptcies: 394

- The data for customers receiving disconnect notices and seeking cold weather rule protection represents a combination of gas and electric customers. Approximately 94% of Xcel Energy's Minnesota customers are electric or combined gas and electric customers. For those customers receiving gas and electric service, the disconnect is due to the total amount of regulated charges overdue. Thus the ability to track disconnects due to electric non-payment would be difficult since Xcel Energy's customer service system does not have the functionality to sort the data in this manner.
- Under Minn. R. 7620.2400 the utility is required to send duplicate notices to multiple addresses for each disconnected customer, the service address, mailing address, and any third party authorized on the account. This requirement increases the number of notices sent out each year. Therefore, numbers reflected do include duplicates and does not separately count unique customer circumstances.

- Reasons for denial of emergency medical account status:
 Customer did not return form.
 Doctor refused to certify as Medical/Life Support.

Residential													
	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Total 2018
# Service Installations	114	115	291	296	293	247	237	302	211	474	327	100	3007
Avg days to complete from customer and site ready	10.2	12.6	7.1	7.5	5.3	7.3	6.3	6.7	8.1	4.9	5.5	6.5	7.33
Commercial													
	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Total 2018
# Service Installations	42	48	22	29	65	50	63	55	35	77	68	69	623
Avg days to complete from customer and site ready	4.5	6.4	7.2	3.7	3.1	3.5	4.0	4.5	4.8	3.6	6.7	4.7	4.60

	January	February	March	April	May	June	July	August	September	October	November	December	2018
1 All Residential Calls offered to Agents	72,064	61,260	71,621	77,502	96,240	96,749	99,033	101,568	90,333	95,451	73,645	62,142	997,608
2 All BSC Calls Offered to Agents	5,570	4,510	4,914	4,768	5,258	4,999	5,011	5,199	4,928	5,334	4,654	3,909	59,054
3 All Credit Calls Offered to Agents	13,325	13,279	18,282	30,679	18,571	14,508	12,295	17,765	18,446	18,621	13,921	14,038	203,730
4 All PAR Calls Offered to Agents	2,999	2,860	3,640	6,043	6,310	4,937	4,617	5,784	4,910	4,481	3,128	2,266	51,975
5 All Calls Offered to Agents	93,958	81,909	98,457	118,992	126,379	121,193	120,956	130,316	118,617	123,887	95,348	82,355	1,312,367
6 All Calls Excluding Credit and PAR	90,959	79,049	94,817	112,949	120,069	116,256	116,339	124,532	113,707	119,406	92,220	80,089	1,260,392
7 All Residential Calls Answered by Agents within 20 seconds	55,878	47,230	55,471	57,591	72,232	65,104	62,060	61,009	80,167	84,146	67,211	49,010	757,109
8 All BSC Calls Answered by Agents within 20 seconds	4,155	3,691	4,109	3,934	3,608	3,477	3,123	3,617	3,375	3,766	3,540	2,952	43,347
9 All Credit Calls Answered by Agents within 20 seconds	11,781	11,470	15,482	22,992	15,973	11,382	9,042	14,100	17,519	17,493	13,018	11,875	172,127
10 All PAR Calls Answered by Agents within 20 seconds	2,492	2,328	2,914	4,493	4,729	3,913	3,618	4,222	3,563	3,538	2,675	1,962	40,447
11 All Calls Answered by Agents within 20 seconds	74,306	64,719	77,976	89,010	96,542	83,876	77,843	82,948	104,624	108,943	86,444	65,799	1,013,030
12 All Calls Answered by Agents within 20 seconds Excluding Credit and PAR	71,814	62,391	75,062	84,517	91,813	79,963	74,225	78,726	101,061	105,405	83,769	63,837	972,583
13 Non-Billing and Non-Outage Calls Completed in IVR	21,935	24,415	27,582	30,428	29,151	27,173	29,178	32,924	28,025	27,734	25,550	25,899	329,994
14 Billing Calls Handled by IVR	120,940	116,778	130,950	128,219	122,147	124,258	126,223	133,470	120,440	121,244	110,718	111,281	1,466,668
15 Outage Calls Handled by IVR	13,110	8,229	19,187	14,896	32,663	34,116	39,213	28,367	32,124	21,048	10,449	9,603	263,005
16 Outage Calls Offered to Agents	11,219	7,728	11,893	11,784	19,894	20,724	20,843	17,209	17,257	14,886	9,593	8,604	171,634
17 Total Outage Calls	24,329	15,957	31,080	26,680	52,557	54,840	60,056	45,576	49,381	35,934	20,042	18,207	434,639
18 All Calls Offered to Agents + Outage Calls Handled by IVR	107,068	90,138	117,644	133,888	159,042	155,309	160,169	158,683	150,741	144,935	105,797	91,958	1,575,372
19 All Calls Answered by Agents within 20 seconds + Outage Calls Handled by IVR	87,416	72,948	97,163	103,906	129,205	117,992	117,056	111,315	136,748	129,991	96,893	75,402	1,276,035
20 Res and BSC Calls Offered to Agents + Outage Calls Handled by IVR	104,069	87,278	114,004	127,845	152,732	150,372	155,552	152,899	145,831	140,454	102,669	89,692	1,523,397
21 Res and BSC Calls Answered by Agents within 20 seconds + Outage Calls Handled by IVR	84,924	70,620	94,249	99,413	124,476	114,079	113,438	107,093	133,185	126,453	94,218	73,440	1,235,588
22 All Calls Offered to Agents + Outage Calls Handled by IVR + Billing Calls Handled by IVR	228,008	206,916	248,594	262,107	281,189	279,567	286,392	292,153	271,181	266,179	216,515	203,239	3,042,040
23 All Calls Answered by Agents within 20 seconds + Outage Calls Handled by IVR + Billing Calls Handled by IVR	208,356	189,726	228,113	232,125	251,352	242,250	243,279	244,785	257,188	251,235	207,611	186,683	2,742,703

	January	February	March	April	May	June	July	August	September	October	November	December	2018
24 Res and BSC Calls Offered to Agents + Outage Calls Handled by IVR + Billing Calls Handled by IVR	225,009	204,056	244,954	256,064	274,879	274,630	281,775	286,369	266,271	261,698	213,387	200,973	2,990,065
25 Res and BSC Calls Answered by Agents within 20 seconds + Outage Calls Handled by IVR + Billing Calls Handled by IVR	205,864	187,398	225,199	227,632	246,623	238,337	239,661	240,563	253,625	247,697	204,936	184,721	2,702,256
26 Service Level All Calls (Residential, BSC, Credit and PAR and all calls handled by IVR)	92.1%	92.6%	92.6%	89.8%	90.4%	87.8%	86.3%	85.4%	95.3%	94.9%	96.3%	92.8%	91.1%
27 Service Level All Calls (Residential, BSC, Credit and PAR) and IVR Handled Outage Calls	81.6%	80.9%	82.6%	77.6%	81.2%	76.0%	73.1%	70.1%	90.7%	89.7%	91.6%	82.0%	81.0%
28 Service Level Res and BSC Calls, excluding Credit and calls (including outage and billing calls handled by IVR)	91.5%	91.8%	91.9%	88.9%	89.7%	86.8%	85.1%	84.0%	95.3%	94.6%	96.0%	91.9%	90.4%
29 Service Level Res and BSC Calls, excluding credit calls (not including billing calls handled by IVR)	81.6%	80.9%	82.7%	77.8%	81.5%	75.9%	72.9%	70.0%	91.3%	90.0%	91.8%	81.9%	81.1%
30 Service Level (agent only)	79.1%	79.0%	79.2%	74.8%	76.4%	69.2%	64.4%	63.7%	88.2%	87.9%	90.7%	79.9%	77.2%
31 Average Speed of Answer - ASA (Agent only Residential, BSC, Credit and PAR)	18	19	21	38	23	25	31	31	13	14	9	16	22
ASA Residential	20	22	24	28	24	26	32	34	11	14	8	17	22
ASA BSC	26	18	16	17	38	36	51	41	40	38	25	29	31
ASA Credit	9	9	10	67	12	14	16	14	5	4	5	10	18
ASA PAR	15	18	22	34	30	25	25	38	40	26	14	15	27

Notes:

IVR handled calls are answered immediately with an average speed to answer calls calculated using 0 seconds and includes non-billing and non-outage IVR calls that did not route to an agent. These calls may have been offered messaging that can answer many upfront questions, including but not limited to billing credits, scam information, call before you dig information, the hold time length, or will direct the caller to other resources.

The service level formula is: (All Calls Answered by Agents within 20 seconds + All IVR Handled calls) / (All Calls Offered to Agents + All IVR Handled Calls)

The service level formula is: (All Calls Answered by Agents within 20 seconds + Outage Calls Handled by IVR) / (All Calls Offered to Agents + Outage Calls Handled by IVR)

Agent call volumes includes calls offered and handled at the Residential call centers (Amarillo, Centre Pointe and Sky Park), at the Business call center at Sky Park and Denver, at the Credit call centers at Amarillo, Centre Pointe and Sky Park.

Data on calls to agents is gathered from the phone switch (Avaya) based on skills.

Data on IVR calls is gathered from the IVR reporting tool (Voice Portal).

**Minnesota Public Utilities Commission
Consumer Affairs Office
121-7th Place East
St. Paul, MN 55101-2147**

7826.2000 REPORTING CUSTOMER COMPLAINTS

For the period of January 01, 2018 to December 31, 2018

Name of Utility: Northern States Power Company
Address: 3115 Centre Pointe Drive, Roseville, MN 55113
Prepared by: Jeff Eden, Customer Advocate Analyst, Customer Care 303-294-2214

Customer Type	Source	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
Commercial	BBB	0	0	0	0	0	0	0	0	0	0	0	0
	Commission	1	1	2	0	0	0	1	2	2	0	0	1
	Informational	0	0	1	0	0	0	0	0	0	1	0	2
	Internal	0	0	0	2	1	0	1	2	0	0	0	7
	OAG	0	0	1	0	0	0	0	1	0	0	0	4
	Officer	0	0	0	0	0	0	0	0	0	0	0	1
	Referral	0	0	0	0	0	0	0	0	0	0	0	1
Commercial Total		1	1	6	2	4	0	4	2	4	2	0	27
Residential	BBB	2	1	1	1	0	2	3	2	1	0	6	19
	Commission	11	6	13	39	22	14	27	26	29	22	18	4
	Commission/Internal	0	0	0	2	0	0	0	0	0	0	0	0
	Commission/OAG	0	0	0	0	0	0	0	0	0	0	0	2
	Informational	0	0	0	0	0	0	0	0	0	0	0	2
	Internal	5	7	9	9	8	8	10	12	8	8	4	14
	OAG	16	6	11	27	20	21	26	36	24	36	15	93
	OAG/Officer	0	0	1	0	0	0	0	1	1	0	1	5
	Officer	2	0	1	1	0	3	1	4	0	0	4	17
	Referral	0	0	0	0	0	0	0	0	0	0	0	1
	Repeat Customer	0	1	0	0	1	0	1	0	0	0	0	3
	OAG/Informational	0	0	0	0	0	1	0	0	0	0	0	1
	Commission/Officer	0	0	0	0	0	0	0	1	0	0	0	1
Residential Total		36	21	39	79	53	49	70	85	65	67	49	22
Industrial	Commission	0	0	0	0	0	0	0	0	0	0	0	1
	Officer	0	0	0	0	0	0	0	0	0	0	0	1
Industrial Total		0	0	0	0	0	0	0	1	0	0	0	2
2018		37	22	45	82	57	49	71	90	67	71	51	22
													664

A. The Number of Complaints Received

Minnesota Public Utilities Commission
Consumer Affairs Office
1217 Park Plaza
St. Paul, MN 55101-2147

Name of Utility: Northern States Power Company
Address: 3115 Centre Pointe Drive, Roseville, MN 55113
Prepared by: Jeff Edeh, Customer Advocate Analyst, Customer Care 303-294-2214

7/26/2018 REPORTING CUSTOMER COMPLAINTS
For the period of January 01, 2018 to December 31, 2018.

C. The Number and Percentage of Complaints Resolved upon:

Customer Type	DTR Status	Month												2018 Total			
		Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18				
Commercial	Immediate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial	10 Days or Less	1	0	1	0	2	3	0	0	0	0	0	0	0	0	0	0
Commercial	Greater Than 10 Days	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial	Commercial Total	1	0	1	0	2	3	0	0	0	0	0	0	0	0	0	0
Industrial	Immediate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	10 Days or Less	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	Greater Than 10 Days	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	Industrial Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential	Immediate	8	4	4	2	11	13	11	13	14	14	14	15	5	13	5	13
Residential	10 Days or Less	8	4	4	2	11	13	11	13	14	14	14	15	5	13	5	13
Residential	Greater Than 10 Days	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential	Residential Total	8	4	4	2	11	13	11	13	14	14	14	15	5	13	5	13
Government	Immediate	36	21	39	79	53	49	70	85	67	49	27	49	27	65	27	65
Government	10 Days or Less	36	21	39	79	53	49	70	85	67	49	27	49	27	65	27	65
Government	Greater Than 10 Days	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Government	Government Total	36	21	39	79	53	49	70	85	67	49	27	49	27	65	27	65
Grand Total	Immediate	8	4	4	2	12	13	11	15	14	14	14	15	5	13	5	13
Grand Total	10 Days or Less	29	18	39	59	45	36	59	73	51	54	35	51	17	51	17	51
Grand Total	Greater Than 10 Days	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	Grand Total	37	22	43	82	57	49	71	88	67	71	51	67	22	64	22	64

D. The Number and Percentage of Complaints Resolved by Taking the Following Actions:

Customer Type	MVA Action	Month												2018 Total			
		Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18				
Commercial	Action not in Control of Utility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial	Refuse Action Cost Requested	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial	Take Action Cost Requested	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Commercial	Commercial Total	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	Action not in Control of Utility	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	Refuse Action Cost Requested	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	Take Action Cost Requested	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	Industrial Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential	Action not in Control of Utility	7	0	6	7	4	4	6	13	16	10	5	3	1	18	1	18
Residential	Refuse Action Cost Requested	5	3	5	3	4	2	8	8	8	5	7	10	9	7	10	9
Residential	Take Action Cost Requested	7	11	15	21	28	26	27	41	46	24	26	4	25	4	25	4
Residential	Residential Total	19	14	26	25	36	33	47	62	70	48	38	21	40	25	40	25
Government	Action not in Control of Utility	36	21	39	79	53	49	70	85	65	67	49	27	49	27	65	27
Government	Refuse Action Cost Requested	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Government	Take Action Cost Requested	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Government	Government Total	36	21	39	79	53	49	70	85	65	67	49	27	49	27	65	27
Grand Total	Action not in Control of Utility	7	0	6	7	5	6	13	17	11	17	11	5	3	1	8	1
Grand Total	Refuse Action Cost Requested	5	3	5	3	4	2	8	8	8	5	7	10	9	7	10	9
Grand Total	Take Action Cost Requested	18	11	15	21	28	26	27	41	46	24	26	4	25	4	25	4
Grand Total	Grand Total	37	22	43	82	57	49	71	88	67	71	51	31	22	64	22	64

E. The Number and Percentage of Complaints Resolved by Taking the Following Actions:

Customer Type	MVA Action	Month												2018 Total			
		Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18				
Commercial	Action not in Control of Utility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial	Refuse Action Cost Requested	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial	Take Action Cost Requested	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Commercial	Commercial Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Industrial	Action not in Control of Utility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Industrial	Refuse Action Cost Requested	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Industrial	Take Action Cost Requested	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Industrial	Industrial Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Residential	Action not in Control of Utility	19.4%	0.0%	15.4%	8.9%	7.5%	12.2%	18.8%	15.4%	15.4%	10.5%	6.1%	4.5%	12.3%	4.5%	12.3%	4.5%
Residential	Refuse Action Cost Requested	12.3%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%
Residential	Take Action Cost Requested	47.2%	52.4%	41.0%	40.8%	41.2%	53.1%	39.2%	35.3%	34.6%	44.6%	50.7%	53.1%	27.3%	51.2%	27.3%	51.2%
Residential	Residential Total	19.4%	33.3%	30.8%	26.6%	26.6%	34.0%	30.6%	31.4%	30.6%	12.3%	20.0%	21.3%	25.4%	25.4%	25.4%	25.4%
Government	Action not in Control of Utility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Government	Refuse Action Cost Requested	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Government	Take Action Cost Requested	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Government	Government Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	Action not in Control of Utility	18.6%	0.0%	11.3%	6.6%	6.6%	12.2%	18.8%	15.4%	15.4%	10.5%	6.1%	4.5%	12.3%	4.5%	12.3%	4.5%
Total	Refuse Action Cost Requested	13.5%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%	15.4%
Total	Take Action Cost Requested	48.6%	50.0%	37.8%	38.5%	38.5%	53.1%	38.0%	32.7%	32.7%	42.7%	49.3%	52.9%	27.3%	49.5%	27.3%	49.5%
Total	Grand Total	18.9%	36.4%	35.0%	28.0%	28.0%	36.8%	30.6%	31.0%	30.6%	13.4%	21.6%	22.3%	26.7%	26.7%	26.7%	26.7%

**Minnesota Public Utilities Commission
 Consumer Affairs Office
 121-7th Place East
 St. Paul, MN 55101-2147**

7826.2000 REPORTING CUSTOMER COMPLAINTS
 For the period of January 01, 2018 to December 31, 2018

Name of Utility: Northern States Power Company
Address: 3115 Centre Pointe Drive, Roseville, MN 55113
Prepared by: Jeff Eden, Customer Advocate Analyst. Customer Care 303-294-2214

E. The Number of Complaints forwarded to the Utility by the Commission's Consumer Affairs Office for Further Investigation and Action

Count of Incident ID	Month													
	1	2	3	4	5	6	7	8	9	10	11	12	2018	
Customer Type	Source	1	2	3	4	5	6	7	8	9	10	11	12	2018
Commercial	Commission	1	1	2	0	2	0	0	1	2	2	0	0	11
Commercial Total		1	1	2	0	2	0	0	1	2	2	0	0	11
Residential	Commission	11	6	13	39	22	14	27	26	29	22	18	4	231
	Commission/Internal	0	0	0	2	0	0	0	0	0	0	0	0	2
	Commission/OAG	0	0	0	0	0	0	0	0	0	1	0	1	2
	Commission/Officer	0	0	0	0	0	0	0	1	0	0	0	0	1
Residential Total		11	6	13	41	22	14	27	27	29	23	18	5	236
Industrial	Commission	0	0	0	1	0	0	0	0	0	0	0	0	1
Industrial Total		0	0	0	1	0	0	0	0	0	0	0	0	1
Grand Total		12	7	15	42	24	14	27	28	31	25	18	5	248

**Customer Complaint Report
January, 2018**

**Turnaround Days for
Closing a Complaint
Longer
than 10
days**

	Agree	Compromise	Demonstrate	Refuse	Total	%	Initial Inquiry	within 10 days	Longer than 10 days
Commercial									
Billing errors	2,434	5	6	1	2,446	73.50%	2,442	4	0
Inaccurate Metering	1	0	0	0	1	0.03%	1	0	0
Wrongful Disconnect	242	3	1	0	246	7.39%	246	0	0
High Bill*	63	3	2	0	68	2.04%	66	2	0
Inadequate Service	382	2	4	0	388	11.66%	388	0	0
Service Extension	2	0	0	0	2	0.06%	2	0	0
Service Restoration	174	1	2	0	177	5.32%	177	0	0
Complaint	0	0	0	0	0	0.00%	0	0	0
Total Commercial	3,298	14	15	1	3,328		3,322	6	0
Total Commercial Percentage	99.10%	0.42%	0.45%	0.03%					
Industrial									
Billing errors	328	0	0	1	329	72.95%	326	3	0
Inaccurate Metering	0	0	0	0	0	0.00%	0	0	0
Wrongful Disconnect	22	1	0	0	23	5.10%	23	0	0
High Bill*	2	0	0	0	2	0.44%	2	0	0
Inadequate Service	52	0	1	0	53	11.75%	53	0	0
Service Extension	0	0	0	0	0	0.00%	0	0	0
Service Restoration	44	0	0	0	44	9.76%	44	0	0
Total Industrial	448	1	1	1	451		448	3	0
Total Industrial Percentage	99.33%	0.22%	0.22%	0.22%					
Residential									
Billing errors	23,025	109	119	4	23,257	47.36%	23,245	10	2
Inaccurate Metering	12	0	2	0	14	0.03%	14	0	0
Wrongful Disconnect	2,855	222	103	2	3,182	6.48%	3,180	1	1
High Bill*	1,157	7	27	0	1,191	2.43%	1,190	1	0
Inadequate Service	19,429	509	231	6	20,175	41.09%	20,167	8	0
Service Extension	5	0	0	0	5	0.01%	5	0	0
Service Restoration	1,246	14	17	1	1,278	2.60%	1,277	1	0
MR-Special Call Cntr	0	0	0	0	0	0.00%	0	0	0
Complaint	1	0	0	0	1	0.00%	0	1	0
Total Residential	47,730	861	499	13	49,103		49,078	22	3
Total Residential Percentage	97.20%	1.75%	1.02%	0.03%					
Total State of Minnesota	51,476	876	515	15	52,882		52,848	31	3
Total ST of MN Percentage	97.34%	1.66%	0.97%	0.03%					

* Includes all decoupling calls, complaints of which are reported annually in separate filing on February 1st.

**Customer Complaint Report
February, 2018**

	Agree	Compromise	Demonstrate	Refuse	Total	%	Turnaround Days for Closing a Complaint	
							Initial Inquiry	within 10 days
Commercial								
Billing errors	1,756	8	2	0	1,766	69.66%	1,755	10
Inaccurate Metering	4	0	0	0	4	0.16%	4	0
Wrongful Disconnect	173	2	4	0	179	7.06%	179	0
High Bill*	70	1	7	0	78	3.08%	77	1
Inadequate Service	368	7	0	0	375	14.79%	375	0
Service Extension	0	0	0	0	0	0.00%	0	0
Service Restoration	127	2	4	0	133	5.25%	133	0
Complaint	0	0	0	0	0	0.00%	0	0
Total Commercial	2,498	20	17	0	2,535		2,523	11
Total Commercial Percentage	98.54%	0.79%	0.67%	0.00%				
Industrial								
Billing errors	238	1	0	0	239	69.68%	236	1
Inaccurate Metering	0	0	0	0	0	0.00%	0	0
Wrongful Disconnect	22	1	0	0	23	6.71%	23	0
High Bill*	3	0	0	0	3	0.87%	3	0
Inadequate Service	33	2	0	0	35	10.20%	35	0
Service Extension	0	0	0	0	0	0.00%	0	0
Service Restoration	40	1	2	0	43	12.54%	43	0
Total Industrial	336	5	2	0	343		340	1
Total Industrial Percentage	97.96%	1.46%	0.58%	0.00%				
Residential								
Billing errors	19,365	135	91	7	19,598	46.10%	19,591	7
Inaccurate Metering	11	0	0	0	11	0.03%	11	0
Wrongful Disconnect	2,827	250	114	1	3,192	7.51%	3,192	0
High Bill*	865	5	34	0	904	2.13%	904	0
Inadequate Service	17,228	411	190	4	17,833	41.95%	17,827	6
Service Extension	10	0	3	0	13	0.03%	13	0
Service Restoration	929	9	17	1	956	2.25%	956	0
MR-Special Call Cntr	6	0	0	0	6	0.01%	0	4
Complaint	0	0	0	0	0	0.00%	0	0
Total Residential	41,241	810	449	13	42,513		42,494	17
Total Residential Percentage	97.01%	1.91%	1.06%	0.03%				
Total State of Minnesota	44,075	835	468	13	45,391		45,357	29
Total ST of MN Percentage	97.10%	1.84%	1.03%	0.03%				

* Includes Decoupling Complaints which are reported annually in separate filing on February 1st.

**Customer Complaint Report
March, 2018**

	Agree	Compromise	Demonstrate	Refuse	Total	%	Initial Inquiry	within 10 days	Longer than 10 days
Commercial									
Billing errors	1,903	11	5	0	1,919	68.27%	1,914	5	0
Inaccurate Metering	0	0	0	0	0	0.00%	0	0	0
Wrongful Disconnect	233	1	0	0	234	8.32%	233	1	0
High Bill*	53	2	1	0	56	1.99%	56	0	0
Inadequate Service	401	3	0	0	404	14.37%	404	0	0
Service Extension	0	0	0	0	0	0.00%	0	0	0
Service Restoration	194	2	2	0	198	7.04%	197	1	0
Complaint	0	0	0	0	0	0.00%	0	0	0
Total Commercial	2,784	19	8	0	2,811		2,804	7	0
Total Commercial Percentage	99.04%	0.68%	0.28%	0.00%					
Industrial									
Billing errors	230	0	0	0	230	62.67%	229	1	0
Inaccurate Metering	0	0	0	0	0	0.00%	0	0	0
Wrongful Disconnect	16	0	1	0	17	4.63%	17	0	0
High Bill*	3	0	0	0	3	0.82%	3	0	0
Inadequate Service	35	0	0	0	35	9.54%	35	0	0
Service Extension	0	0	0	0	0	0.00%	0	0	0
Service Restoration	82	0	0	0	82	22.34%	82	0	0
Total Industrial	366	0	1	0	367		366	1	0
Total Industrial Percentage	99.73%	0.00%	0.27%	0.00%					
Residential									
Billing errors	21,314	109	117	6	21,546	43.16%	21,535	11	0
Inaccurate Metering	12	1	2	0	15	0.03%	15	0	0
Wrongful Disconnect	4,130	224	109	4	4,467	8.95%	4,467	0	0
High Bill*	550	2	17	0	569	1.14%	569	0	0
Inadequate Service	21,082	349	211	4	21,646	43.36%	21,637	9	0
Service Extension	2	0	3	0	5	0.01%	5	0	0
Service Restoration	1,621	14	31	0	1,666	3.34%	1,665	1	0
MR-Special Call Cntr	4	0	0	0	4	0.01%	0	1	3
Complaint	1	0	0	0	1	0.00%	1	0	0
Total Residential	48,716	699	490	14	49,919		49,894	22	3
Total Residential Percentage	97.59%	1.40%	0.98%	0.03%					
Total State of Minnesota	51,866	718	499	14	53,097		53,064	30	3
Total ST of MN Percentage	97.68%	1.35%	0.94%	0.03%					

* Includes Decoupling Complaints which are reported annually in separate filing on February 1st.

**Customer Complaint Report
April, 2018**

	Agree	Compromise	Demonstrate	Refuse	Total	%	Turnaround Days for Closing a Complaint	
							Initial Inquiry	within 10 days
Commercial								
Billing errors	1,787	14	6	1	1,808	69.35%	1,801	7
Inaccurate Metering	1	0	0	0	1	0.04%	1	0
Wrongful Disconnect	231	4	1	0	236	9.05%	236	0
High Bill*	21	1	2	0	24	0.92%	24	0
Inadequate Service	321	9	3	0	333	12.77%	333	0
Service Extension	0	0	0	0	0	0.00%	0	0
Service Restoration	203	1	1	0	205	7.86%	205	0
Complaint	0	0	0	0	0	0.00%	0	0
Total Commercial	2,564	29	13	1	2,607		2,600	7
Total Commercial Percentage	98.35%	1.11%	0.50%	0.04%				
Industrial								
Billing errors	256	3	0	0	259	66.93%	258	1
Inaccurate Metering	0	1	0	0	1	0.26%	1	0
Wrongful Disconnect	25	0	0	0	25	6.46%	25	0
High Bill*	0	0	0	0	0	0.00%	0	0
Inadequate Service	38	2	0	0	40	10.34%	40	0
Service Extension	0	0	0	0	0	0.00%	0	0
Service Restoration	61	0	1	0	62	16.02%	62	0
Total Industrial	380	6	1	0	387		386	1
Total Industrial Percentage	98.19%	1.55%	0.26%	0.00%				
Residential								
Billing errors	21,361	79	126	10	21,576	37.00%	21,567	7
Inaccurate Metering	5	0	1	0	6	0.01%	6	0
Wrongful Disconnect	7,638	245	227	3	8,113	13.91%	8,112	1
High Bill*	252	2	9	0	263	0.45%	263	0
Inadequate Service	26,319	375	248	4	26,946	46.21%	26,937	7
Service Extension	8	1	0	0	9	0.02%	9	0
Service Restoration	1,360	9	26	1	1,396	2.39%	1,396	0
MR-Special Call Cntr	1	0	0	0	1	0.00%	0	1
Complaint	0	1	0	0	1	0.00%	1	0
Total Residential	56,944	712	637	18	58,311		58,291	16
Total Residential Percentage	97.66%	1.22%	1.09%	0.03%				
Total State of Minnesota	59,888	747	651	19	61,305		61,277	24
Total ST of MN Percentage	97.69%	1.22%	1.06%	0.03%				

* Includes Decoupling Complaints which are reported annually in separate filing on February 1st.

**Customer Complaint Report
May, 2018**

	Agree	Compromise	Demonstrate	Refuse	Total	%	Turnaround Days for Closing a Complaint		
							Initial Inquiry	within 10 days	Longer than 10 days
Commercial									
Billing errors	1,778	21	15	0	1,814	66.01%	1,804	8	2
Inaccurate Metering	0	0	0	0	0	0.00%	0	0	0
Wrongful Disconnect	216	7	3	0	226	8.22%	226	0	0
High Bill*	23	0	2	0	25	0.91%	25	0	0
Inadequate Service	305	8	1	0	314	11.43%	314	0	0
Service Extension	1	0	0	0	1	0.04%	1	0	0
Service Restoration	358	6	4	0	368	13.39%	368	0	0
Complaint	0	0	0	0	0	0.00%	0	0	0
Total Commercial	2,681	42	25	0	2,748		2,738	8	2
Total Commercial Percentage	97.56%	1.53%	0.91%	0.00%					
Industrial									
Billing errors	292	10	1	0	303	58.49%	299	4	0
Inaccurate Metering	0	0	0	0	0	0.00%	0	0	0
Wrongful Disconnect	23	0	0	0	23	4.44%	23	0	0
High Bill*	4	0	0	0	4	0.77%	4	0	0
Inadequate Service	46	1	0	0	47	9.07%	47	0	0
Service Extension	0	0	0	0	0	0.00%	0	0	0
Service Restoration	139	0	2	0	141	27.22%	141	0	0
Total Industrial	504	11	3	0	518		514	4	0
Total Industrial Percentage	97.30%	2.12%	0.58%	0.00%					
Residential									
Billing errors	23,507	98	111	4	23,720	41.30%	23,712	7	1
Inaccurate Metering	9	0	0	0	9	0.02%	9	0	0
Wrongful Disconnect	6,010	159	216	2	6,387	11.12%	6,385	2	0
High Bill*	253	0	10	0	263	0.46%	263	0	0
Inadequate Service	23,525	273	233	7	24,038	41.85%	24,031	5	2
Service Extension	16	1	6	0	23	0.04%	23	0	0
Service Restoration	2,891	28	66	2	2,987	5.20%	2,987	0	0
MR-Special Call Cntr	0	0	0	0	0	0.00%	0	0	0
Complaint	9	1	0	0	10	0.02%	4	6	0
Total Residential	56,220	560	642	15	57,437		57,414	20	3
Total Residential Percentage	97.88%	0.97%	1.12%	0.03%					
Total State of Minnesota	59,405	613	670	15	60,703		60,666	32	5
Total ST of MN Percentage	97.86%	1.01%	1.10%	0.02%					

* Includes Decoupling Complaints which are reported annually in separate filing on February 1st.

**Customer Complaint Report
June, 2018**

	Customer Complaint Report				Turnaround Days for Closing a Complaint		Longer than 10 days	
	Agree	Compromise	Demonstrate	Refuse	Total	%		Initial Inquiry
Commercial								
Billing errors	1,683	11	3	1	1,698	67.46%	1,690	7
Inaccurate Metering	1	0	0	0	1	0.04%	1	0
Wrongful Disconnect	194	1	0	0	195	7.75%	195	0
High Bill*	26	0	1	0	27	1.07%	27	0
Inadequate Service	281	3	3	0	287	11.40%	285	2
Service Extension	0	1	0	0	1	0.04%	1	0
Service Restoration	295	2	11	0	308	12.24%	307	1
Complaint	0	0	0	0	0	0.00%	0	0
Total Commercial	2,480	18	18	1	2,517		2,506	10
Total Commercial Percentage	98.53%	0.72%	0.72%	0.04%				
Industrial								
Billing errors	247	2	0	0	249	56.33%	248	1
Inaccurate Metering	0	0	0	0	0	0.00%	0	0
Wrongful Disconnect	16	0	0	0	16	3.62%	16	0
High Bill*	3	0	1	0	4	0.90%	4	0
Inadequate Service	30	1	0	0	31	7.01%	31	0
Service Extension	1	0	0	0	1	0.23%	1	0
Service Restoration	133	0	8	0	141	31.90%	141	0
Total Industrial	430	3	9	0	442		441	1
Total Industrial Percentage	97.29%	0.68%	2.04%	0.00%				
Residential								
Billing errors	22,495	116	124	5	22,740	41.54%	22,734	6
Inaccurate Metering	12	0	0	0	12	0.02%	12	0
Wrongful Disconnect	5,179	118	127	0	5,424	9.91%	5,423	1
High Bill*	563	3	8	0	574	1.05%	574	0
Inadequate Service	22,360	334	226	3	22,923	41.87%	22,912	9
Service Extension	22	1	0	0	23	0.04%	23	0
Service Restoration	2,933	26	80	1	3,040	5.55%	3,039	1
MR-Special Call Cntr	3	0	0	0	3	0.01%	0	3
Complaint	5	0	0	0	5	0.01%	2	3
Total Residential	53,572	598	565	9	54,744		54,719	23
Total Residential Percentage	97.86%	1.09%	1.03%	0.02%				
Total State of Minnesota	56,482	619	592	10	57,703		57,666	34
Total ST of MN Percentage	97.88%	1.07%	1.03%	0.02%				

* Includes Decoupling Complaints which are reported annually in separate filing on February 1st.

**Customer Complaint Report
July, 2018**

**Turnaround Days for
Closing a Complaint
Longer
than 10
days**

	Agree	Compromise	Demonstrate	Refuse	Total	%	Initial Inquiry	within 10 days	Longer than 10 days
Commercial									
Billing errors	1,504	29	10	0	1,543	67.06%	1,538	5	0
Inaccurate Metering	7	1	0	0	8	0.35%	8	0	0
Wrongful Disconnect	153	1	1	0	155	6.74%	155	0	0
High Bill*	49	0	3	0	52	2.26%	52	0	0
Inadequate Service	225	10	1	0	236	10.26%	236	0	0
Service Extension	0	0	0	0	0	0.00%	0	0	0
Service Restoration	300	3	3	0	306	13.30%	305	1	0
Complaint	1	0	0	0	1	0.04%	1	0	0
Total Commercial	2,239	44	18	0	2,301		2,295	6	0
Total Commercial Percentage	97.31%	1.91%	0.78%	0.00%					
Industrial									
Billing errors	273	5	3	0	281	55.75%	280	1	0
Inaccurate Metering	0	0	1	0	1	0.20%	1	0	0
Wrongful Disconnect	41	0	0	0	41	8.13%	41	0	0
High Bill*	6	0	0	0	6	1.19%	6	0	0
Inadequate Service	33	2	0	0	35	6.94%	35	0	0
Service Extension	0	0	0	0	0	0.00%	0	0	0
Service Restoration	134	3	3	0	140	27.78%	140	0	0
Total Industrial	487	10	7	0	504		503	1	0
Total Industrial Percentage	96.63%	1.98%	1.39%	0.00%					
Residential									
Billing errors	22,323	160	167	11	22,661	44.16%	22,649	12	0
Inaccurate Metering	21	0	3	0	24	0.05%	24	0	0
Wrongful Disconnect	3,761	63	117	3	3,944	7.69%	3,943	1	0
High Bill*	1,067	12	21	0	1,100	2.14%	1,099	1	0
Inadequate Service	19,969	278	230	10	20,487	39.92%	20,468	18	1
Service Extension	19	1	5	0	25	0.05%	25	0	0
Service Restoration	2,976	29	57	0	3,062	5.97%	3,059	3	0
MR-Special Call Cntr	1	0	0	0	1	0.00%	0	1	0
Complaint	7	3	1	0	11	0.02%	8	3	0
Total Residential	50,144	546	601	24	51,315		51,275	39	1
Total Residential Percentage	97.72%	1.06%	1.17%	0.05%					
Total State of Minnesota	52,870	600	626	24	54,120		54,073	46	1
Total ST of MN Percentage	97.69%	1.11%	1.16%	0.04%					

* Includes Decoupling Complaints which are reported annually in separate filing on February 1st.

**Customer Complaint Report
August, 2018**

	Agree	Compromise	Demonstrate	Refuse	Total	%	Turnaround Days for Closing a Complaint	
							Initial Inquiry	within 10 days
Commercial								
Billing errors	1,629	14	7	0	1,650	67.05%	1,640	9
Inaccurate Metering	4	0	0	0	4	0.16%	4	0
Wrongful Disconnect	167	2	0	0	169	6.87%	168	1
High Bill*	37	1	6	0	44	1.79%	44	0
Inadequate Service	276	4	1	0	281	11.42%	281	0
Service Extension	0	0	0	0	0	0.00%	0	0
Service Restoration	307	3	3	0	313	12.72%	313	0
Complaint	0	0	0	0	0	0.00%	0	0
Total Commercial	2,420	24	17	0	2,461		2,450	10
Total Commercial Percentage	98.33%	0.98%	0.69%	0.00%				1
Industrial								
Billing errors	287	2	0	0	289	59.59%	289	0
Inaccurate Metering	0	0	0	0	0	0.00%	0	0
Wrongful Disconnect	15	0	0	0	15	3.09%	15	0
High Bill*	2	0	2	0	4	0.82%	4	0
Inadequate Service	41	0	0	0	41	8.45%	41	0
Service Extension	0	0	0	0	0	0.00%	0	0
Service Restoration	133	1	2	0	136	28.04%	136	0
Total Industrial	478	3	4	0	485		485	0
Total Industrial Percentage	98.56%	0.62%	0.82%	0.00%				0
Residential								
Billing errors	24,208	98	159	8	24,473	45.08%	24,466	7
Inaccurate Metering	23	0	0	0	23	0.04%	23	0
Wrongful Disconnect	5,479	109	152	4	5,744	10.58%	5,744	0
High Bill*	1,018	7	22	0	1,047	1.93%	1,047	0
Inadequate Service	20,194	222	185	8	20,609	37.96%	20,596	12
Service Extension	20	2	5	0	27	0.05%	27	0
Service Restoration	2,294	12	49	1	2,356	4.34%	2,355	1
MR-Special Call Cntr	0	0	0	0	0	0.00%	0	0
Complaint	6	2	0	0	8	0.01%	3	5
Total Residential	53,242	452	572	21	54,287		54,261	25
Total Residential Percentage	98.08%	0.83%	1.05%	0.04%				1
Total State of Minnesota	56,140	479	593	21	57,233		57,196	35
Total ST of MN Percentage	98.09%	0.84%	1.04%	0.04%				2

* Includes Decoupling Complaints which are reported annually in separate filing on February 1st.

**Customer Complaint Report
September, 2018**

	Agree	Compromise	Demonstrate	Refuse	Total	%	Turnaround Days for Closing a Complaint	
							Initial Inquiry	within 10 days
Commercial								
Billing errors	1,699	6	4	0	1,709	73.25%	1,707	2
Inaccurate Metering	1	0	0	0	1	0.04%	1	0
Wrongful Disconnect	120	4	1	0	125	5.36%	125	0
High Bill*	29	0	2	0	31	1.33%	31	0
Inadequate Service	202	5	6	0	213	9.13%	213	0
Service Extension	0	0	0	0	0	0.00%	0	0
Service Restoration	250	3	1	0	254	10.89%	254	0
Complaint	0	0	0	0	0	0.00%	0	0
Total Commercial	2,301	18	14	0	2,333		2,331	2
Total Commercial Percentage	98.63%	0.77%	0.60%	0.00%				
Industrial								
Billing errors	271	1	2	0	274	66.50%	270	4
Inaccurate Metering	0	0	1	0	1	0.24%	1	0
Wrongful Disconnect	11	1	0	0	12	2.91%	12	0
High Bill*	2	1	0	0	3	0.73%	3	0
Inadequate Service	23	0	0	0	23	5.58%	23	0
Service Extension	0	0	0	0	0	0.00%	0	0
Service Restoration	97	1	1	0	99	24.03%	99	0
Total Industrial	404	4	4	0	412		408	4
Total Industrial Percentage	98.06%	0.97%	0.97%	0.00%				
Residential								
Billing errors	19,376	61	125	15	19,577	43.92%	19,571	6
Inaccurate Metering	27	0	0	0	27	0.06%	27	0
Wrongful Disconnect	4,864	73	192	3	5,132	11.51%	5,130	2
High Bill*	523	2	18	0	543	1.22%	543	0
Inadequate Service	16,941	139	175	6	17,261	38.73%	17,250	10
Service Extension	24	1	2	0	27	0.06%	27	0
Service Restoration	1,953	9	39	0	2,001	4.49%	2,001	0
MR-Special Call Cntr	1	0	0	0	1	0.00%	0	1
Complaint	3	0	1	0	4	0.01%	2	2
Total Residential	43,712	285	552	24	44,573		44,551	21
Total Residential Percentage	98.07%	0.64%	1.24%	0.05%				
Total State of Minnesota	46,417	307	570	24	47,318		47,290	27
Total ST of MN Percentage	98.10%	0.65%	1.20%	0.05%				

* Includes Decoupling Complaints which are reported annually in separate filing on February 1st.

**Customer Complaint Report
October, 2018**

	Agree	Compromise	Demonstrate	Refuse	Total	%	Turnaround Days for Closing a Complaint	
							Initial Inquiry	within 10 days
Commercial								
Billing errors	1,592	12	6	2	1,612	69.39%	1,604	7
Inaccurate Metering	26	0	0	0	26	1.12%	26	0
Wrongful Disconnect	171	4	0	0	175	7.53%	175	0
High Bill*	28	1	0	0	29	1.25%	28	1
Inadequate Service	255	6	6	0	267	11.49%	266	1
Service Extension	0	0	1	0	1	0.04%	1	0
Service Restoration	209	3	1	0	213	9.17%	213	0
Complaint	0	0	0	0	0	0.00%	0	0
Total Commercial	2,281	26	14	2	2,323		2,313	9
Total Commercial Percentage	98.19%	1.12%	0.60%	0.09%				1
Industrial								
Billing errors	245	1	0	0	246	64.57%	243	3
Inaccurate Metering	3	0	0	0	3	0.79%	2	1
Wrongful Disconnect	22	0	0	0	22	5.77%	22	0
High Bill*	0	0	0	0	0	0.00%	0	0
Inadequate Service	37	0	2	0	39	10.24%	39	0
Service Extension	0	0	0	0	0	0.00%	0	0
Service Restoration	71	0	0	0	71	18.64%	71	0
Total Industrial	378	1	2	0	381		377	4
Total Industrial Percentage	99.21%	0.26%	0.52%	0.00%				0
Residential								
Billing errors	21,199	62	139	9	21,409	46.36%	21,405	4
Inaccurate Metering	73	0	1	1	75	0.16%	73	2
Wrongful Disconnect	4,286	87	203	1	4,577	9.91%	4,574	3
High Bill*	531	0	28	1	560	1.21%	559	1
Inadequate Service	17,458	150	199	7	17,814	38.57%	17,810	4
Service Extension	12	0	4	0	16	0.03%	16	0
Service Restoration	1,695	11	24	1	1,731	3.75%	1,731	0
MR-Special Call Cntr	0	0	0	0	0	0.00%	0	0
Complaint	2	0	0	0	2	0.00%	1	1
Total Residential	45,256	310	598	20	46,184		46,169	15
Total Residential Percentage	97.99%	0.67%	1.29%	0.04%				0
Total State of Minnesota	47,915	337	614	22	48,888		48,859	28
Total ST of MN Percentage	98.01%	0.69%	1.26%	0.05%				1

* Includes Decoupling Complaints which are reported annually in separate filing on February 1st.

**Customer Complaint Report
November, 2018**

	Agree	Compromise	Demonstrate	Refuse	Total	%	Initial Inquiry	within 10 days	Longer than 10 days
Commercial									
Billing errors	1,403	11	6	0	1,420	65.83%	1,414	5	1
Inaccurate Metering	48	0	0	0	48	2.23%	47	1	0
Wrongful Disconnect	204	7	1	0	212	9.83%	212	0	0
High Bill*	20	1	2	0	23	1.07%	23	0	0
Inadequate Service	289	2	1	0	292	13.54%	291	1	0
Service Extension	0	0	0	0	0	0.00%	0	0	0
Service Restoration	159	2	1	0	162	7.51%	161	1	0
Complaint	0	0	0	0	0	0.00%	0	0	0
Total Commercial	2,123	23	11	0	2,157		2,148	8	1
Total Commercial Percentage	98.42%	1.07%	0.51%	0.00%					
Industrial									
Billing errors	230	8	2	0	240	70.80%	240	0	0
Inaccurate Metering	3	0	0	0	3	0.88%	3	0	0
Wrongful Disconnect	17	0	0	0	17	5.01%	17	0	0
High Bill*	1	0	0	0	1	0.29%	1	0	0
Inadequate Service	36	0	0	0	36	10.62%	36	0	0
Service Extension	0	0	0	0	0	0.00%	0	0	0
Service Restoration	40	1	1	0	42	12.39%	42	0	0
Total Industrial	327	9	3	0	339		339	0	0
Total Industrial Percentage	96.46%	2.65%	0.88%	0.00%					
Residential									
Billing errors	17,912	45	98	5	18,060	46.46%	18,054	6	0
Inaccurate Metering	77	0	0	0	77	0.20%	77	0	0
Wrongful Disconnect	3,118	63	135	1	3,317	8.53%	3,317	0	0
High Bill*	343	1	21	0	365	0.94%	365	0	0
Inadequate Service	15,915	155	199	6	16,275	41.87%	16,271	4	0
Service Extension	1	0	4	0	5	0.01%	5	0	0
Service Restoration	752	7	13	1	773	1.99%	773	0	0
MR-Special Call Cntr	0	0	0	0	0	0.00%	0	0	0
Complaint	2	0	0	0	2	0.01%	2	0	0
Total Residential	38,120	271	470	13	38,874		38,864	10	0
Total Residential Percentage	98.06%	0.70%	1.21%	0.03%					
Total State of Minnesota	40,570	303	484	13	41,370		41,351	18	1
Total ST of MN Percentage	98.07%	0.73%	1.17%	0.03%					

* Includes Decoupling Complaints which are reported annually in separate filing on February 1st.

**Customer Complaint Report
December, 2018**

	Customer Complaint Report				Turnaround Days for Closing a Complaint		Longer than 10 days	
	Agree	Compromise	Demonstrate	Refuse	Total	%		Initial Inquiry
Commercial								
Billing errors	1,278	6	4	0	1,288	67.93%	1,286	2
Inaccurate Metering	18	0	0	0	18	0.95%	18	0
Wrongful Disconnect	162	3	0	0	165	8.70%	165	0
High Bill*	38	2	2	0	42	2.22%	42	0
Inadequate Service	264	2	3	0	269	14.19%	268	1
Service Extension	0	0	0	0	0	0.00%	0	0
Service Restoration	111	2	1	0	114	6.01%	113	1
Complaint	0	0	0	0	0	0.00%	0	0
Total Commercial	1,871	15	10	0	1,896		1,892	4
Total Commercial Percentage	98.68%	0.79%	0.53%	0.00%				
Industrial								
Billing errors	195	1	0	2	198	73.06%	197	1
Inaccurate Metering	7	0	0	0	7	2.58%	7	0
Wrongful Disconnect	23	0	0	0	23	8.49%	23	0
High Bill*	3	0	0	0	3	1.11%	3	0
Inadequate Service	19	0	0	0	19	7.01%	19	0
Service Extension	0	0	0	0	0	0.00%	0	0
Service Restoration	21	0	0	0	21	7.75%	21	0
Total Industrial	268	1	0	2	271		270	1
Total Industrial Percentage	98.89%	0.37%	0.00%	0.74%				
Residential								
Billing errors	15,719	39	105	11	15,874	37.60%	15,860	14
Inaccurate Metering	39	0	2	0	41	0.10%	41	0
Wrongful Disconnect	961	9	19	0	989	2.34%	989	0
High Bill*	739	8	34	1	782	1.85%	782	0
Inadequate Service	23,626	127	115	2	23,870	56.53%	23,859	11
Service Extension	2	0	1	0	3	0.01%	3	0
Service Restoration	649	4	10	0	663	1.57%	662	1
MR-Special Call Cntr	0	0	0	0	0	0.00%	0	0
Complaint	0	0	0	0	0	0.00%	0	0
Total Residential	41,735	187	286	14	42,222		42,196	26
Total Residential Percentage	98.85%	0.44%	0.68%	0.03%				
Total State of Minnesota	43,874	203	296	16	44,389		44,358	31
Total ST of MN Percentage	98.84%	0.46%	0.67%	0.04%				

* Includes Decoupling Complaints which are reported annually in separate filing on February 1st.

Metro East		2014	2015	2016	2017	2018	5 Year Avg (CAIDI using SAIDI/SAIFI) Proposed Standards for
							2019
	SAIFI	0.86	0.90	0.87	0.76	0.93	0.86
	CAIDI	92.46	104.25	109.70	100.48	111.74	103.94
	SAIDI	79.73	93.73	95.52	76.22	103.69	89.78

Metro West		2014	2015	2016	2017	2018	Proposed Standards for
							2019
	SAIFI	0.84	0.84	0.82	0.71	0.87	0.82
	CAIDI	98.50	108.44	101.43	97.84	95.47	100.37
	SAIDI	83.02	90.95	83.64	69.51	83.26	82.08

Northwest		2014	2015	2016	2017	2018	Proposed Standards for
							2019
	SAIFI	0.82	0.66	0.70	0.76	0.87	0.76
	CAIDI	101.02	115.39	122.38	100.28	126.05	113.01
	SAIDI	82.80	75.58	85.81	75.77	109.34	85.86

Southeast		2014	2015	2016	2017	2018	Proposed Standards for
							2019*
	SAIFI	0.80	0.75	0.85	0.84	0.92	0.76
	CAIDI	129.20	115.16	130.02	114.73	129.64	122.04
	SAIDI	103.45	86.51	110.23	96.33	118.80	94.82

Notes:
 Normalized data calculated using the 2.5 beta method outlined in IEEE 1366-2012
 Each year's calculations use storm day thresholds based on the prior five years of outage history.
 SD Divisional feeders serving Minnesota customers are included in Southeast region
 ND Divisional feeders serving Minnesota customers are included in Northwest region

The 2019 Southeast proposed standards above are consistent with those approved by the Commission in Docket No E002/M-18-239 for 2018 performance:

- 2019 Proposed SE SAIDI & SAIFI standard is locked at 2017 level
- 2019 Proposed SE CAIDI standard is locked at 2018 level

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- Required Xcel to augment its next filing to include a description of the policies, procedures and actions that it has implemented, and plans to implement, to assure reliability, including information on how it is demonstrating pro-active management of the system as a whole, increased reliability, and active contingency planning
- Required Xcel to incorporate into its next filing a summary table that allows the reader to more easily assess the overall reliability of the system and identify the main factors that affect reliability.
- Required Xcel to provide more discussion of leading causes of outages and mitigation strategies.

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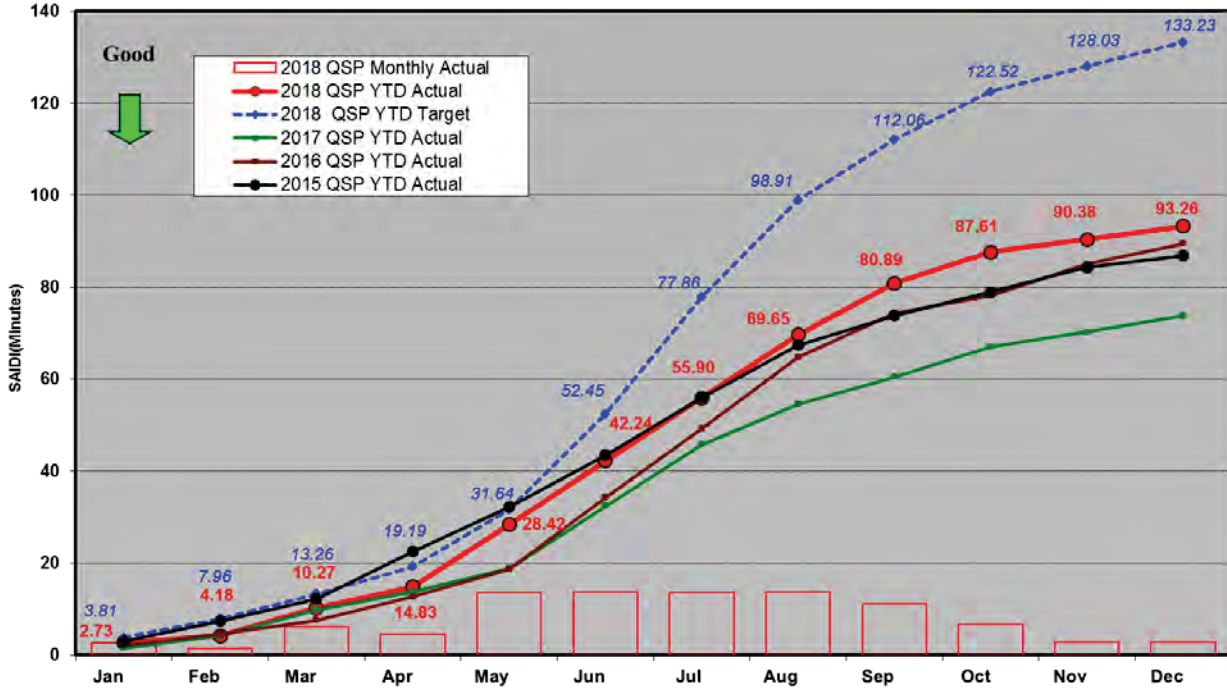
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MINNESOTA QSP SAIDI - YTD (Tariff Method/Threshold) (Excluding Transmission Line level, Including All Causes)

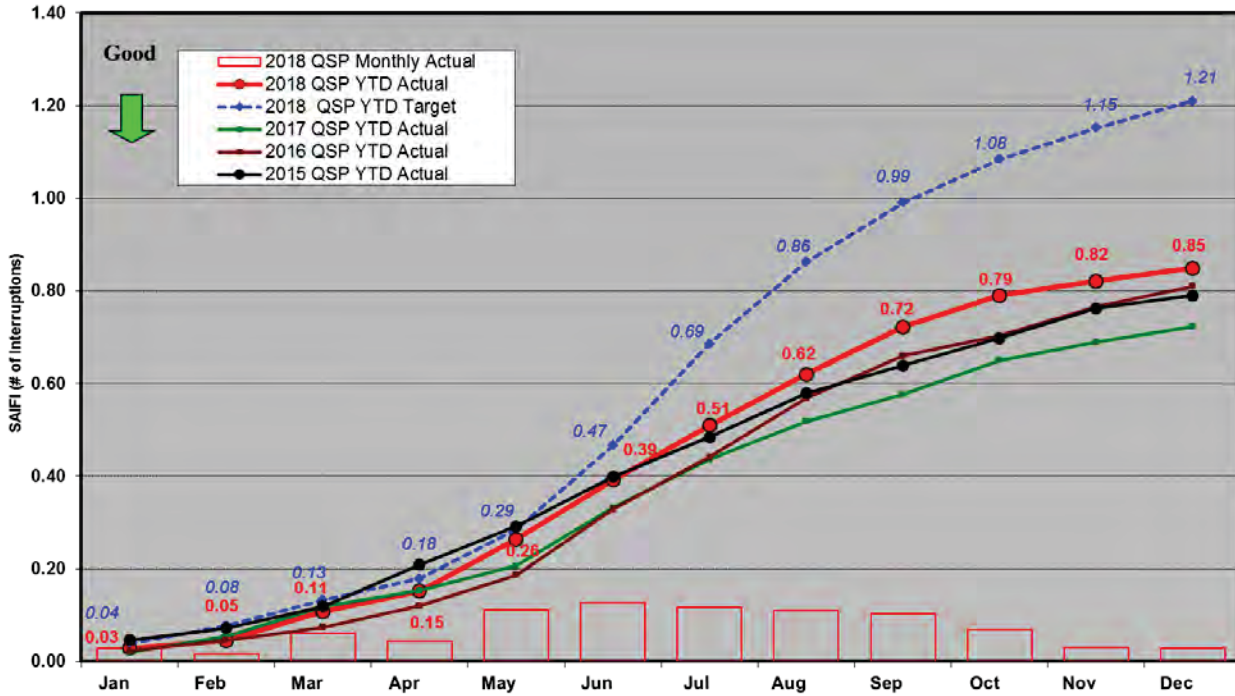


IEEE Normalized by Region after excluding Transmission Line level
Based on sustained outages only (>5 minutes), excluding Transmission Line level, including all Causes, Meter-based customer counts

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MINNESOTA QSP SAIFI - YTD (Tariff Method/Threshold) (Excluding Transmission Line level, Including All Causes)



IEEE Normalized by Region after excluding Transmission Line level
Based on sustained outages only (>5 minutes), excluding Transmission Line level, including all Causes, Meter-based customer counts

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Historical Reliability Indices & Storm Day Exclusions											
With Storms¹		2010	2011	2012	2013	2014	2015	2016	2017	2018	
Minnesota	SAIDI	274.42	207.77	149.15	562.11	116.43	184.50	214.39	141.70	125.00	
	SAIFI	1.50	1.11	1.07	1.39	0.92	0.96	1.05	0.90	0.95	
	CAIDI	183.43	187.11	139.51	404.36	126.00	192.32	204.84	158.10	131.22	
Metro East	SAIDI	270.43	113.90	190.95	352.30	123.54	177.19	223.67	136.51	112.11	
	SAIFI	1.59	0.96	1.20	1.27	0.98	1.04	1.08	0.95	0.96	
	CAIDI	170.23	118.95	159.23	278.46	125.93	169.86	206.85	144.37	116.71	
Metro West	SAIDI	301.09	238.03	139.19	810.01	105.98	229.78	198.25	148.58	88.23	
	SAIFI	1.54	1.19	1.10	1.55	0.89	1.00	1.00	0.86	0.92	
	CAIDI	196.10	199.66	126.85	523.66	118.70	229.92	198.86	173.27	95.70	
Northwest⁴	SAIDI	181.38	470.05	109.75	468.22	82.82	75.61	225.74	173.71	109.50	
	SAIFI	1.26	1.40	0.87	1.40	0.82	0.66	1.07	0.98	0.87	
	CAIDI	143.66	334.78	126.17	335.53	101.00	115.40	211.50	177.46	126.02	
Southeast⁵	SAIDI	251.24	125.28	97.25	179.29	173.45	98.23	249.05	96.37	353.32	
	SAIFI	1.24	0.95	0.71	1.06	0.98	0.79	1.15	1.15	1.15	
	CAIDI	203.04	131.69	137.84	168.93	176.51	125.07	217.15	114.75	307.95	
MN Tariff²		2010	2011	2012	2013	2014	2015	2016	2017	2018	'18 Target
Minnesota	SAIDI	110.83	83.87	96.20	91.12	79.85	86.83	89.49	73.80	93.26	133.23
	SAIFI	1.12	0.82	0.88	0.86	0.78	0.79	0.81	0.72	0.85	1.21
	CAIDI	99.24	102.08	109.60	106.51	102.07	109.90	110.54	102.10	109.90	NA
Metro East	SAIDI	102.03	79.34	90.70	83.56	77.58	93.71	95.49	75.70	103.28	
	SAIFI	1.20	0.83	0.88	0.83	0.82	0.90	0.87	0.75	0.92	
	CAIDI	85.09	96.00	103.35	100.72	94.81	104.58	110.07	100.79	112.40	
	MED Days	4 6/25,7/17, 10/26,11/13	2 7/1,7/10	5 6/10,6/19,7/3, 8/3,11/10	3 6/21,6/22, 6/23	3 2/20,6/14,6/16	2 7/12, 7/18	3 7/5,7/6,7/21	3 6/11, 6/14, 7/12	1 5/24	
Metro West	SAIDI	123.25	88.20	103.42	101.24	81.85	88.98	82.90	69.28	81.25	
	SAIFI	1.22	0.87	0.97	0.96	0.82	0.82	0.82	0.70	0.84	
	CAIDI	101.10	101.09	106.83	105.85	100.15	108.90	101.51	98.40	96.63	
	MED Days	4 6/25,7/17, 10/26,11/13	5 5/22,7/1,7/10, 7/18,8/1	3 2/29,6/19,8/3	5 6/21,6/22, 6/23,6/24,8/6	1 6/14	1 7/18	3 7/5,7/6,7/21	2 6/11, 6/14	1 7/1	
Northwest⁴	SAIDI	102.79	79.42	94.20	85.78	62.16	69.39	80.19	69.41	99.87	
	SAIFI	0.80	0.69	0.73	0.75	0.61	0.57	0.56	0.64	0.73	
	CAIDI	129.28	115.38	128.31	113.87	102.05	121.05	143.58	107.70	137.06	
	MED Days	2 8/13,10/26	6 2/20,5/30,7/1,7 /10,8/1,8/2	0 None	2 6/21,6/22	0 None	0 None	4 5/19,6/19,7/5, 11/18	1 6/11	0 None	
Southeast⁵	SAIDI	89.58	82.70	82.40	73.58	94.45	70.78	109.59	92.84	110.67	
	SAIFI	0.69	0.70	0.59	0.57	0.67	0.52	0.82	0.79	0.77	
	CAIDI	130.66	118.72	138.48	129.93	141.93	135.23	133.06	117.19	144.04	
	MED Days	5 6/25,6/26,7/24, 8/13,11/13	2 7/1,7/23	1 8/4	4 4/9,5/2,5/26, 6/21	4 2/20,6/16,8/4, 12/15	1 7/18	3 6/10,7/5,7/6	0 None	2 4/14,9/20	

Annual Rules ³		2010	2011	2012	2013	2014	2015	2016	2017	2018	'18 Target
Minnesota	SAIDI	113.86	88.17	101.86	94.27	84.00	89.95	90.45	75.04	96.07	NA
	SAIFI	1.17	0.88	0.93	0.90	0.84	0.83	0.83	0.74	0.89	NA
	CAIDI	97.31	100.53	109.78	104.60	99.67	108.09	108.93	100.90	107.39	NA
Metro East	SAIDI	102.32	79.89	105.74	85.05	79.73	93.73	95.52	76.22	103.69	86.05
	SAIFI	1.22	0.85	0.96	0.86	0.86	0.90	0.87	0.76	0.93	0.85
	CAIDI	83.90	93.83	110.03	99.33	92.46	104.25	109.70	100.48	111.74	101.31
	Storm Days	4 6/25,7/17,10/26,11/13	2 7/1,7/10	3 6/10,6/19,11/10	3 6/21,6/22,6/23	3 2/20,6/14,6/16	2 7/12,7/18	3 7/5,7/6,7/21	3 6/11,6/14,7/12	1 5/24	
Metro West	SAIDI	123.21	89.74	103.98	101.41	83.02	90.95	83.64	69.51	83.26	85.71
	SAIFI	1.22	0.90	0.98	0.96	0.84	0.84	0.82	0.71	0.87	0.84
	CAIDI	101.09	99.56	105.93	105.45	98.50	108.44	101.43	97.84	95.47	102.56
	Storm Days	4 6/25,7/17,10/26,11/13	5 5/22,7/1,7/10,7/18,8/1	3 2/29,6/19,8/3	5 6/21,6/22,6/23,6/24,8/6	1 6/14	1 7/18	3 7/5,7/6,7/21	2 6/11,6/14	1 7/1	
Northwest ⁴	SAIDI	110.59	94.29	95.05	97.43	82.80	75.58	85.81	75.77	109.34	83.48
	SAIFI	0.96	0.82	0.83	0.94	0.82	0.66	0.70	0.76	0.87	0.77
	CAIDI	114.86	115.31	115.16	103.70	101.02	115.39	122.38	100.28	126.05	107.83
	Storm Days	2 8/13,10/26	6 2/20,5/30,7/1,7/10,8/1,8/2	1 6/17	2 6/21,6/22	0 None	0 None	5 5/19,6/19,7/5,7/16,11/18	1 6/11	0 None	
Southeast ⁵	SAIDI	111.00	101.86	85.95	87.98	103.45	86.51	110.23	96.33	118.80	96.90
	SAIFI	0.98	0.90	0.67	0.73	0.80	0.75	0.85	0.84	0.92	0.79
	CAIDI	112.90	112.82	128.50	120.39	129.20	115.16	130.02	114.73	129.64	122.04
	Storm Days	5 5/11,6/25,6/26,7/24,11/13	1 7/1	1 8/4	4 4/9,5/2,5/26,6/21	4 2/20,6/16,8/4,12/15	1 7/18	3 6/10,7/5,7/6	0 None	2 4/14,9/20	

- 1) **With Storms** - Includes All Days, Levels and Causes, Meter-based customer counts
- 2) **MN Tariff** - Normalized using IEEE 1366 at the Regional level after removing Transmission Line level. All Causes, Meter-based customer counts
- 3) **Annual Rules** - Normalized using IEEE 1366 at the Regional level, All Levels, All Causes, Meter-based customer counts
 - Targets for recalculated New Annual Rules were determined for 2015-present due to the need for 5 years of prior historical actual results
- 4) **Northwest** - Includes customers counts and outages in the North Dakota work region that impact Minnesota customers
- 5) **Southeast** - Includes customers counts and outages in the South Dakota work region that impact Minnesota customers

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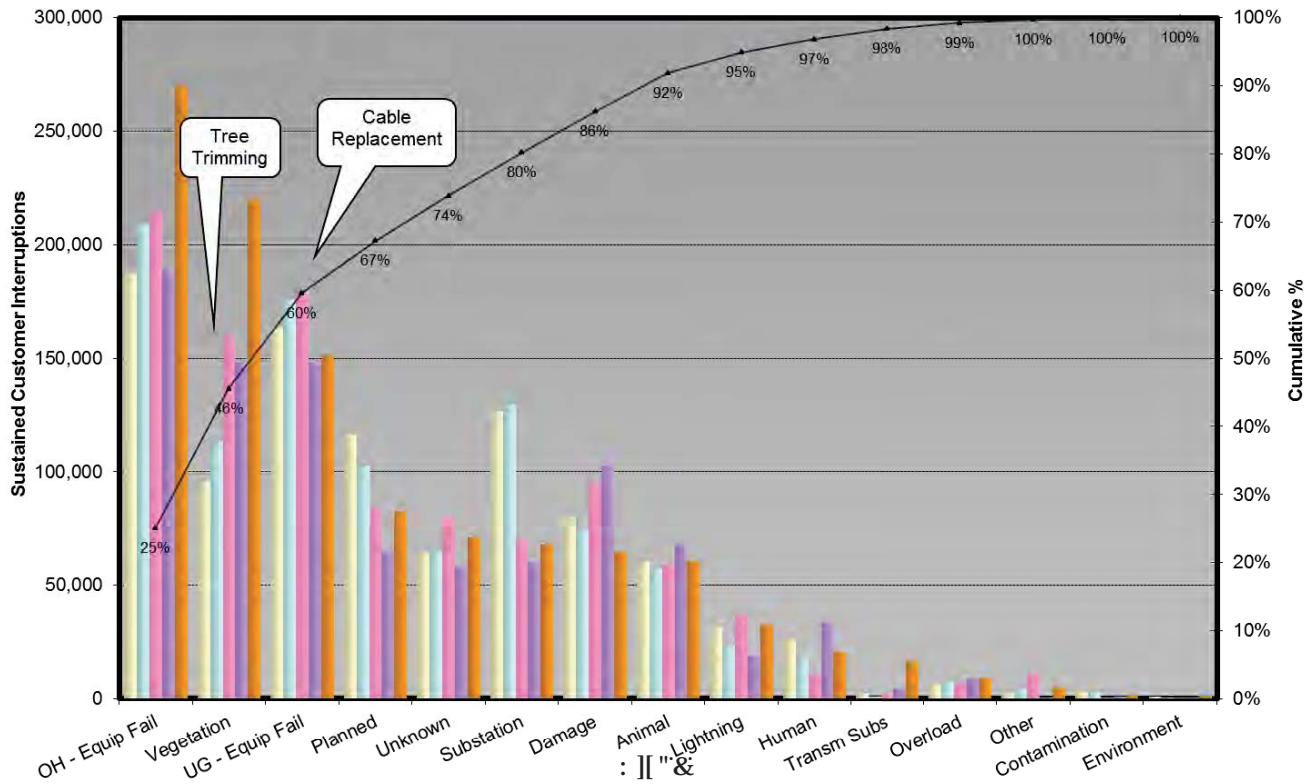
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**Minnesota Customer Interruptions By Primary Cause - (Tariff Method/Threshold)
 Distribution, Substation, & Transmission Level - By Calendar Year**



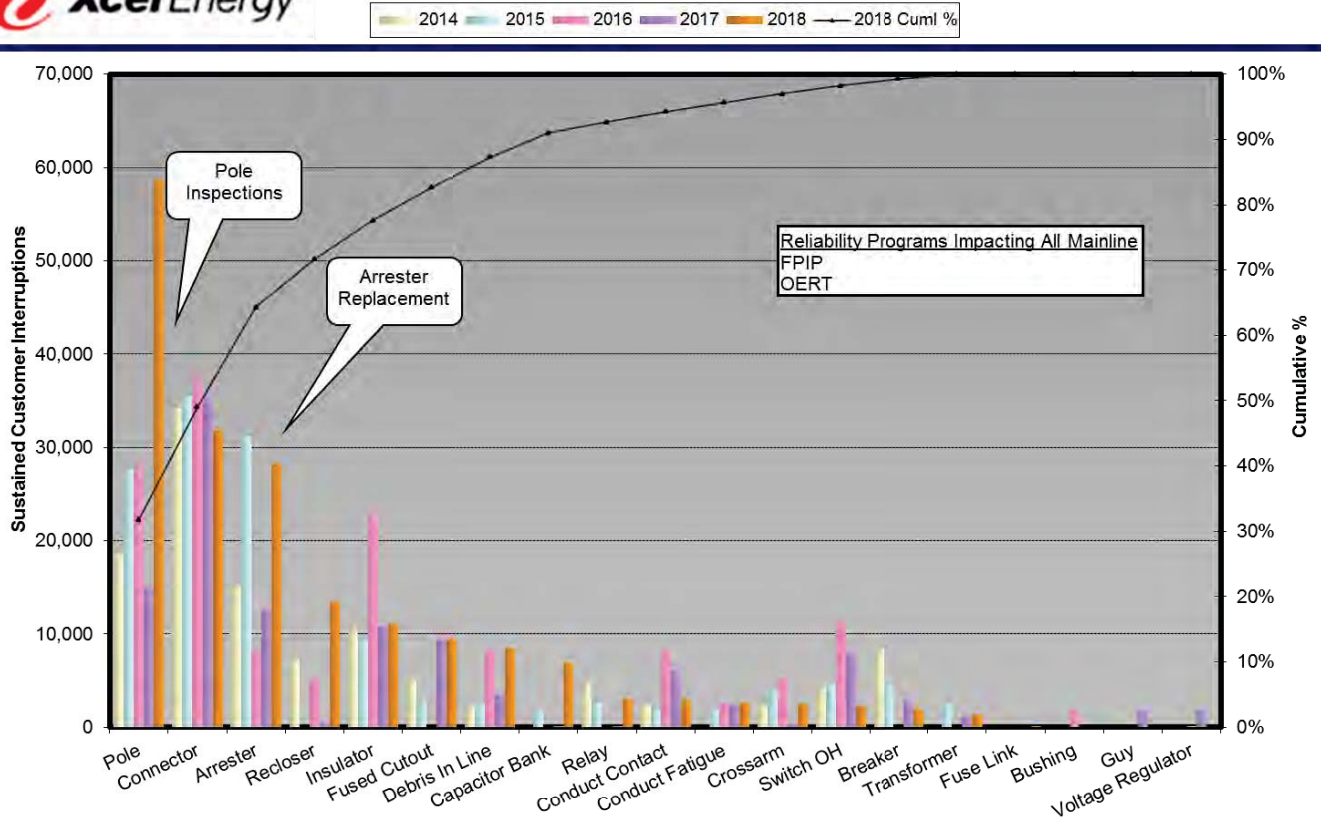
2014 2015 2016 2017 2018 2018 Cuml %



Tariff Method: IEEE 1366 Normalized by Region after excluding Transmission Line level, Meter-based customer counts.

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Minnesota Customer Interruptions By Failed Device - (Tariff Method/Threshold) Overhead Mainline - By Calendar Year



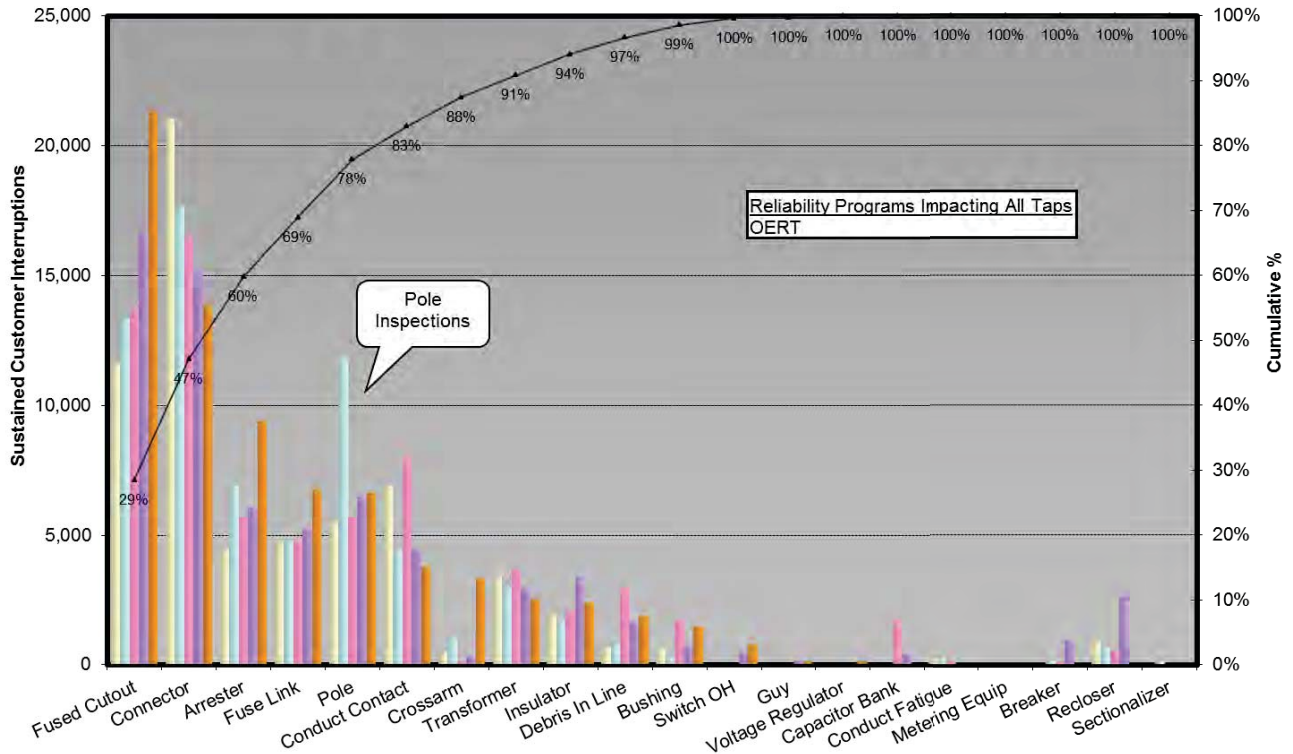
Tariff Method: IEEE 1366 Normalized by Region after excluding Transmission Line level, Meter-based customer counts.

; fUA)

Minnesota Customer Interruptions By Failed Device - (Tariff Method/Threshold) Overhead Tap - By Calendar Year



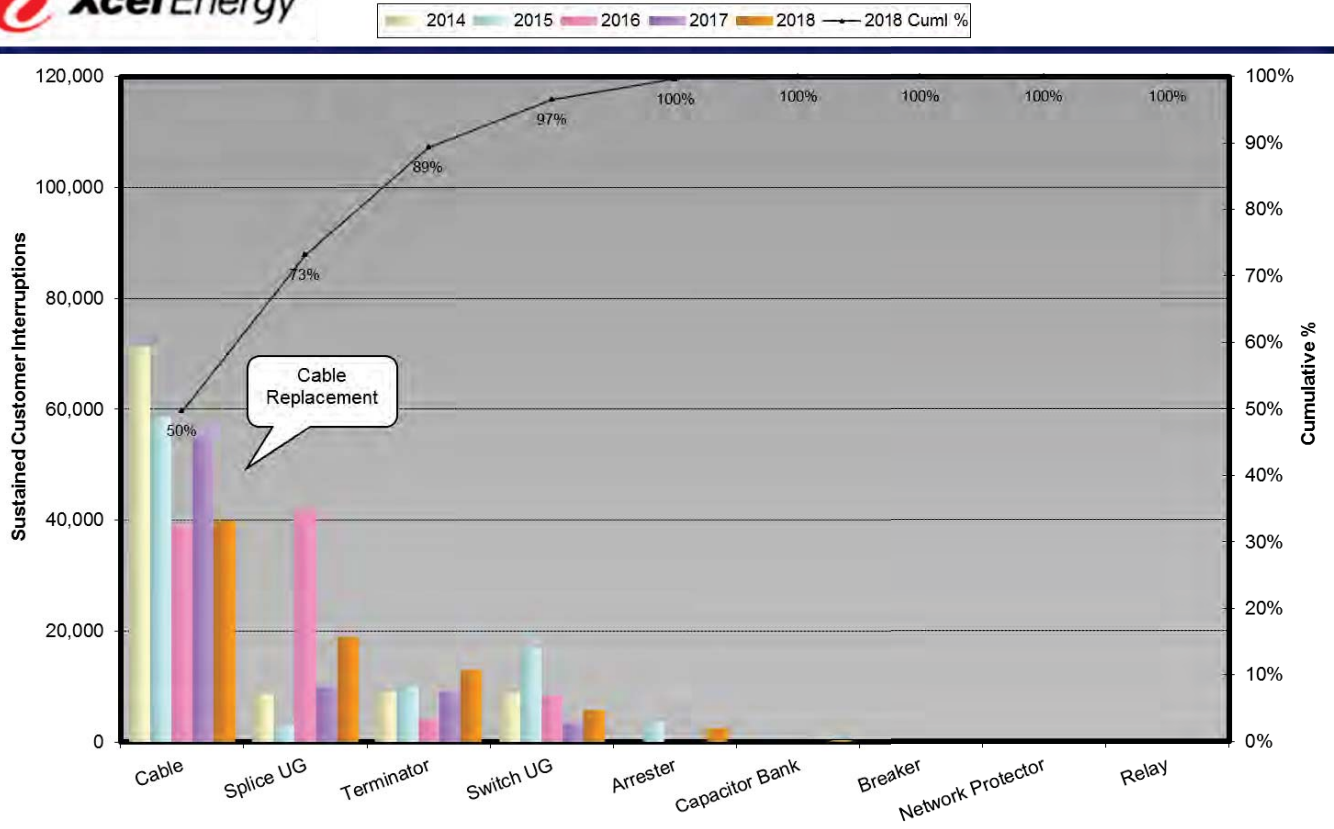
2014 2015 2016 2017 2018 2018 Cuml %



Tariff Method: IEEE 1366 Normalized by Region after excluding Transmission Line level, Meter-based customer counts.

; fUA \ `*

Minnesota Customer Interruptions By Failed Device - (Tariff Method/Threshold) Underground Mainline - By Calendar Year



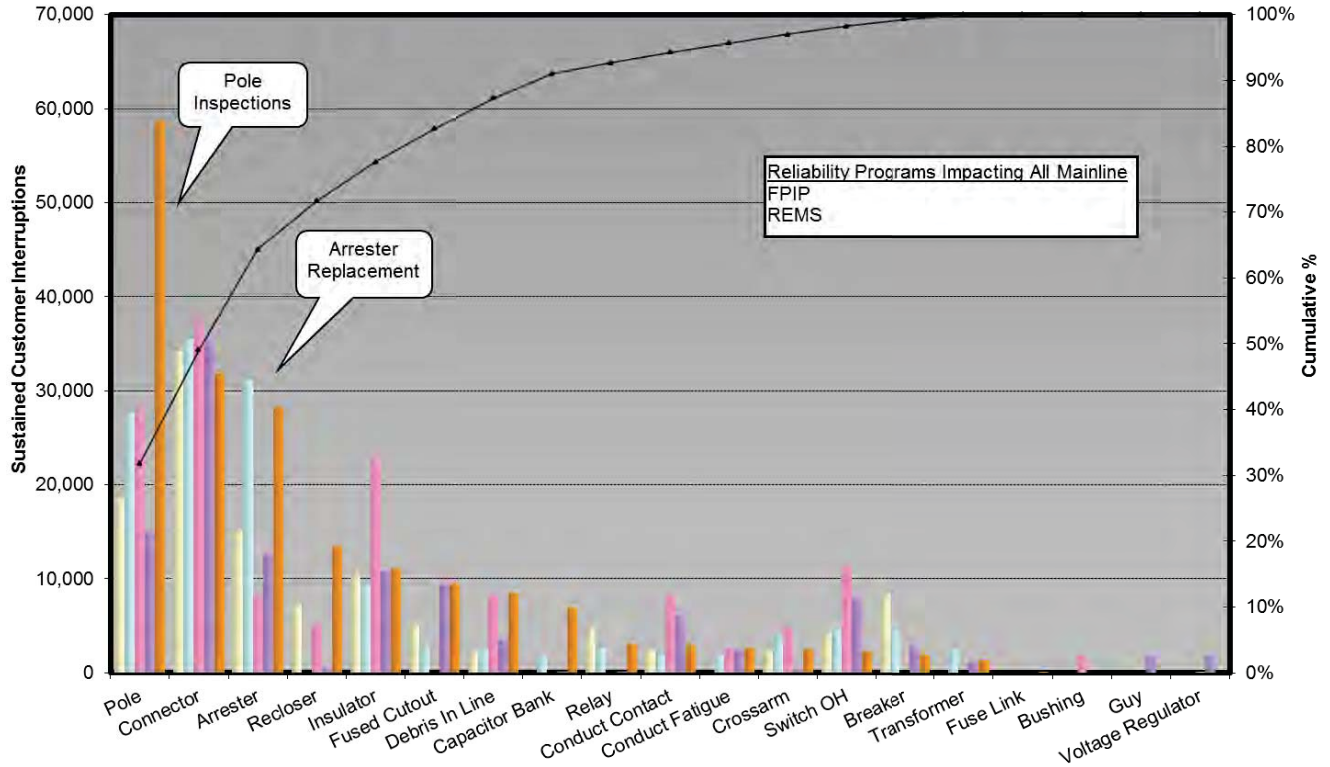
Tariff Method: IEEE 1366 Normalized by Region after excluding Transmission Line level, Meter-based customer counts.

; fU\`+`

**Minnesota Customer Interruptions By Failed Device - (Annual Rules Method/Threshold)
 Overhead Mainline - By Calendar Year**



2014 2015 2016 2017 2018 2018 Cuml %



Annual Rules Method: IEEE 1366 Normalized by region, All Levels, All Causes, Meter-based customer counts

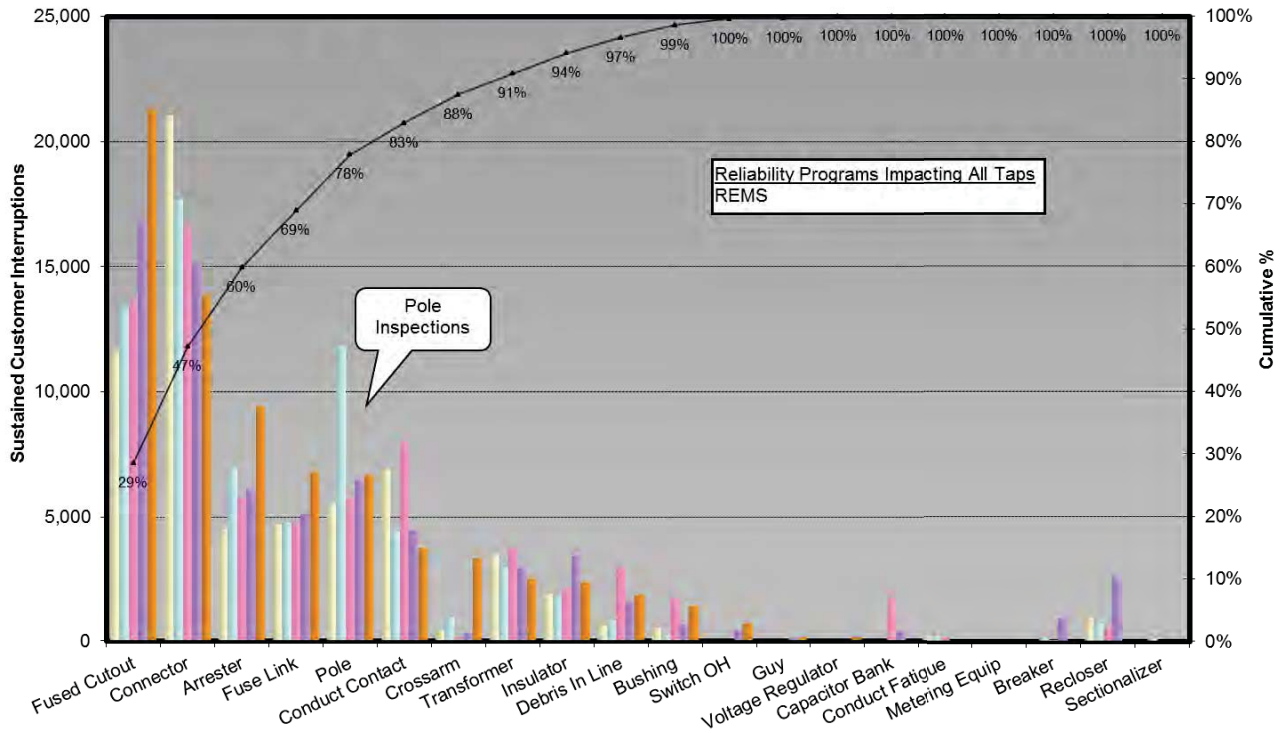
- .
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Minnesota Customer Interruptions By Failed Device - (Annual Rules Method/Threshold) Overhead Tap - By Calendar Year



2014 2015 2016 2017 2018 2018 Cuml %



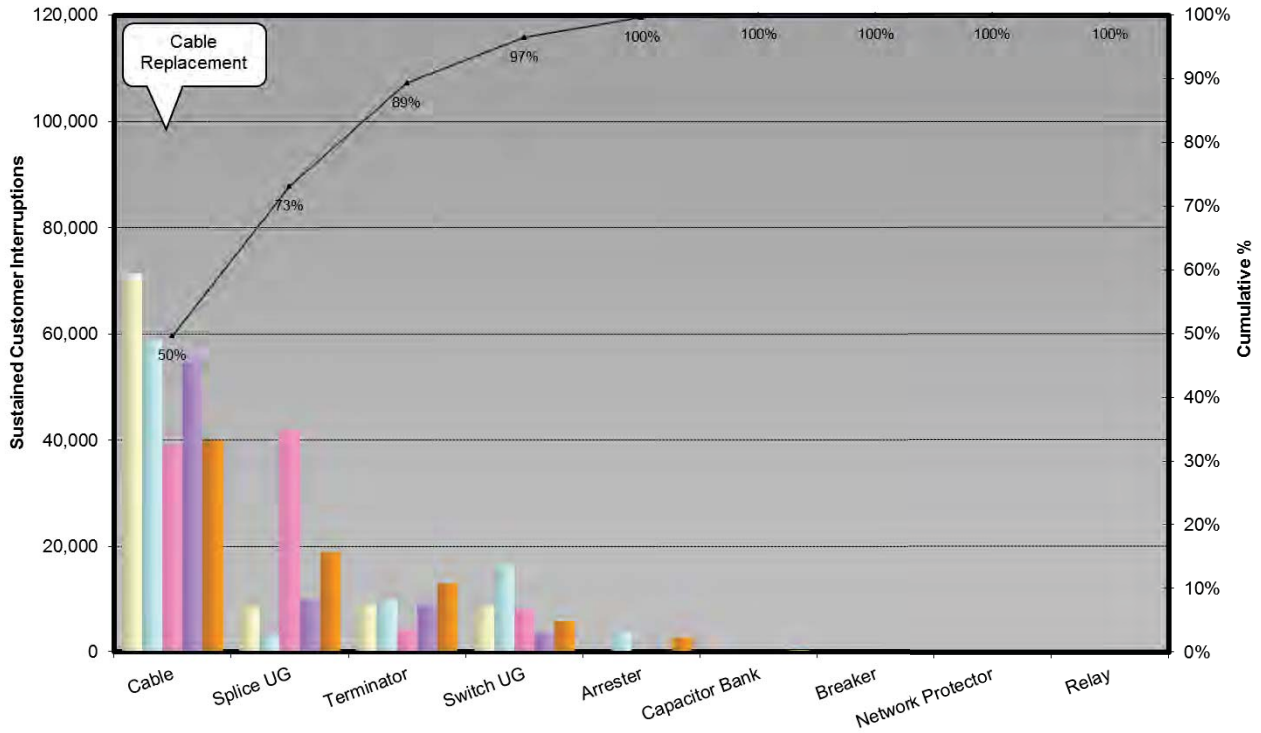
Annual Rules Method: IEEE 1366 Normalized by region, All Levels, All Causes, Meter-based customer counts

; fU\ ' .

**Minnesota Customer Interruptions By Failed Device - (Annual Rules Method/Threshold)
 Underground Mainline - By Calendar Year**



2014 2015 2016 2017 2018 2018 Cuml %



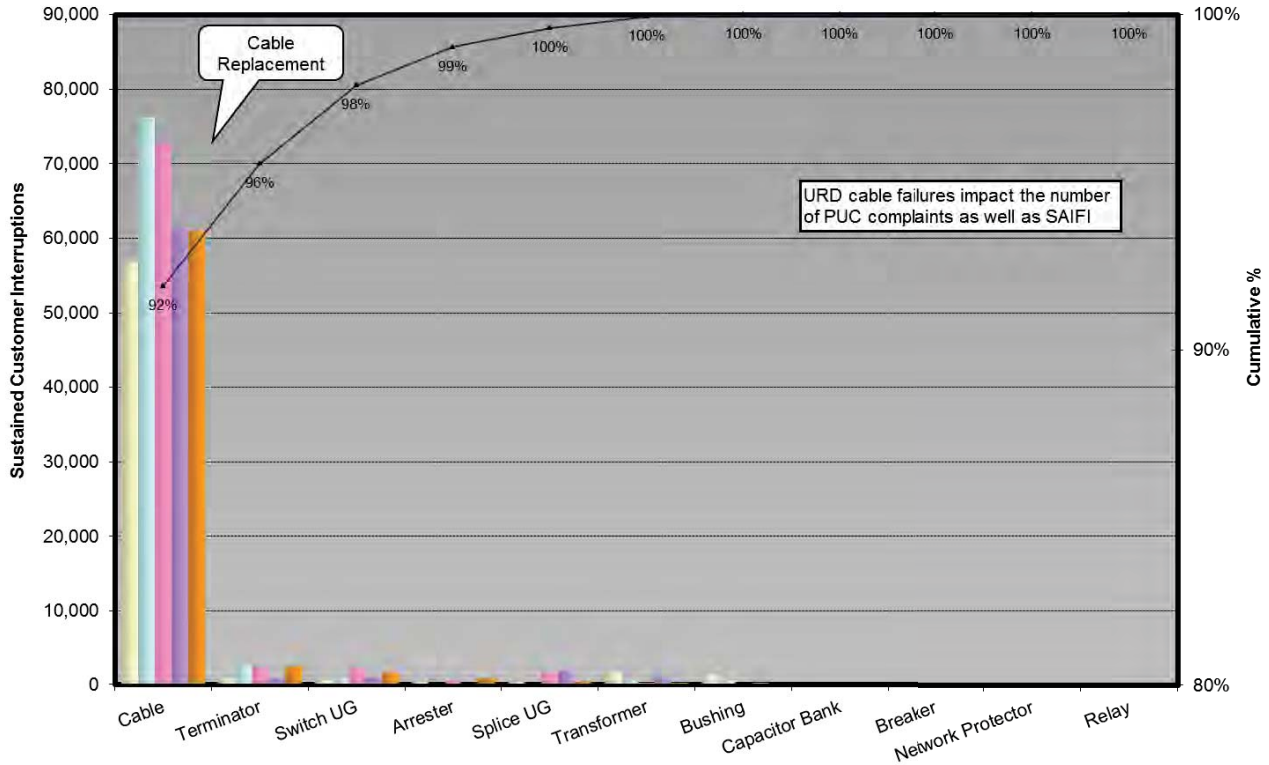
Annual Rules Method: IEEE 1366 Normalized by region, All Levels, All Causes, Meter-based customer counts

; fUd \ %S

Minnesota Customer Interruptions By Failed Device - (Annual Rules Method/Threshold) Underground Tap - By Calendar Year



2014 2015 2016 2017 2018 2018 Cuml %



Annual Rules Method: IEEE 1366 Normalized by region, All Levels, All Causes, Meter-based customer counts

1. Reliability Management Programs – ‘Star Chart’

5ZM WbgXf]b] hYa cghWa a cb'ZU]i fygUbXhYf'W gyZUgkY`UgUhf]g`
Yei]da Ybžk YXj Ycd'k cf_ d'Ubg'cf dfc[flā g'hc hf[Yhici f'lj Yga Ybhg/k Ydfcj]XY
h Ygydfc[flā g]b'h YDUf'7\UfNcb'h YZc`ck]b] dU'Y`H Ygydfc[flā g'fydfygbh
h'cgYdfcUWj Y]bj Yga Ybhg]b'ci f'fUba]g]cb'UbXX]gf]M hcb'gn]Ya gh'Uik YVY]j Y
U'Ya cgh`L Ymhc]a dfcj Ycj YfU`fy]U]]mžUgYh`YUhžUbXa Yhj U]ci g'Wbh]b] YbVh
d'Ubb]b] f'Yei]fYa Ybhg`H Ygy]bj Yga Ybhg'fYa UY]b'UX]hcb'hc'ch Y'Wd]U`
]bj Yga Ybhg'h Udfcj]XZcf'UX'Yei UY'WdUWmhc'a YhWgca Yf'fYei]fYa Ybhg'UbX'hc`
UW'a a cXU'cUX'g]hW]b] X'f]b] 'ci hU Yfyg'cbgY'hc'a]b]a]nY'Wgca Yf'ja dUWg`

FY]U]]lmA UbU Ya YbhDfc/ fUa =a dUWg'fGhf"7\ UHL

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NSPM Program Summary

Funded Programs	2016 Actuals (k\$)	2017 Actuals (k\$)	2018 Actuals (k\$)	IMPACTS			
				SAIFI	CAIDI	CEMI	Complaints
Reliability							
Feeder Perf. Improvement Program (OH & UG)	381	870	1,451	★		★	★
Outage Exception Reporting Tool (OH & UG)	637	455	490			★	★
Mainline Cable Replacement, (UG)	2,184	3,056	1,930	★			★
Tap (URD) Cable, (UG)	16,980	18,329	19,593	★	★		★
Install Automated Switches	103	0	0	★		★	★
Feeder Infrared Evaluation (OH)	20	20	58	★			
Vegetation Management (Transmission & Distribution)	26,247	29,024	29,352	★		★	★
Program Replacements (Transmission)	656	11	229	★			★
Integrity							
Pole Inspection & Replacement (Distribution)	7,197	7,707	11,035	★	★		
Transmission Substation	1,472	6,984	9,228	★			
Line ELR Work (Transmission)	2,166	4,824	2,834	★			★

Footnote: The above table reflects multi-year initiatives that are part of the Reliability Management Program(RMP). Information is based on current RMP, and is subject to change.

Funding information for previous years is a combination of Capital and O&M dollars; most of the equipment replacement dollars are capital expense while the inspection and testing programs include O&M dollars; O&M dollars and capital for pole replacements and FIRE program are currently estimates since changes are included in broader programs of work(e.g., OH rebuild OH maintenance accounts).

K Y\Uj Y]bX]W]Xh Ydf]a UfndYfZcfa UbW]a dUMg'cZh YgYdfc[flā g'k]h`UfYXg]ufz
k\YfYUdd]WVY/dcgg]VYdyfZcfa UbW]a dUMg]bWXYG5= =fGghA`5j YfU Y
=bhffi dhcb': fYei YbW]bX] lž75=8 =f7i g'ca Yf'5j YfU Y=bhffi dhcb'8 i fU]cb`
=bX] lž79A =f7i g'ca Yfg9l dYf]YbW]b['A i`h'dY=bhffi dhcbgž79@=f7i g'ca Yfg
9l dYf]YbW]b['@b[h'm=bhffi dhcbg]LubX7i g'ca Yf'7ca d'U]bg"''

H YgYdfc[flā g'VWwa YdUhcZh YUbbi UFA D'"5 FY]U]]m7cfYHMA`fF7Hž
Wbgl]b[cZVh` :]YXUbXD'Ubb]b['Z bW]cbg'a cb]lcfggghA`dyfZcfa UbWUbX`
dfc[fYgg]U]U]bgh YFA D'cb'Ua cbh`m]U]gž]U]b['U]cbg]U]bW]g]U]fnc`Ybg fYhAY
Yghidcgg]VYgghA`dyfZcfa UbW"''

=b'UX]hcb'lc`h Ydfc[flā g'g'ck b'Ucj Yž]b`&S%`k Yk]`VY]b]h]U]b['Ud]`chdfc[flā]b`
h YGci h YU]fY]]cb" H Yd]`chik]`VYfYd'U]b['dcfWU]b`Z g'XW]ci hg'k]h`dc`na Yf`
W]ci hg"5 ggYb]b; fUd\)`Ucj Yg'ck]b[=bhffi dhcbgVn] U]YX8 Y]]WZcf`
Cj Yf\ YUXH]džZ g'XW]ci hg\Uj YgYb'Ub]bW]U]b['Z]i fYfU]U]bX]b`&S%`k YfYhY
Xy]W]m]Y`k]h`h Y\]\]Ygh]a dUM]c`ci f`W]g'ca Yfg'cb`h Ycj Yf\ YUXH]d`gghA`"''
FYd'U]a YbhcZdcfWU]b`W]ci hg'g'ci`Xg'ck`UfYX] W]cb]b`W]ci hZ]i fYg'gbW
Z]i fYg'cW]f`df]a Uf]`mcb`dcfWU]b`W]ci hg"=Zh Yd]`ch]gg W]gž`žd'U]b'Zcf`U
Z fh Yf`fc`!ci hik]`VYX] YcdYX"

2. Reliability Management Programs – Key Initiatives

H YHUVYVYck`ci h]bYg'df]a Ufndfc[flā]bX]W]c'f'Zcf'ci f`_Ym]b]h]U]j Yg#dfc[flā g"''
H YU]U]U]a ci bhczkcf`_Wa d`YhXi bXf`YUW`dfc[flā j Uf]Yg'Zca`mUf`lc`mUfzUbX`
]g`U]g'Xdf]a Uf]`mcb`U]gYga Ybhc'Zh`cgYUfU]g'fYei]f]b['h Y[fYU]ghU]m]b]cbž`U]g'k Y`
U]gh YfYg`lg'cZci f`W]bX]hcb`U]gYga Ybhf]e.,`h Ybi a VY`cZXYZ]W]bW]g'fYei]f]b[`
W]ffW]j YU]m]cbl" : cf`Z fh Yf`X]g]m]dhcb`cZh Ydfc[flā g'X]g]m]VYX]b`h Y? Ym
=b]h]U]j Yg'HUVYžd`YU]gYh`YGHf`7\U]h]fHUVY&Ucj Yf"

HUVY'
Reliability Management Key Initiatives/Programs

	2018	2017	2016	2015	2014	2013	2012
Outage Exception Reporting Tool (OERT) (Replaced REMS in 2016)							
# of Exceptions identified	4,014	3,398	6,635	4,935	5,105	5,107	4,720
# of Service & Work Requests identified	652	297	215	408	455	698	694
Vegetation Management Program							
Total Overhead Distribution miles completed	2,307	2,417	2,086	1,856	3,737	2,780	3,084
Total Overhead Transmission miles completed	768	762	1,039	909	879	846	1,071
Normalized Tree-coded Sustained Cust Ints.(W/O Storms)	214,299	145,422	155,370	106,215	93,010	103,795	123,876
Non-normalized Tree-coded Sustained Cust Ints.(With Storms)	243,867	277,068	305,946	220,787	154,642	439,030	236,474
Underground Cable Replacement Program							
# of Segments That Have Been Replaced (est.)	1,504	1,411	1,378	861	1,165	1,256	1,024
# of Failures(Only on Primary Cable)	1,366	1,453	1,607	1,560	1,386	1,564	1,907
Feeder Infrared Evaluation(FIRE)							
# of Feeders Scanned	209	248	275	256	267	239	350
# of Hot Spots Corrected	67	71	68	99	62	52	50
Feeder Performance Improvement Plans(FPIP)							
Investigations Completed	108	113	105	96	108	98	98
Wood Pole Inspection Plan							
Total Distribution Wood Poles Inspected	33,720	17,972	18,845	10,213	9,198	31,436	20,555
Total Transmission Wood Poles Inspected	2,464	4,000	4,660	4,119	3,565	4,413	5,049

Information based on current RMP, subject to change

3. Reliability Management Programs – Work Practices

=a dfcj Ya Ybghc Yl]gh] kcf_ dfUMWghUhYF7H'a Ya Vfg'UbX'h Yf' gUzg]Xbh]Zn
 UbX]a d'Ya YbhUfYUg' Ub]a dcfhUbhWbh]M hcf'hc'h YWg'ca Yf'fY]U]]hm] dM]YbW
 UbXci f'fY]U]]hm]fZ'fa UbW' H'YgYUfYcdYU]hcbU'UbX#cf' dcf'W] fU'Wub] Yg'
]bh]bXX]c' Y]h Yf'fY] W'h Y duration' cZci hU Yg'ci 'X'h Ync'Wf'zcf'hc' fY] W'h Y
 frequency' cZci hU Yg'...

5g'bch]X]b'h YF Y]U]]m]A Ub] Ya YbhK cf_ 'DfUMWg'hUVYW'ck'žk YUg'Yg'UbX'
 df]cf]h]nY'h YUM]cbg'VUg'X'cb'UVUUbW'cZh Yf'U]]m]c' d'cg]h] Ym]a dUMfY]U]]m]
 f]]\ž'a Y]i a 'cf'ck'ž'Ug'k Y'ci f'U]]m]c']bWf'dcfU]]b]c' g]UbX]fX'k cf_ 'dfUMWg']
 k]h' a'cg]c'Wf]b]]WbWf]Ybhm' A Ub]cZh YgYUM]cbg'Xc' bch]fYei]fYUXX]hcbU'
 Z]bX]b]]c']a d'Ya Yb]z'UbX]fYUW]Y' Y]j]Ucb]c]b]]a d'cm]Y]f]U]b]b]]UbX#cf'
]bWf'dcfU]hcb]b]c' g]UbX]fX'k cf_ 'dfc'W] fYg'' K YWbh]bi ci g]na cb]]cf'U'UM]cbg]z'UbX'
 i dXU]ci f'd'Ub'Ug'Udd'fcd]U]''

HUVY(:
 FYJUM]]m]A UbU Ya YbhK cf_ DfUM]Wg

Areas of Opportunity	Key Initiative	Action/ Program	Description	Reliability impact
Resource Management	Duration	Contractor staffing	Use contractors for appointments, freeing up Xcel Energy crews to respond to outages	Medium
	Duration	Management Staffing	Schedule managers for staggered shifts in metro area to enable human response after hours: 3 managers working 5:30 a.m. to 4:00 p.m.; 1 manager 3:00 p.m. to 11:00 p.m.	Medium
Substations	Frequency	System integrity	Substation inspection done on every substation specific to identifying animal incursion risk and vegetation issues	High
	Frequency	Infra Red Substations	IR Subs after major equipment is switched out or thermal heating suspected	High
	Duration	Equipment Failure Response	Install Mobile subs and drag cables as quickly as possible when customers are out due to equipment failure	Medium
Feeders	Duration	Restore before repair	During a feeder event Control Center personal restore service to as many customers before making temporary/permanent repairs.	Medium
	Frequency	Intentional Outages	Reduce Impact of Intentional Outage to ensure all steps are being taken to keep the maximum number of customers on Verify switching to reduce customer counts. Repair while hot instead of taking the outage.	Medium
	Frequency & Duration	VM Partnership	Partner with Vegetation Management leadership to prioritize trimming of circuits that are scheduled to be trimmed. Substations to be trimmed with associated Feeders	High
	Frequency & Duration	Feeder Patrol Program	Looking for unfused taps and animal protection. Identify 336 auto splices. Continued use of IR/thermo imaging to identify problems.	Medium
Control Center	Duration	Restore before repair	Advanced technology going into the control centers and the field	High
Control Center	CAIDI	Model 1/0 Switching	This is a pilot project to model 1/0 urd as close to real time so the OMS model will reflect the configuration of the urd circuit after it has been switched	Medium
	CAIDI	Validate Restoration Times	Tighten up existing process on actual restoration times, utilize approver process to ensure outage times are correct	High
COM	CAIDI	COM Saturday Crews	6 Metro COM Saturday Crews. 3 Metro East and 3 Metro West	Medium
	SAIFI & CAIDI	Underground cable repair	Repair and/or replace cables as directed by engineering	High
	SAIFI	REMS/CEMI work	Complete work referred by engineering in a timely manner	Low
Reliability Team/ Communications	SAIFI & CAIDI	On-going Regular Reliability meeting	Meet regularly to review reliability, and share ideas to improve reliability performance	Low
	CAIDI	Outage Review	Root Cause Investigation of outages greater than 90 minutes of 0.1 SAIDI	Medium

79A =Hcc`g`

LW'9bYf[mXj YcdYXhcc`g`hUhU`ck i g`hc`Vhmf`hfUW`hYWM`gYgcZci f`79A =
ff`i g`ca Yfg`9l dYf]YbVb] `Ai` h`d`Y`b`h`f`f`i` d`h`c`b`g`L`" `b`W`b`f` b`W`c`b`k`]h` Ua` Udd]b] `hcc`
k`Y`W`b` `cc`_` U`nci` f`W`g`ca` Yfg`M` dYf]YbVW`U`g`]h]X`b`h`Z`Y`g`W`g`ca` Yfg`k`]h` `a` i` h`d`Y`ci` h`U` Y`g`
c`j` Y`f`U`f`j` c`j`]b]` %&`a` c`b`h`g`U`b`X`h` Y`b`d`f`c`j`]X`Y`U`j`]g` U`f`Y`d`f`Y`g`b`h`U`h`c`b`c`Z`h`c`g`Y`ci` h`U` Y`g`]b`
c`i` f`g`f`j`]W`h`f`f`]h`c`f`m`"5` h`ci` [`z`h`Ya` Yf]W`a` Y`U`j` f`Y`g`W`g`ca` Yfg`k` \c` \U` Y`Y` dYf]YbVW`X`U`i`
`Y`U`h`g`l` `g` g`U`b`Y`X`ci` h`U` Y`g`X`i` f]b]` `b`c`b`!`g`c`f`a` `X`h`g`z`k` Y`W`b` `g`i` X`n`W`g`ca` Yfg`M` dYf]YbV`
Y`f`]Y`" `H`]g`W`g`ca` Y`f`W`b`f`]W`cc` ` `Y`d`g` \] \] \ `h`W`g`ca` Y`f`g`h`U`h` \U` Y` \U`X`ci` h`U` Y`g`Z`ca` `.
X`]Z`Z`f`Y`b`h`W` g`Y`g`f`U`h` Y`f`h`U`b`U`g`b]` `Y`f`c`c`h`W` g`Y`" `b` `c`h` Y`f`k`c`f`X`g`z`h`]g`h`c`c` `X`c`Y`g`b`c`h` `cc`_` U`i`
h`Y`X`j`]W`h`U`h`W` g`Y`X`h`Y`ci` h`U` Y`z`]h`Y` U`a`]b`Y`g` \c`k` `a` U`b`n`h`a` Y`g`U`W`g`ca` Y`f`k`U`g`ci` h`c`Z`
g`f`j`]W`f`Y`[`U`X`Y`g`c`Z`h`Y`f`U`g`b`"

H`Y`g`Y`h`c`c`g`W`a` d`]a` Y`b`c`h`h`Y`f`d`f`c`[`f`L`a` g`z`g` W`U`g`h`Y`F`Y`]U`]]m`A` U`b`U` Y`a` Y`b`h`G`g`h`Ya` `.
f`F`9`A` g`L`h`U`h` `Y`d`i` g`]X`b`h`Z`r`g`d`W`Z`W`V`e`i`]d`a` Y`b`h`g`g` Y`g`f`Z`c`f`]b`g`h`U`b`W`z`h` Y`g`U`a` Y`X`j`]W`
h`f`d`d`]b]` `a` i` h`d`Y`h`a` Y`g`" `H`Y`79A` =h`c`c`g`d`f`c`j`]X`Y`h`Y`]b`_`Z`ca` `h`Y`ci` h`U` Y`]b`Z`c`f`a` U`h`c`b`
h`c` `h`Y`g`d`W`Z`W`W`g`ca` Y`f`]b`Z`c`f`a` U`h`c`b`c`b`U`c` `]g`]W`U`g`g`" `G`]b`W`a` i` W`c`Z`ci` f`U`b`U`n`g`g` \U`g`
Z`c`W`g`X`c`b`U`g`n`h`a` `d`Y`g`d`Y`W`j` Y`z`h`]g`b`Y`k` `h`c`c` `f`Y`U`n`f`ci` b`X`g`ci` h`ci` f`f`Y`]U`]]m`d`U`b`b]b]` `.
V`n`h`Y`d`]b]` `Z`c`W`g`c`b`h`Y`W`g`ca` Yfg`M` dYf]YbV`"

H`Y`f`Y`U`f`Y`a` U`b`n`f`U`g`c`b`g`U`W`g`ca` Y`f`W`i` `X` \U` Y`U`b`ci` h`U` Y`" `H`Y`g`Y`W` g`Y`g`]b`W` X`Y`X`c`k`b`Y`X`
h`f`Y`g`z`U`b]a` U`W`b`h`U`Z`U`W`f` \]h]b]` `U`d`c` Y`z`c`f` Y`j` Y`b`U`] \]b]b]` `g`f`]Y`" 9`U`W`c`b`Y`c`Z`h` Y`g`Y`
W` g`Y`g`W`i` `X`g` \c`k` i` d`c`b`U`X`]Z`Z`f`Y`b`h`f`Y`d`c`f`h`Z`c`f`U`X`]Z`Z`f`Y`b`h`d`]W`W`c`Z`Y`e`i`]d`a` Y`b`h`h`U`h`U`
Z`c`k` `X`c`k`b`h`c` `h`Y`g`U`a` Y`W`g`ca` Y`" `H`Y`g`Y`h`c`c`g`U`c`k` i` g`h`c` `U`b`U`n`Y`W`g`ca` Y`f`Y`i` dYf]YbV`
truly`Z`ca` `U`W`g`ca` Yfg`M` dYf]YbV`" `H`Y`g`Y`h`c`c`g` \Y`d`ci` f`Y`Z`c`f`h`g`]b`h`Y`c`b]` `h`f`a` `h`c`
f`Y`X`i` W`f`Y`d`U`h`X`ci` h`U` Y`g`Z`c`f`W`g`ca` Yfg`"

I`g`b]` `h`Y`g`Y`h`c`c`g`z`k` Y`W`U`h`X`h`Y`U`h`U`W`X`a` U`d`g`c`Z`ci` f`g`f`j`]W`h`f`f`]h`c`f`m`" `H`Y`Z`f`g`i`a` U`d`z`
5`H`U`W`a` Y`b`h`A` %`]g`U`b`c`j` Y`U` `j`]k` `c`Z`ci` f`Y`b`h`f`Y`A`]b`b`Y`g`c`h`U`g`f`j`]W`h`f`f`]h`c`f`m`U`b`X`h`Y`
g`Y`W`b`X`j`]k` ž`5`H`U`W`a` Y`b`h`A` &`]g`U`n`c`c`a` Y`X`]b`j` Y`f`g`c`b`c`Z`h`U`h`g`U`a` Y`a` U`d`Z`c`f`h`Y`H`k`]b`
7`]h`Y`g`a` Y`f`c` `f`Y`U`" 6`c`h` `c`Z`h`Y`g`Y`a` U`d`g`U`f`Y`]b`h`f`U`W`j` Y`U`b`X`h`Y`j`]k` g`W`b` V`Y`n`c`c`a` Y`X`]b`
U`b`X`ci` h`i`c` `a` U`Y`h`Y`X`U`U`a` c`f`Y`a` Y`U`b]b]`Z` " ; `f`Y`b` `X`c`h`g`f`Y`d`f`Y`g`b`h`h`c`g`Y`Z`Y`X`f`g`h`U`h`X`X`
b`c`h` \U` Y`U`b`n`W`g`ca` Yfg`Y`i` dYf]YbVb]` `a` c`f`Y`h`U`b`Z`j` Y`ci` h`U` Y`g`]b` &S`%" "

B`c`h`g`U`ci` h`h`Y`A` U`d`:

- 8`U`U`]g`V`U`g`X`c`b`h`Y`79A` =i` b`X`f`d`Y`Z`c`f`a` U`b`W`a` Y`U`j` f`Y`f`Y`e`i`]f`Y`a` Y`b`h`c`Z`
W`g`ca` Yfg`Y`i` dYf]YbVb]` [`f`Y`U`h`f`h`U`b`) `ci` h`U` Y`g`]b`U`g`b]` `Y`m`U`f`"
- 6`i` W`Y`g`U`f`Y`W`c`f` `W`X`X`V`U`g`X`c`b`h`Y`b`i` a` V`f`c`Z`W`g`ca` Yfg`]b`h`U`h`f`Y`U`h`U`h`
Y`i` dYf]YbVW`X`[`f`Y`U`h`f`h`U`b`) `ci` h`U` Y`g`"
- `H`Y`[`Y`c`[`f`U`d`]W`c`W`h`c`b`c`Z`h`Y`V`i` W`Y`]g`b`c`h`U`d`f`Y`W`g`Y`c`W`h`c`b`c`Z`U`b`]b`X`j`]X`i` U`
d`f`c`V`Y`a` `V`i` h`f`U`h`Y`f`[`Y`b`Y`U`m`]b`X`]W`h`g`h`Y`U`f`Y`U`Z`Z`W`X`X`"

LW'9bY[m
Gyf]WE i U]mFYdcfhi&S%`
8]gf]M hcb'gnhA`DYZcfa UbWG a a Ufm

8cWYhBc"9SS&#A!% !SSSS`
5hUWa Ybhi žDUY%`cZ%`

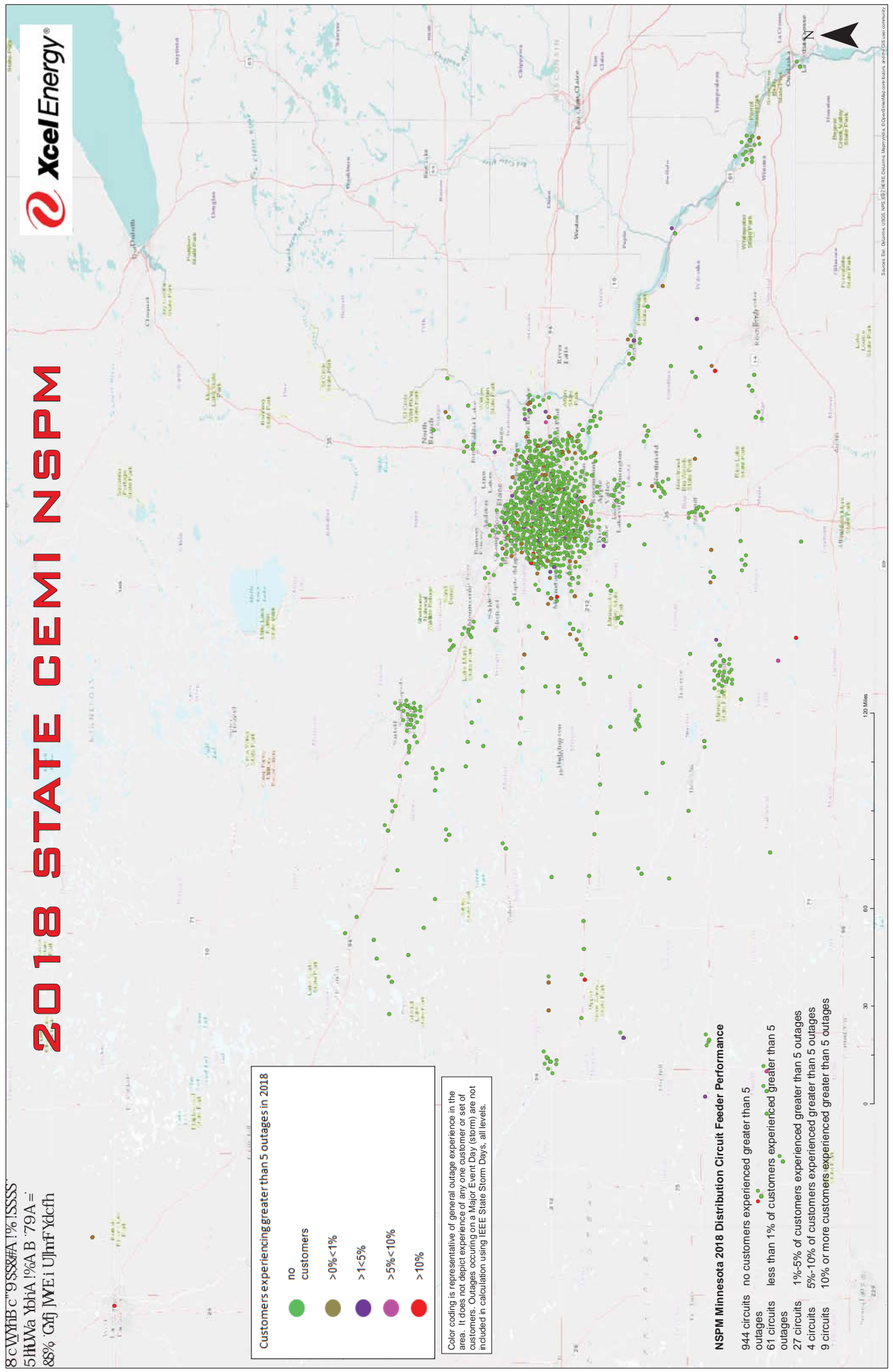
- Ci HJ YgcWff]b[`cb'a Ucf`Y YbhXhg]hca`XhgLUYbch]bW`XXUg`dUfhcZ`
h`YWgca Yf`ci HJ`YI`dYf]bW]bX`WXXcb`h`Ya`Ud`

7cbW`gcb`

=b`g`a`a`Ufm`h`g`Xc`Wa`Yb`ci`h]b`Yg`h`Y7`ca`dU`m`g`f`Y]U]`]m`f`Yg``g`z`d`f`c`j`]X`g`h`Y`b`X`
]b`Z`c`f`a`U`h`c`b`z`U`b`X`W`f`f`Y`U`h`g`V`c`h``h`Y`]a`dU`m`c`Z`c`i`h`g`]X`Y`Z`c`f`W`g`z`U`g`k`Y``U`g`h`Y`d`c`g`h`j`Y`
U`m`c`b`g`k`Y`\`j`Y`H`j`Y`b`h`c`U`W`]`j`Y`c`i`f`f`Y`g``h`g`"K`Y`\`j`Y`g`a`a`U`f`n`X`h`Y`d`f`c`W`g`g`Y`g`U`b`X`
X`U`h`U`h`k`Y`i`g`Y`h`c`X`h`f`a`]b`Y`U`f`U`g`c`Z`[`f`Y`U`h`g`]a`dU`m`X`j`Y`c`d`h`f`[`Y`h`X`]b`j`Y`g`a`Y`b`h`
g`f`U`m`]`g`z`Y`b`g`f`Y`h`Y`I`Y`m`h`c`b`c`Z`U`b`i`U`k`c`f`_`d`U`b`g`z`U`b`X`U`g`g`f`Y`f`Y`]U]`]m`U`b`X`c`b`[`c`]b`[`
g`U`h`g`Z`U`m`c`f`m`d`Y`Z`c`f`a`U`b`W`c`Z`h`Y`g`g`h`A``U`g`U`k`\`c`Y`"K`Y`_`b`c`k``h`U`h`d`c`g`h`j`Y`f`Y`g``h`g`U`f`Y`U`
X`]f`Y`m`f`Z`Y`m`c`b`c`Z`W`b`g`g`h`b`h`U`b`X`g`g`U`b`Y`X`Z`c`W`g`z`U`b`X`U`g`g`W`z`V`Y`]`j`Y`c`i`f`F`A`D`U`b`X`
c`h`Y`f`U`m`c`b`g`d`f`c`j`]X`Y`U`g`c`]X`Z`c`i`b`X`U`h`c`b`c`b`k`\]W`h`c`X`Y`]j`Y`f`f`Y`]U`V`Y`d`Y`Z`c`f`a`U`b`W`c`Z`c`i`f`
X`]g`f`]M`h`c`b`'g`n`h`A`""

8cWYBc"9SS8#A 1%ISSSS
 5HLWa YbFA 1%A B 79A =
 88% Gfj JWEi UJmfYdcfh

2018 STATE CEMI NSPM



Customers experiencing greater than 5 outages in 2018

- no customers
- >0% < 1%
- >1% < 5%
- >5% < 10%
- >10%

Color coding is representative of general outage experience in the area. It does not depict experience of any one customer or set of customers. Outages occurring on a Major Event Day (storm) are not included in calculation using IEEE State Storm Days, all levels.

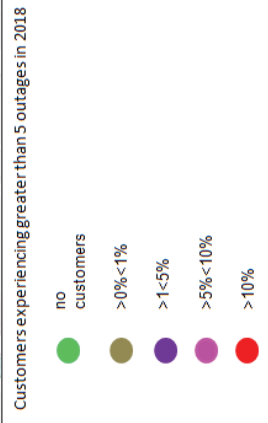
NSPM Minnesota 2018 Distribution Circuit Feeder Performance

- 944 circuits no customers experienced greater than 5 outages
- 61 circuits less than 1% of customers experienced greater than 5 outages
- 27 circuits 1%-5% of customers experienced greater than 5 outages
- 4 circuits 5%-10% of customers experienced greater than 5 outages
- 9 circuits 10% or more customers experienced greater than 5 outages

Source: See Dutton, IEEE, IEEE Customer Metering & Outage Management, 2018, IEEE.com

8 c WfB c" 9 SS&#A 1% :SSSS
 5HUWa Ybna i&A B 79A =A Yfc
 88% Gfj iWE i Ullmf Xdcfh

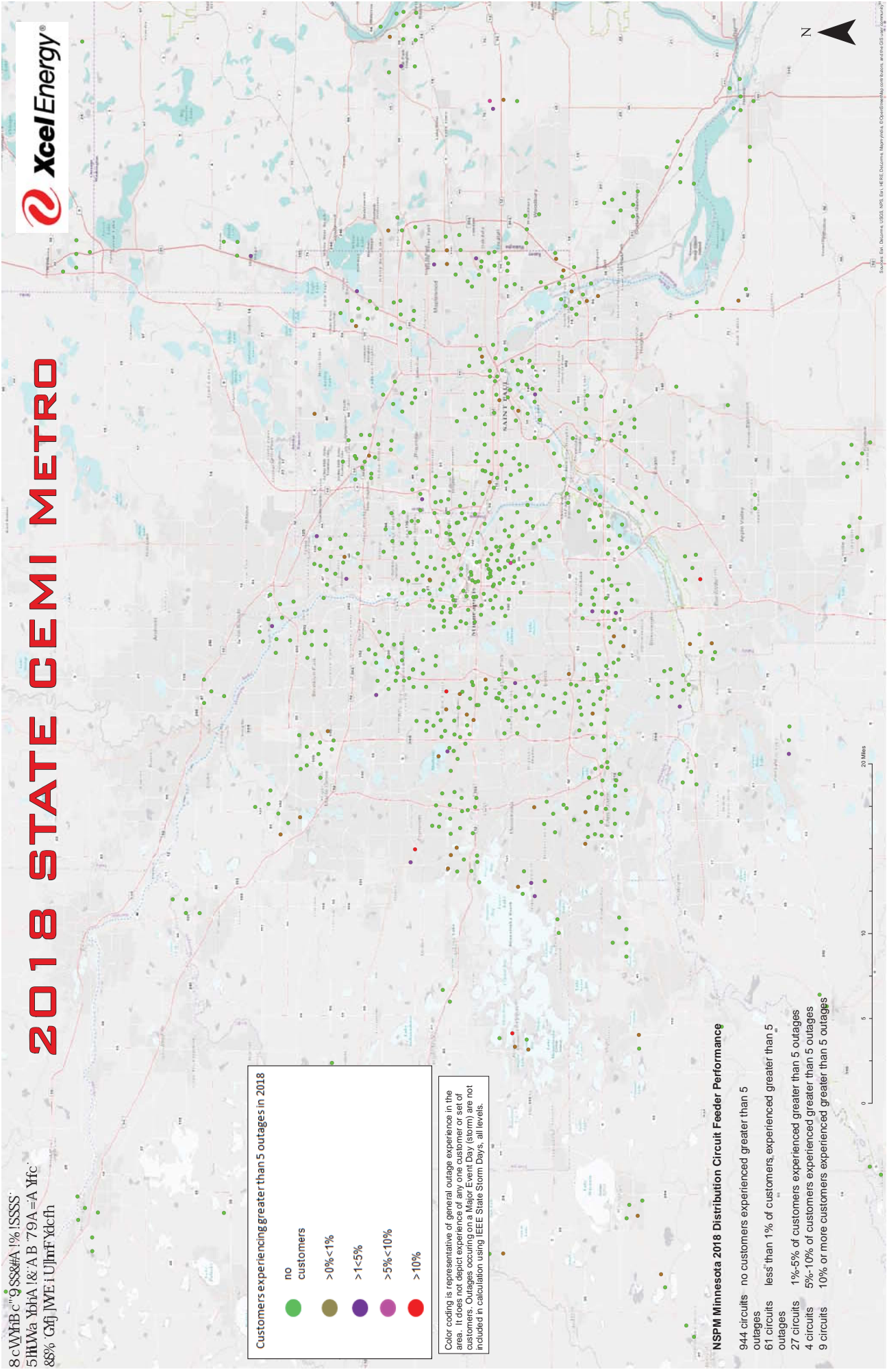
2018 STATE CEMI METRO



Color coding is representative of general outage experience in the area. It does not depict experience of any one customer or set of customers. Outages occurring on a Major Event Day (storm) are not included in calculation using IEEE State Storm Days, all levels.

NSPM Minnesota 2018 Distribution Circuit Feeder Performance

- 944 circuits no customers experienced greater than 5 outages
- 61 circuits less than 1% of customers experienced greater than 5 outages
- 27 circuits 1%-5% of customers experienced greater than 5 outages
- 4 circuits 5%-10% of customers experienced greater than 5 outages
- 9 circuits 10% or more customers experienced greater than 5 outages



Source: Eir, Duane, USGS, NCE, Esri, HERE, DeLorme, Mapbox, © OpenStreetMap contributors, Swatch, © Mapbox

LW'9bYf[m
 Gyf]WE i U]mFYdcfhì &S%
 Gcfa '8Uñ7U gYgA 5= =

8 cWYhBc"9SS&A !% !SSS
 5hUWa YbhB
 DU Y%cZ(

=b'h]g5hUWa Ybžk Ydfcj]XYhYZc`ck]b['fY]U]]mFYUHX]bZcfa U]cb.

- Gcfa '8Uñci hU YW gYg'
- ÎB Yf'a]g] g'cfa X]g/UbXž
- A ca Yb]m5j YfU Y=b]ffid]cb: fYei YbW=bX] fA 5= =L'fYg 'lg''

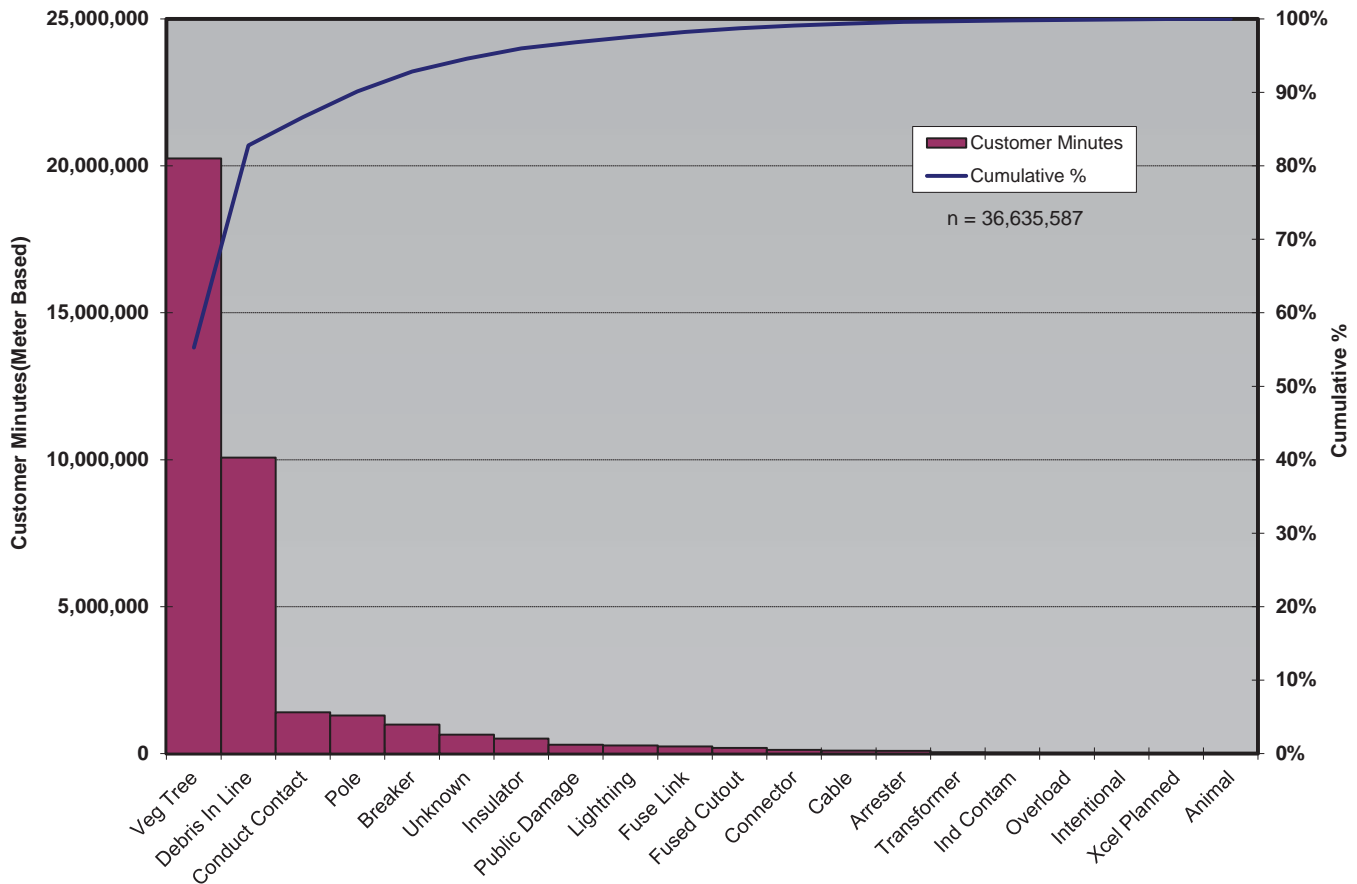
=b'UX]hcbž]b'Wa d']bWk]h 'hY7ca a]g]cb]C fXf']g] YXGd]hA Vf" ž&S%]b'
 8 cWYhBc"9SS&#, F!%&- *%UbXh YWa a]h' Ybhk Ya UX]b'ci f'Gd]hA Vf"% ž
 &S% :]bU F]Ug'7ca d']bWZ]b[]b'h'UxWYžk Ydfcj]XYUX]hcbU fYdcfh]b['cZ
 WffYbhn]j U]WYA 5= =XU" '5 g' k Ybch' h'UdYf' h'Y7ca a]g]cb]C fXf']b'
 8 cWYhBc"9SS&A !% !& - ž5hUWa YbhB %]bW X]g'A 5= =WUHX]i gb['h Y
 &) 'WUa YhcXci h]bYX]b'999 % **!&S%&'

='' Gcfa '8UñCi hU Y7U gYg'

H'YWyck]'fU\ g'ck g'hYa Ucf' W gYg'cZci hU Yg'Zc' g'cfa X]g]i gb['ci f'5bbi U'
 Fi Yg'g'cfa 'bcfa U]n]hcb'a YhcX'c[m]



Minnesota
 YE 2018, MN Rules(IEEE All Levels) Storm Days Only, Top Causes
 Includes All Levels and All Causes



LW'9bY[m
 Gyf]WE i U]mFYdcfhì `88%`
 Gcfa `8 Uh7U gYgA 5= =

8 cWYhBc"9SS&A !% !SS`
 5hUWa YbhB`
 DU Y&cZ(`

= " ÎBYU!A]ggj`Gcfa`8Uhg`

: c`ck]b[`fYhYÎbYU!a]ggj`g`cfa`XUhgVrkc f_`Wohfzi gb[`ci f`5bbi UFi`Yg`
 g`cfa`bcfa U]nU]cb`a`YhcXc`c[m`H`YgYXUhg`Wa`Yk]h]b`%\$!`\$`dYFWbhcZh`Y`
 g`cfa`hfYg`c`X`Zhi`g`zh`Yr`Ma`Y`close`lc`VY]b[`Xg]b`UNXUg`g`cfa`XUhg`

Annual Rules Normalization - Near Miss Days

<u>Region</u>	<u>Date</u>	<u>SAIDI on Days within 10% of Storm Threshold</u>	<u>SAIDI on Days within 10-20% of Storm Threshold</u>	<u>SAIDI on Days within 20-30% of Storm Threshold</u>
Metro East	8/27/2018		5.3	
<i>Region Total Impact</i>			5.3	
Metro West	5/24/2018			3.4
Metro West	6/11/2018		4.1	
Metro West	9/20/2018	4.3		
<i>Region Total Impact</i>		4.3	4.1	3.4
Northwest	3/05/2018			5.8
Northwest	5/08/2018	7.2		
Northwest	7/03/2018			5.9
Northwest	8/03/2018			5.7
<i>Region Total Impact</i>		7.2		17.4
Southeast	3/29/2018			7.2
Southeast	4/13/2018		7.7	
Southeast6/17/2018			7.6	
<i>Region Total Impact</i>			15.3	7.2
<i>MN Total Impact</i>		2.7	5.2	4.0

* SAIDI impacts based on individual regional impacts.

* MN Total based on overall state impacts. Not the additive of individual regional impacts.

LW'9bYf[m
Gyf]WE i U]mFYdcfhì &S%
Gcfa '8 Uh7U ygZA 5= =

8 cWYhBc"9SS&#A !% !SSS
5hUWa YbhB
DUY' cZ(

== " A 5= =FYgì lg

H\YZc`ck]b[&S% A 5= =fydcfh]b[dfej]Xg'h YA 5= =WWU]cb'Zcf'ci f
G7585!YbUVX: YXXf! Y Y' dfehWcb'Xy]Wg'h Uh\Uj YcdYUHXk]h]b UZj Y
a]bi hY]a YdY]cXzi gb['h Y=999 A ca YbUfm=bhffi dhcb'9j YbhXZ]b]hcb"

; YbYU`nza ca YbUfnci hUj Y]bZcfa U]cb'lgUj U'WYUhh Y: YXXf! Y Y' UbXUcj YZ
Vni YXXf' W]W]zUbXcb`mcb: YXXfgh UhUfY'c W]X]b'g VgU]cbgk]h 'G dYf]]gcfm
7cb]fc`UbX8 UH5Wm]ghcb'f(G7585LWU]]m' K]h 'WffYbhX]gf]M hcb'
]bZU]fi W' fYzk YUfYU'Yhc' fYdcfhA 5= =Uhh YX]gf]M hcb: YXXf`Y Y' Zcf'
Uddfcl ja UYm' &dYWbhcZci f'fYU]`Wg]ca Yfg"

6Yck UfYci f&S% A 5= =fygì lgZc`ck YXVmXZ]b]hcbg'cZh YWWU]cb'
a YhcXc`c[]Ygk YUdd]YX'

&S% A 5= =FYgì lg

FY]cb'	B cb! B cfa U]nYX	LW'9bYf[m E GDHf]Z	LW'9bYf[m 5bbi U Fi Yg'
A]bbYgc]U	S'+*	S') +'	S'+S'
A Yfc'9Ugi	S', &	S'*)	S'++
A Yfc'K Ygi	S'*%	S') %	S'))
B cfhk Ygi	% +'	S',)	%&
Cci hYgi	S'+'	S'' +'	S'*-

Non-normalized

- =bWXYgci hUj YgcWmf]b['UhU`Y Ygf]M]gf]M hcbzg VgU]cbzUbX
hfUga]gg]cbE"
- =bWXYgU`ci hUj YW gYWXg"
- 7UWU]cbgUfYUgYXcb'h Ybi a Vf'cZWg]ca Yfg]M`]b['UWi blgUbX
a Yhf"
- =bWXYU`X]ng]b' WWU]cbg"

Xcel Energy (Quality of Service Plan Tariff Method)

- 9l WXYgci hUj YgcWmf]b['UhHfUga]gg]cb@]bY`Y Y"
- =bWXYgU`ci hUj YW gYWXg"
- 7UWU]cbgUfYUgYXcb'h Ybi a Vf'cZWg]ca Yfg]M`]b['UWi blgUbX
a Yhf"

LW'9bYf[m
Gyf]WE i U]mFYdcfhì &S%`
Gcfa `8 Uh7U ygZA 5= =

8 cWYhBc"9SS&#A !% !SS`
5HUA YbhB`
DUY(`cZ(

- 9l WXYgU` gcfA` XhghUhei U]Zni bXf`-999`&) `bcfa U]nU]cb`a YhcX
UZh`fYa cj]b[HfUba]ggcb`@]bY`Y Y"

Xcel Energy (Annual Rules Method)

- =bWXYgci H] YgcWff]b[`UhU`Y Ygf]g]M hcbzg VgU]cbzUbX
hfUba]ggcbL`
- =bWXYgU`ci H] YW gYWXg`
- 7UW/U]cbgUfYVUgXcb`h`Ybi a Vf`cZWgca YgM`]b[UWi blgUbX
a Ymf`
- 9l WXYgU` gcfA` XhghUhei U]Zni bXf`h`Y5bbi UFi`Yg`-999`&) `WU
bcfa U]nU]cb`ci h]bX]b`-999`%`*!&S%i gb[`U`Y Yg`

K Y\j Y]bWXYXhYZc`ck]b[`Zj YUX]hcbU`A 5= =fYdcflgUg5HUA YbhB`%]b`
Wa d]UbWk]h`h`Y7ca a]ggcb]CfXf`]gg YXGdhA Vf` ž&S%`]b`8 cWYhBc`
9SS&#; F!%&- *%UbXh`YhA d`Uk Ydfcj]XX]b`ci f`GdhA Vf`% ž&S%` :]bU`
FUhg7ca d]UbWZ]b[]b`h`UhXcWYh`

- %" 5`hVYk]h`Ubbi U`A 5= =fYg`hgZcf`A]bbYgchU]bX`ci f`Zci f`kcf`_`Wbhf`g`
i]gb[`hfYYX]ZZfYbhbcfa U]nU]cb`a YhcXc`c[]Yg`/`
- &" 5`hVYk]h`h`YA 5= =fYg`hgUbX7i gca Yf`=bhffi dhcbgVna cbh`UbXVni
kcf`_`Wbhf`/`
- ' "" 5`Zj YmUf` \]gcf]W`cc`_`Zcf`A]bbYgchUA 5= =h`Uhg`ck`g`h`YhfYYX]ZZfYbh
bcfa U]nU]cb`a YhcXc`c[]Yg`UbXh`Yf`Ugg`W]hXhYbX`]bYg`/`
- (" 5`dUfYc`Wufhg`ck]b[`h`Yhd`W`ygZcf`]bhffi dhcbgZcf`h`YWffYbhimUf`/`
UbX`
-)"" 5`dUfYc`Wufhg`ck]b[`h`Yhd`W`ygZcf`]bhffi dhcbgZcf`h`YdUghZj YmUf`g`

Ci f`gnhA` WU]]hYg`UbXdfcW`fYg` \j YWU] YXUbX`Y`c`j`YXcj`Yf`hA`Y`
H`YfZcfYh`Y` \]gcf]W`A 5= =fYg`hg`k`]`VYVUgXcb`k` \Uci f`dfch`W`UbX`
d`ng]W`WU]]hYg`k`YfZcf`W`dh`f]b[`a`ca`Ybhfm`Y`Ybh`Uh`Uhd`c]bh]b`hA`Y`

With Storms - All Levels, All Causes

MAIFI(<=5Mins)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Metro East	1.18	0.80	0.95	0.97	0.70	0.89	0.80	0.82	0.84
Metro West	1.10	0.89	1.01	0.87	0.82	0.73	0.85	0.61	0.56
Northwest	1.38	1.59	1.42	1.82	1.51	1.44	1.42	1.37	1.42
Southeast	1.29	1.09	1.08	0.89	1.20	0.88	1.05	0.73	0.92
Minnesota	1.17	0.95	1.04	1.00	0.89	0.86	0.91	0.76	0.77

Tariff - IEEE No Transmission Line, All Causes

MAIFI(<=5Mins)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Metro East	0.89	0.59	0.81	0.77	0.55	0.81	0.70	0.65	0.81
Metro West	0.72	0.52	0.76	0.65	0.67	0.55	0.65	0.51	0.53
Northwest	0.61	0.38	0.96	0.67	0.81	0.69	0.64	0.85	0.75
Southeast	0.32	0.22	0.37	0.35	0.34	0.32	0.39	0.37	0.44
Minnesota	0.72	0.50	0.76	0.66	0.61	0.62	0.64	0.57	0.63

Annual Rules - IEEE All Levels, All Causes

MAIFI(<=5Mins)	2010	2011	2012	2013	2014	2015	2016	2017	2018
Metro East	1.03	0.74	0.87	0.81	0.57	0.82	0.76	0.79	0.83
Metro West	0.94	0.75	0.96	0.77	0.80	0.64	0.76	0.55	0.55
Northwest	1.31	0.84	1.42	1.28	1.51	1.44	0.95	1.28	1.42
Southeast	1.08	1.09	1.06	0.81	0.97	0.88	1.00	0.73	0.78
Minnesota	1.02	0.79	0.98	0.84	0.81	0.80	0.80	0.71	0.75

MAIFI - <= 5 Minutes Duration

Minnesota - MAIFI	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2018 With Storms, All Levels, All Causes	0.01	0.04	0.03	0.09	0.13	0.08	0.09	0.10	0.10	0.05	0.03	0.01	0.77
Tariff Normalized, IEEE No Trans Line, All Causes	0.01	0.04	0.03	0.06	0.12	0.07	0.08	0.07	0.08	0.05	0.02	0.01	0.63
New Annual Normalized, IEEE All Levels, All Causes	0.01	0.04	0.03	0.08	0.13	0.08	0.09	0.10	0.10	0.05	0.03	0.01	0.75
2017 With Storms, All Levels, All Causes	0.04	0.02	0.06	0.06	0.04	0.14	0.10	0.04	0.09	0.13	0.01	0.03	0.76
New Tariff Normalized, No Trans Line, All Causes	0.03	0.02	0.04	0.04	0.04	0.07	0.09	0.04	0.08	0.08	0.01	0.03	0.57
Annual Normalized, All Levels, All Causes	0.04	0.02	0.06	0.06	0.04	0.09	0.10	0.04	0.09	0.13	0.01	0.03	0.71
2016 With Storms, All Levels, All Causes	0.02	0.04	0.06	0.06	0.09	0.10	0.17	0.09	0.09	0.04	0.11	0.03	0.91
New Tariff Normalized, No Trans Line, All Causes	0.02	0.04	0.05	0.04	0.09	0.08	0.08	0.06	0.07	0.04	0.06	0.03	0.64
Annual Normalized, All Levels, All Causes	0.02	0.04	0.06	0.06	0.09	0.10	0.11	0.09	0.09	0.04	0.07	0.03	0.80
2015 With Storms, All Levels, All Causes	0.04	0.02	0.04	0.04	0.10	0.12	0.22	0.07	0.10	0.03	0.04	0.02	0.86
New Tariff Normalized, No Trans Line, All Causes	0.04	0.00	0.03	0.03	0.08	0.10	0.12	0.06	0.08	0.03	0.03	0.02	0.62
Annual Normalized, All Levels, All Causes	0.04	0.02	0.04	0.04	0.10	0.12	0.16	0.07	0.10	0.03	0.04	0.02	0.80
2014 With Storms, All Levels, All Causes	0.04	0.09	0.03	0.07	0.15	0.16	0.06	0.10	0.07	0.05	0.05	0.03	0.89
New Tariff Normalized, No Trans Line, All Causes	0.04	0.04	0.02	0.05	0.10	0.10	0.05	0.07	0.05	0.04	0.03	0.02	0.61
Annual Normalized, All Levels, All Causes	0.04	0.06	0.03	0.07	0.15	0.12	0.06	0.10	0.07	0.05	0.05	0.03	0.81

MAIFI - <= 5 Minutes Duration

Metro East - MAIFI	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2018 With Storms, All Levels, All Causes	0.01	0.05	0.04	0.06	0.15	0.06	0.13	0.11	0.09	0.08	0.03	0.01	0.84
Tariff Normalized, IEEE No Trans Line, All Causes	0.01	0.05	0.04	0.06	0.14	0.06	0.13	0.09	0.09	0.08	0.03	0.01	0.81
New Annual Normalized, IEEE All Levels, All Causes	0.01	0.05	0.04	0.06	0.14	0.06	0.13	0.11	0.09	0.08	0.03	0.01	0.83
2017 With Storms, All Levels, All Causes	0.06	0.03	0.06	0.07	0.06	0.07	0.14	0.04	0.07	0.20	0.01	0.01	0.82
New Tariff Normalized, No Trans Line, All Causes	0.06	0.03	0.06	0.05	0.05	0.05	0.13	0.04	0.07	0.09	0.01	0.01	0.65
Annual Normalized, All Levels, All Causes	0.06	0.03	0.06	0.07	0.06	0.05	0.13	0.04	0.07	0.20	0.01	0.01	0.79
2016 With Storms, All Levels, All Causes	0.02	0.07	0.08	0.10	0.07	0.06	0.11	0.09	0.12	0.03	0.06	0.01	0.80
New Tariff Normalized, No Trans Line, All Causes	0.02	0.07	0.08	0.07	0.07	0.06	0.06	0.09	0.10	0.03	0.06	0.01	0.70
Annual Normalized, All Levels, All Causes	0.02	0.07	0.08	0.10	0.07	0.06	0.06	0.09	0.12	0.03	0.06	0.01	0.76
2015 With Storms, All Levels, All Causes	0.04	0.00	0.05	0.05	0.09	0.09	0.28	0.09	0.11	0.03	0.04	0.04	0.89
New Tariff Normalized, No Trans Line, All Causes	0.04	0.00	0.05	0.05	0.09	0.08	0.21	0.09	0.10	0.03	0.04	0.04	0.81
Annual Normalized, All Levels, All Causes	0.04	0.00	0.05	0.05	0.09	0.09	0.21	0.09	0.11	0.03	0.04	0.04	0.82
2014 With Storms, All Levels, All Causes	0.04	0.06	0.02	0.05	0.10	0.16	0.07	0.04	0.02	0.03	0.08	0.02	0.70
New Tariff Normalized, No Trans Line, All Causes	0.04	0.01	0.02	0.05	0.10	0.08	0.07	0.04	0.02	0.03	0.06	0.02	0.55
Annual Normalized, All Levels, All Causes	0.04	0.01	0.02	0.05	0.10	0.08	0.07	0.04	0.02	0.03	0.08	0.02	0.57

MAIFI - <= 5 Minutes Duration

Metro West - MAIFI	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2018 With Storms, All Levels, All Causes	0.01	0.03	0.01	0.05	0.10	0.06	0.06	0.07	0.10	0.03	0.02	0.00	0.56
Tariff Normalized, IEEE No Trans Line, All Causes	0.01	0.03	0.01	0.05	0.10	0.06	0.06	0.05	0.10	0.03	0.02	0.00	0.53
New Annual Normalized, IEEE All Levels, All Causes	0.01	0.03	0.01	0.05	0.10	0.06	0.06	0.07	0.10	0.03	0.02	0.00	0.55
2017 With Storms, All Levels, All Causes	0.02	0.02	0.04	0.05	0.03	0.15	0.07	0.03	0.10	0.08	0.02	0.02	0.61
New Tariff Normalized, No Trans Line, All Causes	0.02	0.02	0.04	0.04	0.03	0.08	0.07	0.03	0.09	0.05	0.02	0.02	0.51
Annual Normalized, All Levels, All Causes	0.02	0.02	0.04	0.05	0.03	0.08	0.07	0.03	0.10	0.08	0.02	0.02	0.55
2016 With Storms, All Levels, All Causes	0.02	0.04	0.04	0.04	0.11	0.14	0.19	0.06	0.04	0.04	0.09	0.06	0.85
New Tariff Normalized, No Trans Line, All Causes	0.02	0.04	0.04	0.03	0.11	0.10	0.08	0.03	0.04	0.04	0.07	0.06	0.65
Annual Normalized, All Levels, All Causes	0.02	0.04	0.04	0.04	0.11	0.14	0.10	0.06	0.04	0.04	0.09	0.06	0.76

	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2015 With Storms, All Levels, All Causes	0.03	0.04	0.02	0.02	0.10	0.14	0.16	0.06	0.08	0.04	0.03	0.00	0.73
New Tariff Normalized, No Trans Line, All Causes	0.03	0.01	0.01	0.02	0.08	0.14	0.08	0.05	0.05	0.04	0.03	0.00	0.55
Annual Normalized, All Levels, All Causes	0.03	0.04	0.02	0.02	0.10	0.14	0.08	0.06	0.08	0.04	0.03	0.00	0.64
2014 With Storms, All Levels, All Causes	0.01	0.08	0.03	0.06	0.15	0.14	0.06	0.12	0.09	0.05	0.02	0.02	0.82
New Tariff Normalized, No Trans Line, All Causes	0.01	0.07	0.03	0.06	0.09	0.11	0.05	0.08	0.09	0.05	0.02	0.02	0.67
Annual Normalized, All Levels, All Causes	0.01	0.08	0.03	0.06	0.15	0.11	0.06	0.12	0.09	0.05	0.02	0.02	0.80

MAIFI - <= 5 Minutes Duration

Northwest - MAIFI

	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2018 With Storms, All Levels, All Causes	0.01	0.06	0.07	0.27	0.30	0.16	0.07	0.14	0.16	0.08	0.04	0.06	1.42
Tariff Normalized, IEEE No Trans Line, All Causes	0.01	0.06	0.05	0.07	0.17	0.11	0.05	0.08	0.06	0.04	0.03	0.03	0.75
New Annual Normalized, IEEE All Levels, All Causes	0.01	0.06	0.07	0.27	0.30	0.16	0.07	0.14	0.16	0.08	0.04	0.06	1.42
2017 With Storms, All Levels, All Causes	0.09	0.01	0.20	0.08	0.09	0.27	0.08	0.06	0.18	0.17	0.00	0.13	1.37
New Tariff Normalized, No Trans Line, All Causes	0.05	0.01	0.09	0.02	0.03	0.10	0.05	0.04	0.17	0.17	0.00	0.13	0.85
Annual Normalized, All Levels, All Causes	0.09	0.01	0.20	0.08	0.09	0.18	0.08	0.06	0.18	0.17	0.00	0.13	1.28

	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2016 With Storms, All Levels, All Causes	0.00	0.01	0.10	0.04	0.17	0.11	0.24	0.08	0.13	0.07	0.42	0.04	1.42
New Tariff Normalized, No Trans Line, All Causes	0.00	0.01	0.08	0.03	0.11	0.07	0.07	0.05	0.10	0.07	0.01	0.03	0.64
Annual Normalized, All Levels, All Causes	0.00	0.01	0.10	0.04	0.17	0.11	0.19	0.08	0.13	0.07	0.01	0.04	0.95
2015 With Storms, All Levels, All Causes	0.10	0.02	0.16	0.08	0.16	0.15	0.37	0.07	0.23	0.01	0.05	0.05	1.44
New Tariff Normalized, No Trans Line, All Causes	0.07	0.01	0.05	0.04	0.09	0.04	0.16	0.03	0.15	0.01	0.05	0.03	0.69
Annual Normalized, All Levels, All Causes	0.10	0.02	0.16	0.08	0.16	0.15	0.37	0.07	0.23	0.01	0.05	0.05	1.44

	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2014 With Storms, All Levels, All Causes	0.20	0.08	0.04	0.21	0.24	0.27	0.08	0.25	0.05	0.04	0.01	0.04	1.51
New Tariff Normalized, No Trans Line, All Causes	0.20	0.03	0.04	0.06	0.15	0.14	0.00	0.10	0.00	0.04	0.00	0.04	0.81
Annual Normalized, All Levels, All Causes	0.20	0.08	0.04	0.21	0.24	0.27	0.08	0.25	0.05	0.04	0.01	0.04	1.51

MAIFI - <= 5 Minutes Duration

Southeast - MAIFI

	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2018 With Storms, All Levels, All Causes	0.04	0.04	0.03	0.16	0.07	0.11	0.13	0.17	0.14	0.01	0.03	0.02	0.92
Tariff Normalized, IEEE No Trans Line, All Causes	0.02	0.00	0.01	0.03	0.06	0.07	0.09	0.10	0.03	0.01	0.02	0.00	0.44
New Annual Normalized, IEEE All Levels, All Causes	0.04	0.04	0.03	0.11	0.07	0.11	0.13	0.17	0.04	0.01	0.03	0.02	0.78
2017 With Storms, All Levels, All Causes	0.00	0.02	0.03	0.07	0.03	0.18	0.15	0.05	0.04	0.15	0.01	0.00	0.73
New Tariff Normalized, No Trans Line, All Causes	0.00	0.02	0.00	0.04	0.03	0.02	0.09	0.03	0.03	0.10	0.01	0.00	0.37
Annual Normalized, All Levels, All Causes	0.00	0.02	0.03	0.07	0.03	0.18	0.15	0.05	0.04	0.15	0.01	0.00	0.73

	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2016 With Storms, All Levels, All Causes	0.05	0.00	0.10	0.03	0.02	0.05	0.26	0.26	0.21	0.03	0.05	0.00	1.05
New Tariff Normalized, No Trans Line, All Causes	0.03	0.00	0.00	0.01	0.02	0.02	0.10	0.07	0.06	0.03	0.05	0.00	0.39
Annual Normalized, All Levels, All Causes	0.05	0.00	0.10	0.03	0.02	0.04	0.22	0.26	0.21	0.03	0.05	0.00	1.00
2015 With Storms, All Levels, All Causes	0.04	0.06	0.05	0.06	0.10	0.11	0.16	0.07	0.10	0.04	0.08	0.01	0.88
New Tariff Normalized, No Trans Line, All Causes	0.00	0.00	0.01	0.03	0.02	0.05	0.03	0.03	0.06	0.04	0.04	0.00	0.32
Annual Normalized, All Levels, All Causes	0.04	0.06	0.05	0.06	0.10	0.11	0.16	0.07	0.10	0.04	0.08	0.01	0.88

	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2014 With Storms, All Levels, All Causes	0.02	0.25	0.02	0.01	0.19	0.14	0.02	0.07	0.11	0.13	0.15	0.10	1.20
New Tariff Normalized, No Trans Line, All Causes	0.01	0.01	0.00	0.00	0.07	0.04	0.02	0.04	0.05	0.08	0.00	0.02	0.34
Annual Normalized, All Levels, All Causes	0.02	0.10	0.02	0.01	0.19	0.11	0.02	0.07	0.11	0.13	0.15	0.04	0.97

MAIFI - <= 5 Minutes Duration

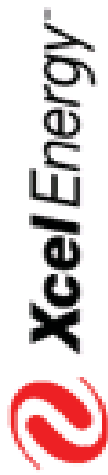
Minnesota - Customer Interruptions	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2018 With Storms, All Levels, All Causes	17,028	50,720	37,088	110,806	166,321	96,952	116,525	125,816	132,306	63,103	35,948	18,615	971,228
Tariff Normalized, IEEC No Trans Line, All Causes	14,890	45,049	31,883	70,214	145,886	86,076	106,829	93,386	105,644	58,219	26,819	13,179	798,074
New Annual Normalized, IEEC All Levels, All Causes	17,028	50,720	37,088	104,668	162,571	96,952	114,166	125,816	120,555	63,103	35,948	18,615	947,230
CES Cust Served	1,260,537	1,261,499	1,262,635	1,263,050	1,263,057	1,266,221	1,266,173	1,263,754	1,266,996	1,268,418	1,269,462	1,270,153	
2017 With Storms, All Levels, All Causes	48,438	25,199	72,370	78,526	56,089	171,914	124,532	49,070	110,614	168,822	17,302	35,011	957,887
New Tariff Normalized, No Trans Line, All Causes	43,639	25,199	55,242	51,938	44,843	83,569	111,372	44,023	105,611	101,720	17,302	35,011	719,469
Annual Normalized, All Levels, All Causes	48,438	25,199	72,370	78,526	56,089	113,347	122,624	49,070	110,614	168,822	17,302	35,011	897,412
CES Cust Served	1,253,235	1,253,916	1,254,234	1,254,354	1,254,432	1,254,973	1,254,729	1,255,562	1,256,281	1,256,880	1,258,571	1,259,394	
2016 With Storms, All Levels, All Causes	25,441	52,112	80,843	70,399	114,855	128,116	215,856	111,183	116,858	45,828	134,584	42,779	1,138,854
New Tariff Normalized, No Trans Line, All Causes	22,237	52,112	66,022	48,486	106,986	95,825	83,846	71,208	85,741	45,828	71,773	41,482	801,546
Annual Normalized, All Levels, All Causes	25,441	52,112	80,843	70,399	114,855	125,305	132,820	111,183	116,858	45,828	86,413	42,779	1,004,836
CES Cust Served	1,248,344	1,249,470	1,249,387	1,249,350	1,249,681	1,249,044	1,250,095	1,249,999	1,250,203	1,250,886	1,251,414	1,252,586	
2015 With Storms, All Levels, All Causes	53,648	30,726	55,959	48,043	127,125	150,889	273,326	87,827	129,712	42,223	51,256	23,201	1,073,935
New Tariff Normalized, No Trans Line, All Causes	44,306	5,906	33,165	38,443	98,512	127,693	151,499	73,873	95,202	42,223	41,385	20,869	773,076
Annual Normalized, All Levels, All Causes	53,648	30,726	55,959	48,043	127,125	150,889	195,595	87,827	129,712	42,223	51,256	23,201	996,204
CES Cust Served	1,240,765	1,243,499	1,244,176	1,244,298	1,243,059	1,242,418	1,242,902	1,243,049	1,243,408	1,244,577	1,245,663	1,247,112	
2014 With Storms, All Levels, All Causes	51,425	109,574	31,286	83,684	179,745	194,907	75,353	125,483	81,552	60,308	61,666	39,682	1,094,665
New Tariff Normalized, No Trans Line, All Causes	49,036	48,807	28,982	61,123	117,403	119,732	58,512	85,015	67,369	54,991	33,106	26,887	750,963
Annual Normalized, All Levels, All Causes	51,425	72,087	31,286	83,684	179,745	143,588	75,353	125,483	81,552	60,308	61,666	32,402	998,579
CES Cust Served	1,231,703	1,232,212	1,234,076	1,234,577	1,233,718	1,233,259	1,234,483	1,235,520	1,236,117	1,237,649	1,238,571	1,239,207	

Metro East - Customer Interruptions	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2018 With Storms, All Levels, All Causes	5,434	22,864	16,058	26,163	60,461	26,771	55,108	44,561	37,613	33,627	14,436	6,069	349,165
Tariff Normalized, IEEC No Trans Line, All Causes	5,434	22,864	16,058	26,163	56,711	26,771	55,108	38,388	37,613	33,627	12,145	6,069	336,951
New Annual Normalized, IEEC All Levels, All Causes	5,434	22,864	16,058	26,163	56,711	26,771	55,108	44,561	37,613	33,627	14,436	6,069	345,415
CES Cust Served	415,400	415,867	416,331	416,570	416,559	417,460	417,406	417,529	417,675	418,464	418,813	419,251	
2017 With Storms, All Levels, All Causes	23,529	10,552	23,793	29,693	26,334	30,215	56,586	17,240	27,139	84,099	5,706	5,862	340,748
New Tariff Normalized, No Trans Line, All Causes	23,529	10,552	23,793	29,693	22,105	18,646	54,678	17,240	27,139	38,693	5,706	5,862	267,278
Annual Normalized, All Levels, All Causes	23,529	10,552	23,793	29,693	26,334	18,646	54,678	17,240	27,139	84,099	5,706	5,862	327,271
CES Cust Served	412,791	413,033	413,181	413,401	413,461	413,487	413,489	413,829	413,948	414,136	414,640	414,964	
2016 With Storms, All Levels, All Causes	8,042	30,312	31,530	39,980	28,813	25,258	44,241	35,094	49,970	10,848	24,347	2,540	330,974
New Tariff Normalized, No Trans Line, All Causes	8,042	30,312	31,530	39,980	27,881	25,258	24,527	35,094	41,452	10,848	24,347	2,540	288,892
Annual Normalized, All Levels, All Causes	8,042	30,312	31,530	39,980	28,813	25,258	24,527	35,094	49,970	10,848	24,347	2,540	311,261
CES Cust Served	410,535	410,808	411,301	411,260	411,117	410,936	411,389	411,453	411,397	411,786	412,089	412,530	
2015 With Storms, All Levels, All Causes	16,105	96	18,601	18,599	37,233	35,887	113,389	36,108	44,337	13,870	15,477	15,312	365,014
New Tariff Normalized, No Trans Line, All Causes	16,105	96	18,601	18,599	37,233	32,726	84,999	36,108	41,180	13,870	15,352	15,312	330,181
Annual Normalized, All Levels, All Causes	16,105	96	18,601	18,599	37,233	35,887	84,999	36,108	44,337	13,870	15,477	15,312	336,624
CES Cust Served	408,325	408,859	409,140	408,169	408,830	408,590	408,804	408,804	408,893	409,248	409,466	410,136	
2014 With Storms, All Levels, All Causes	17,785	24,419	8,617	21,651	39,547	66,289	27,386	18,159	7,948	11,472	31,248	9,845	284,366
New Tariff Normalized, No Trans Line, All Causes	17,785	5,324	8,617	21,651	39,547	34,170	27,386	18,159	7,948	11,472	22,587	7,397	222,043
Annual Normalized, All Levels, All Causes	17,785	5,324	8,617	21,651	39,547	34,170	27,386	18,159	7,948	11,472	31,248	9,845	233,152
CES Cust Served	405,168	405,513	406,266	406,476	406,280	406,118	406,328	406,609	406,781	407,216	407,552	407,915	

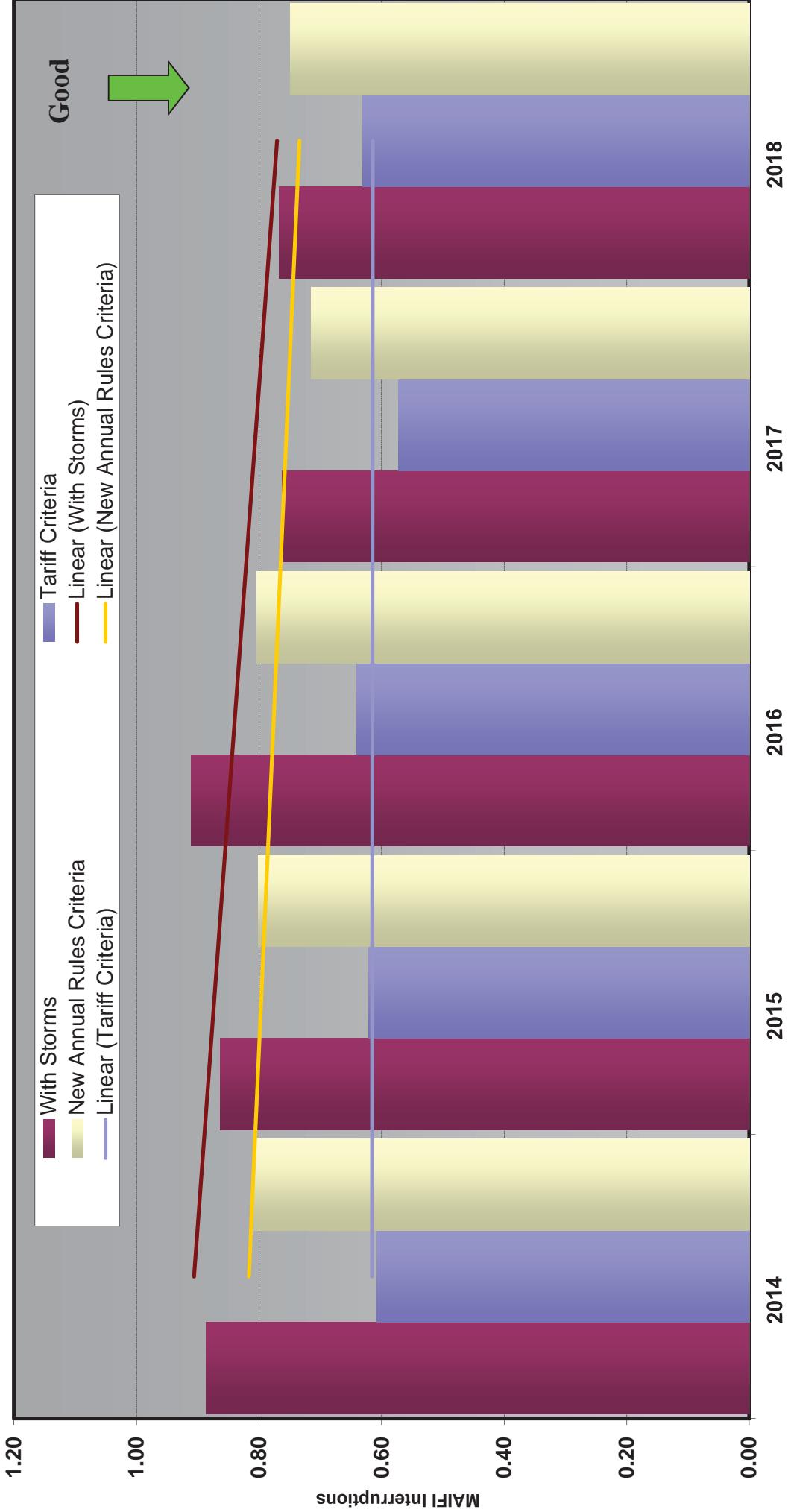
Metro West - Customer Interruptions	January	February	March	April	May	June	July	August	September	October	November	December	YTD
2018 With Storms, All Levels, All Causes	5,634	16,461	8,897	32,597	60,725	37,120	36,442	43,114	58,046	19,281	13,773	2,689	334,779
Tariff Normalized, IEEC No Trans Line, All Causes	5,634	15,033	8,897	31,479	60,725	37,120	34,083	32,924	58,046	19,281	9,258	2,689	315,169
New Annual Normalized, IEEC All Levels, All Causes	5,634	16,461	8,897	32,597	60,725	37,120	34,083	43,114	58,046	19,281	13,773	2,689	332,420
CES Cust Served	597,570	597,981	598,412	598,492	598,854	600,447	600,447	600,156	600,628	601,130	601,579	601,815	
2017 With Storms, All Levels, All Causes	13,443	11,028	21,059	30,168	14,988	86,309	39,284	18,933	57,172	45,207	10,641	13,463	361,705
New Tariff Normalized, No Trans Line, All Causes	13,443	11,028	21,059	30,168	14,988	49,924	39,284	18,933	55,280	30,413	10,641	13,463	303,409
Annual Normalized, All Levels, All Causes	13,443	11,028	21,059	30,168	14,988	49,924	39,284	18,933	57,172	45,207	10,641	13,463	325,320
CES Cust Served	594,042	594,419	594,617	594,504	594,556	595,107	594,745	595,053	595,586	595,728	596,694	597,020	
2016 With Storms, All Levels, All Causes	10,618	20,783	24,765	21,968	63,448	83,030	110,665	33,826	24,588	22,046	54,918	35,894	506,529
New Tariff Normalized, No Trans Line, All Causes	10,618	20,783	24,765	16,991	63,448	67,133	40,310	24,588	22,046	22,046	40,310	35,894	387,274
Annual Normalized, All Levels, All Causes	10,618	20,783	24,765	21,968	63,448	83,030	57,852	33,826	24,588	22,046	54,918	35,894	453,716
CES Cust Served	592,434	593,132	593,410	593,402	593,175	592,828	593,312	593,023	593,171	593,304	593,406	593,764	

	2015	2014	Northwest - Customer Interruptions												YTD
	With Storms, All Levels, All Causes	With Storms, All Levels, All Causes	January	February	March	April	May	June	July	August	September	October	November	December	
2015 With Storms, All Levels, All Causes	20,248	20,802	12,377	58,604	83,970	83,970	95,498	35,098	44,974	22,670	19,724	1,539	428,297		
New Tariff Normalized, No Trans Line, All Causes	20,026	4,566	11,263	48,212	83,970	83,970	44,452	29,636	22,777	22,670	19,724	1,539	322,141		
Annual Normalized, All Levels, All Causes	20,248	20,802	12,377	58,604	83,970	83,970	46,157	35,098	44,974	22,670	19,724	1,539	378,956		
CES Cust Served	588,110	590,082	590,398	590,516	589,627	590,066	589,851	589,987	590,525	591,304	591,872		481,788		
2014 With Storms, All Levels, All Causes	7,411	44,827	15,601	36,712	79,703	36,033	69,195	53,337	28,313	10,034	12,011		391,211		
New Tariff Normalized, No Trans Line, All Causes	7,411	38,344	15,601	32,285	64,184	12,011	49,688	53,337	28,313	10,034	12,011		101,142		
Annual Normalized, All Levels, All Causes	7,411	44,827	15,601	36,712	79,703	36,033	69,195	53,337	28,313	10,034	12,011		466,269		
CES Cust Served	583,345	583,434	584,207	584,437	584,033	583,979	584,821	585,482	585,739	586,543	587,045		587,179		
Northwest - Customer Interruptions															
2018 With Storms, All Levels, All Causes	1,198	6,639	8,612	31,935	36,360	18,364	8,792	16,827	19,251	9,246	4,400	7,474	169,598		
Tariff Normalized, IEEE No Trans Line, All Causes	907	6,639	5,767	8,789	20,908	12,801	6,423	9,496	6,688	4,362	3,456	3,820	90,056		
New Annual Normalized, IEEE All Levels, All Causes	1,198	6,639	8,612	31,935	36,360	18,364	8,792	16,827	19,251	9,246	4,400	7,474	169,598		
CES Cust Served	119,719	119,746	119,834	119,899	119,749	120,084	120,084	117,736	120,257	120,307	120,531		162,792		
2017 With Storms, All Levels, All Causes	10,977	919	24,225	9,678	10,449	32,504	9,596	6,738	21,792	20,249	1	15,664	101,142		
New Tariff Normalized, No Trans Line, All Causes	6,178	919	10,329	2,658	3,432	12,011	5,694	4,980	19,884	19,792	1	15,664	101,142		
Annual Normalized, All Levels, All Causes	10,977	919	24,225	9,678	10,449	32,504	9,596	6,738	21,792	20,249	1	15,664	152,179		
CES Cust Served	119,071	119,106	119,096	119,097	119,146	119,131	119,230	119,316	119,243	119,388	119,502		167,797		
2016 With Storms, All Levels, All Causes	93	1,005	11,840	5,177	20,353	13,458	28,226	9,706	15,535	8,776	49,329	4,289	75,295		
New Tariff Normalized, No Trans Line, All Causes	93	1,005	9,726	3,546	13,416	7,793	8,714	6,374	11,692	8,776	1,158	3,002	75,295		
Annual Normalized, All Levels, All Causes	93	1,005	11,840	5,177	20,353	12,545	21,946	9,706	15,535	8,776	1,158	4,299	112,433		
CES Cust Served	118,447	118,497	118,533	118,564	118,400	118,386	118,423	118,468	118,519	118,626	118,717		169,913		
2015 With Storms, All Levels, All Causes	12,023	2,530	18,547	9,150	18,472	17,688	44,138	7,858	27,249	1,246	5,367	5,645	80,928		
New Tariff Normalized, No Trans Line, All Causes	7,706	1,244	5,954	4,177	10,384	5,109	18,504	4,015	17,565	1,246	1,006	4,018	80,928		
Annual Normalized, All Levels, All Causes	12,023	2,530	18,547	9,150	18,472	17,688	44,138	7,858	27,249	1,246	5,367	5,645	169,913		
CES Cust Served	118,064	118,121	118,158	118,137	117,923	117,939	117,972	118,079	118,103	118,227	118,302		176,909		
2014 With Storms, All Levels, All Causes	23,872	8,856	4,717	24,352	28,058	31,658	9,557	29,170	5,782	4,684	923	5,280	94,668		
New Tariff Normalized, No Trans Line, All Causes	23,078	3,508	4,717	17,759	16,182	11,979	294	4,684	5,280	4,684	923	5,280	94,668		
Annual Normalized, All Levels, All Causes	23,872	8,856	4,717	24,352	28,058	31,658	9,557	29,170	5,782	4,684	923	5,280	176,909		
CES Cust Served	117,403	117,421	117,541	117,618	117,510	117,401	117,490	117,527	117,621	117,808	117,839		176,909		

	Southeast - Customer Interruptions												YTD
	January	February	March	April	May	June	July	August	September	October	November	December	
2018 With Storms, All Levels, All Causes	4,762	4,756	3,521	20,111	8,775	14,197	16,183	21,314	17,396	949	3,339	2,383	117,686
Tariff Normalized, IEEE No Trans Line, All Causes	2,915	513	1,161	3,783	7,542	9,384	11,215	12,578	3,297	949	1,960	601	55,898
New Annual Normalized, IEEE All Levels, All Causes	4,762	4,756	3,521	13,973	8,775	14,197	16,183	21,314	5,645	949	3,339	2,383	99,797
CES Cust Served	127,848	127,905	128,058	128,089	127,895	128,214	128,236	128,333	128,436	128,517	128,539		92,642
2017 With Storms, All Levels, All Causes	489	2,700	3,293	8,987	4,308	22,886	19,066	6,159	4,511	19,267	954	22	47,640
New Tariff Normalized, No Trans Line, All Causes	489	2,700	61	5,002	4,308	2,988	11,716	3,270	3,308	12,822	954	22	47,640
Annual Normalized, All Levels, All Causes	489	2,700	3,293	8,987	4,308	22,886	19,066	6,159	4,511	19,267	954	22	92,642
CES Cust Served	127,331	127,358	127,340	127,352	127,269	127,248	127,265	127,364	127,504	127,628	127,735		133,553
2016 With Storms, All Levels, All Causes	6,688	12	12,708	3,274	2,241	6,370	32,724	32,557	26,785	4,158	5,990	46	50,085
New Tariff Normalized, No Trans Line, All Causes	3,484	12	1	888	2,241	2,641	13,102	9,525	8,029	4,158	5,958	46	127,426
Annual Normalized, All Levels, All Causes	6,688	12	12,708	3,274	2,241	6,370	32,724	32,557	26,785	4,158	5,990	46	127,426
CES Cust Served	126,928	127,033	127,143	127,124	126,989	126,894	126,970	127,055	127,116	127,170	127,202		110,711
2015 With Storms, All Levels, All Causes	5,272	7,298	6,018	7,917	12,816	13,344	20,301	8,763	13,152	4,437	10,688	705	39,826
New Tariff Normalized, No Trans Line, All Causes	469	7,298	6,018	4,404	2,693	5,888	3,544	4,114	7,680	4,437	5,303	705	110,711
Annual Normalized, All Levels, All Causes	5,272	7,298	6,018	7,917	12,816	13,344	20,301	8,763	13,152	4,437	10,688	705	39,826
CES Cust Served	126,266	126,437	126,480	126,476	126,240	126,322	126,247	126,315	126,425	126,577	126,591		110,711
2014 With Storms, All Levels, All Causes	2,357	31,472	2,351	969	23,529	17,257	2,377	8,959	14,485	15,839	19,461	12,546	151,602
New Tariff Normalized, No Trans Line, All Causes	762	1,631	47	884	8,843	5,196	2,377	5,189	5,790	10,522	485	2,199	43,041
Annual Normalized, All Levels, All Causes	2,357	31,472	2,351	969	23,529	17,257	2,377	8,959	14,485	15,839	19,461	12,546	151,602
CES Cust Served	125,787	125,844	126,062	126,046	125,895	125,761	125,844	125,902	125,976	126,082	126,135		122,249

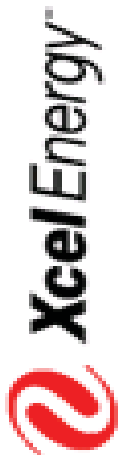


MINNESOTA MAIFI



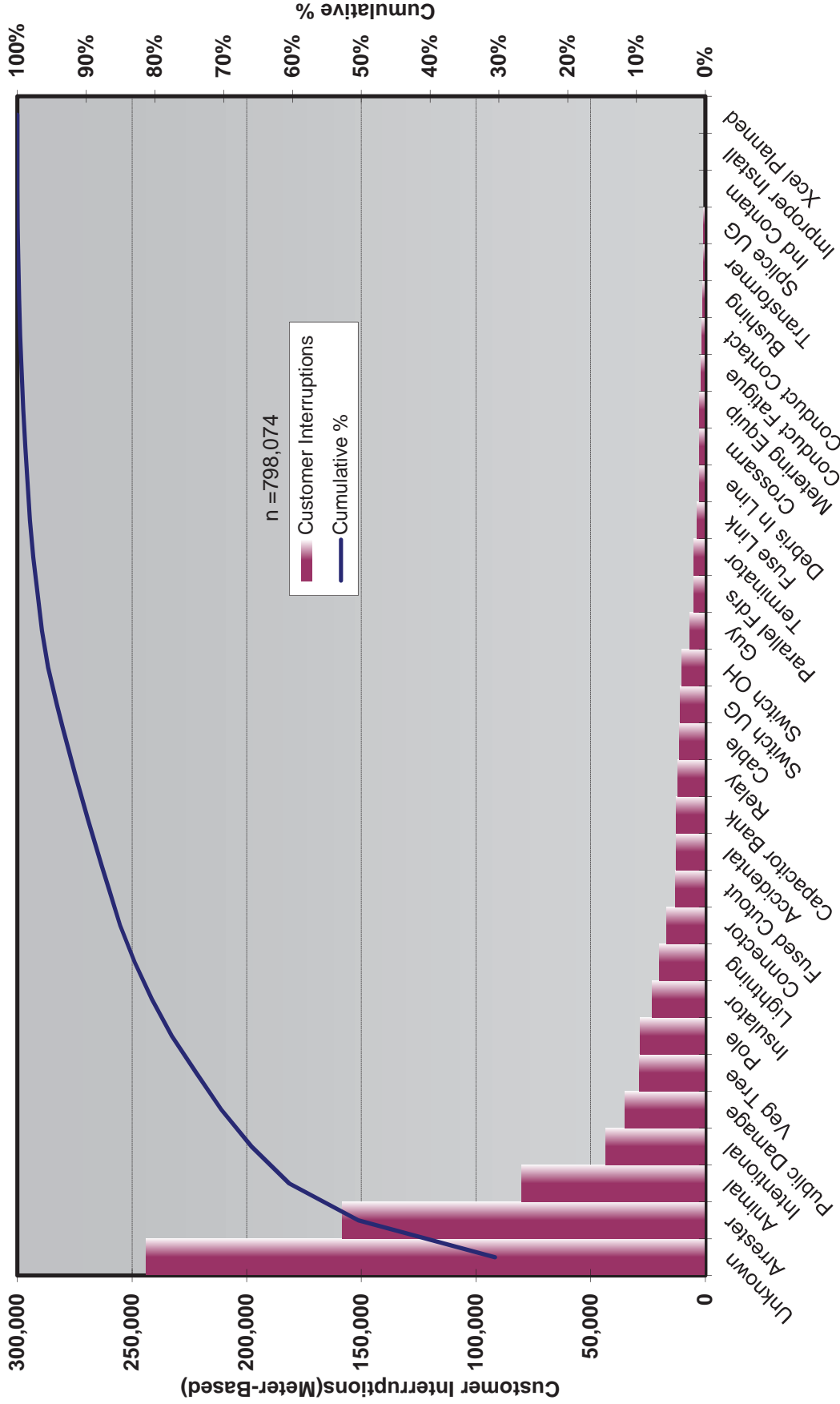
With Storms - No normalization, All Levels, All Causes
New Annual Rules - IEEE Normalization, All Levels, All Causes
Tariff - IEEE Normalization after removing Trans Lines, All Causes

Momentary events <= 5 Minutes



MINNESOTA MAIFI

2018, MN Tariff, No Transmission Lines, All Causes

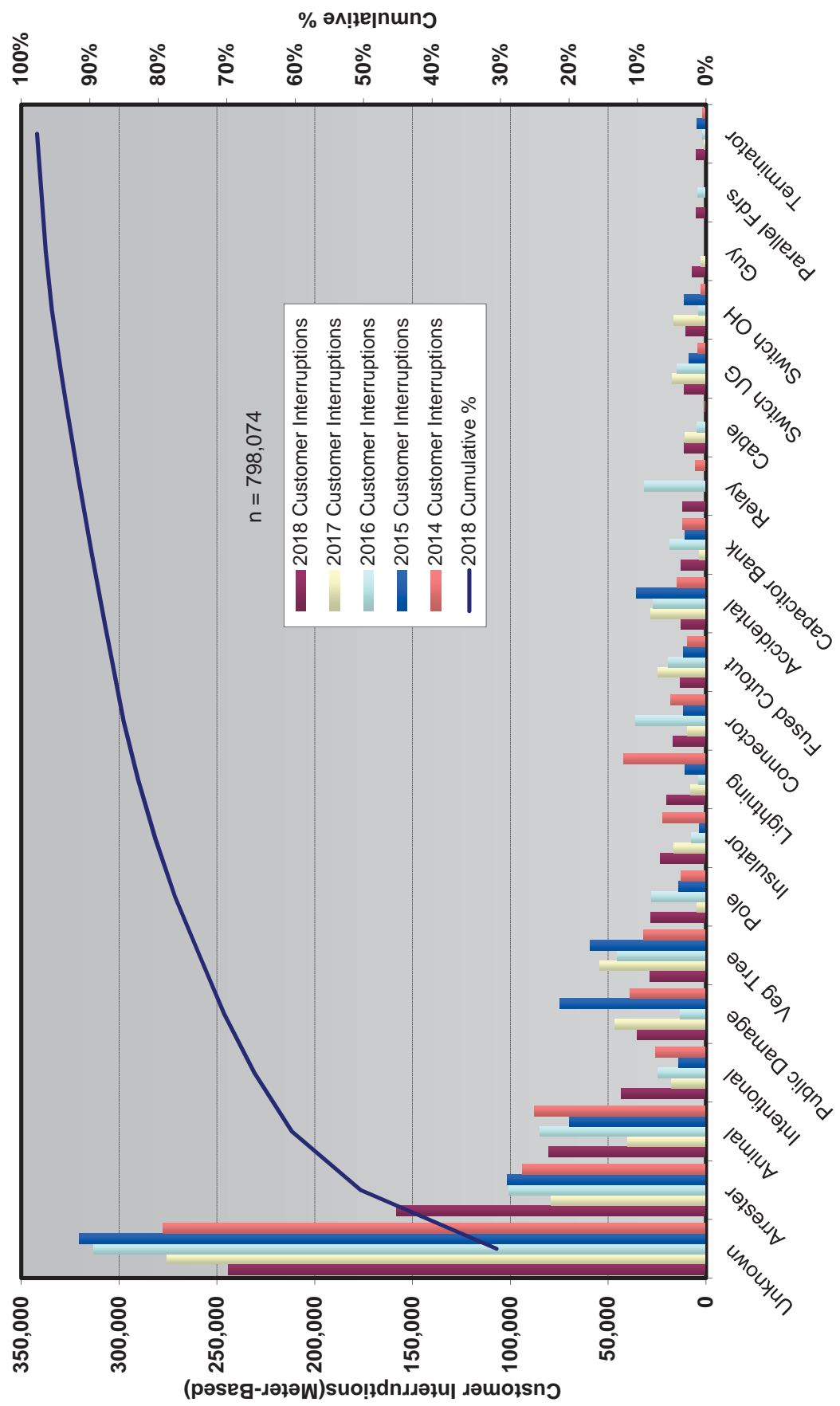
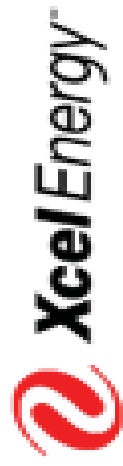


Tariff - IEEE Normalization after removing Trans Lines, All Causes

Momentary events <= 5 Minutes

MINNESOTA MAIFI

5 Year, MN Tariff, No Transmission Lines, All Causes



Tariff - IEEE Normalization after removing Trans Lines, All Causes Momentary events <= 5 Minutes

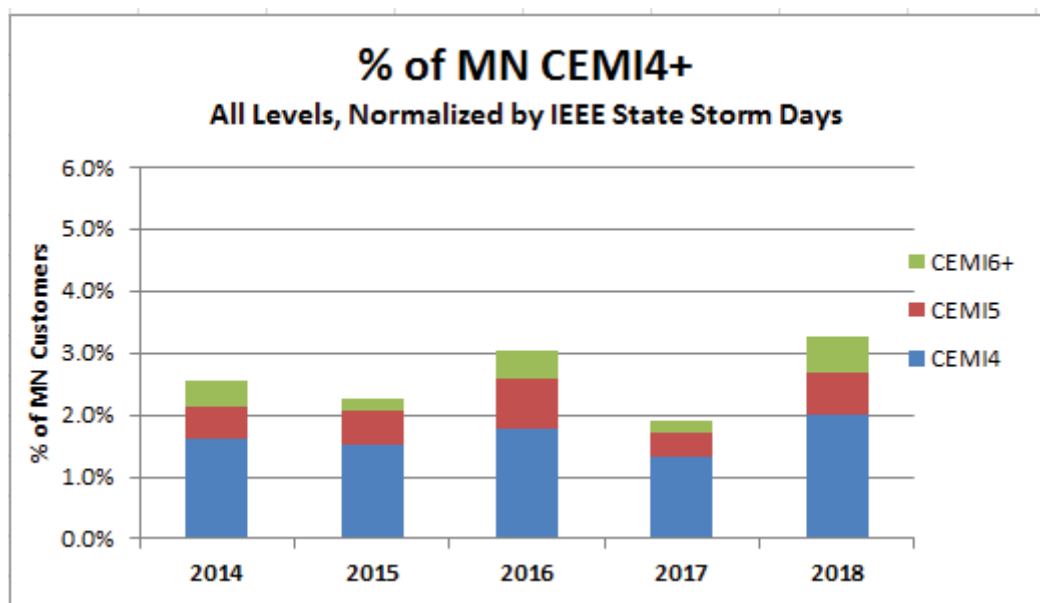
Utility	Work Resolution	Data	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec												Grand Total
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Electric	INVESTIGATE AND REMEDIATE	Order Count	316	258	303	301	259	260	332	316	247	321	255	244	3,412
		Average Days	3.32	3.46	3.22	3.25	2.99	3.11	3.80	3.03	3.21	3.44	3.38	3.21	3.29
		Min Days	1	1	1	1	1	1	1	1	1	1	1	1	1
		Max of Days	17	7	7	7	6	8	6	6	11	6	13	15	17
		StdDev of Days	1.63	1.53	1.37	1.26	1.31	1.23	1.14	1.31	1.41	1.17	1.73	1.59	1.41
	INVESTIGATE AND REFER	Order Count	22	27	24	30	18	27	21	23	18	18	11	12	251
		Average Days	3.82	3.56	3.21	3.00	3.78	3.59	3.62	3.13	3.00	3.33	3.82	3.50	3.42
		Min Days	2	2	1	2	1	1	1	1	2	2	2	2	1
		Max of Days	6	6	6	5	8	12	8	5	6	5	6	6	12
		StdDev of Days	1.40	1.53	1.53	1.05	1.66	2.17	1.50	1.36	1.28	1.14	1.40	1.45	1.49
	REMEDIATE UPON REFERRAL	Order Count					1						1	1	3
		Average Days					1.00						4.00	8.00	4.33
		Min Days					1						4	8	1
		Max of Days					1						4	8	8
		StdDev of Days													3.51
Electric Order Count			338	285	327	331	278	287	353	339	265	339	267	257	3,666
Electric Average Days			3.36	3.47	3.22	3.23	3.03	3.15	3.78	3.04	3.19	3.44	3.40	3.24	3.30
Electric Min Days			1	1	1	1	1	1	1	1	1	1	1	1	
Electric Max of Days			17	7	7	7	8	12	8	6	11	6	13	15	17
Electric StdDev of Days			1.62	1.53	1.38	1.24	1.35	1.35	1.16	1.31	1.40	1.17	1.72	1.61	1.42

Gas	INVESTIGATE AND REMEDIATE	Order Count	184	164	217	206	315	261	275	182	161	234	225	233	2,657
		Average Days	3.77	4.02	3.28	3.62	3.75	3.66	5.03	3.65	4.07	3.90	4.60	5.29	4.07
		Min Days	1	1	0	1	1	1	1	0	1	0	0	0	0
		Max of Days	17	12	10	31	17	10	11	20	9	10	12	12	31
		StdDev of Days	2.24	2.46	1.61	2.43	1.99	1.65	1.89	2.72	1.82	1.73	2.23	2.33	2.17
	INVESTIGATE AND REFER	Order Count	74	51	64	66	74	58	59	37	29	34	33	44	623
		Average Days	3.64	3.65	3.13	3.26	3.95	3.66	5.03	4.11	3.97	3.74	3.97	4.73	3.86
		Min Days	1	2	1	1	2	1	2	2	2	2	2	2	1
		Max of Days	9	12	9	6	9	8	9	7	8	11	9	9	12
		StdDev of Days	1.91	1.91	1.42	1.46	1.80	1.56	1.65	1.52	1.55	2.03	1.90	2.27	1.82
	REMEDIATE UPON REFERRAL	Order Count	55	44	48	46	56	43	27	13	11	13	12	22	390
		Average Days	4.73	4.68	4.13	4.28	3.52	4.16	3.56	2.85	3.00	4.31	2.42	5.82	4.14
		Min Days	0	1	0	1	0	0	0	1	0	1	0	1	0
		Max of Days	20	19	21	50	24	16	21	7	7	11	6	39	50
		StdDev of Days	4.38	3.83	4.14	7.86	3.50	3.68	3.76	1.95	2.19	2.81	2.23	8.06	4.72
Gas Order Count			313	259	329	318	445	362	361	232	201	281	270	299	3,670
Gas Average Days			3.90	4.06	3.37	3.64	3.75	3.72	4.92	3.68	4.00	3.90	4.43	5.25	4.05
Gas Min Days			0	1	0	1	0	0	0	0	0	0	0	0	
Gas Max of Days			20	19	21	50	24	16	21	20	9	11	12	39	50
Gas StdDev of Days			2.69	2.66	2.16	3.62	2.21	1.99	2.08	2.54	1.81	1.82	2.23	3.10	2.52
Total E & G Order Count			651	544	656	649	723	649	714	571	466	620	537	556	7,336
Total E & G Average Days			3.62	3.75	3.30	3.43	3.47	3.47	4.36	3.30	3.54	3.65	3.92	4.32	3.67
Total E & G Days Min			0	1	0	1	0	0	0	0	0	0	0	0	
Total E & G Days Max			20	19	21	50	24	16	21	20	11	11	13	39	50
Total E & G Days Std Dev			2.22	2.16	1.81	2.69	1.95	1.76	1.78	1.93	1.64	1.52	2.06	2.71	2.08

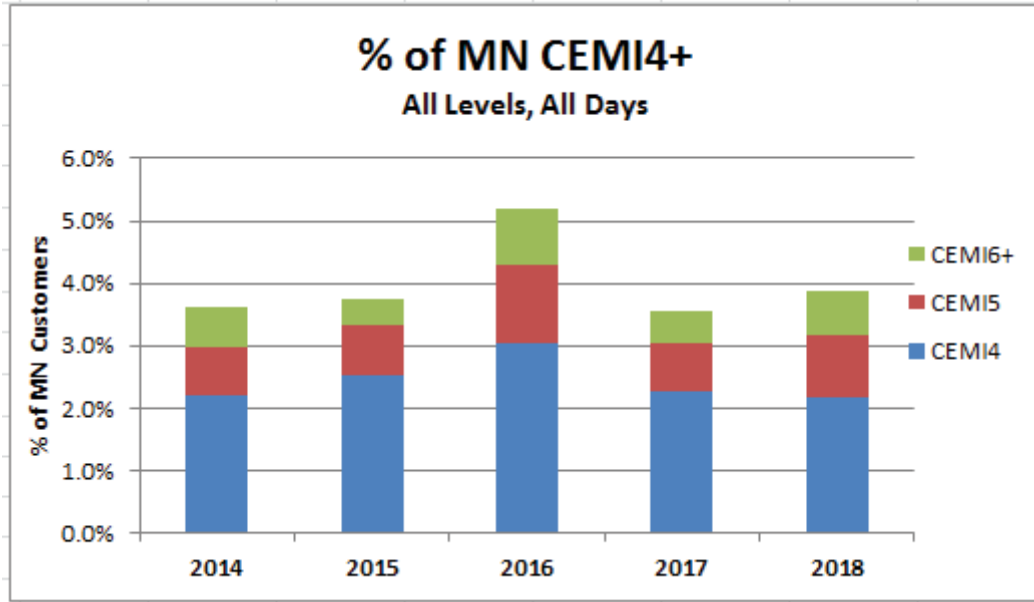
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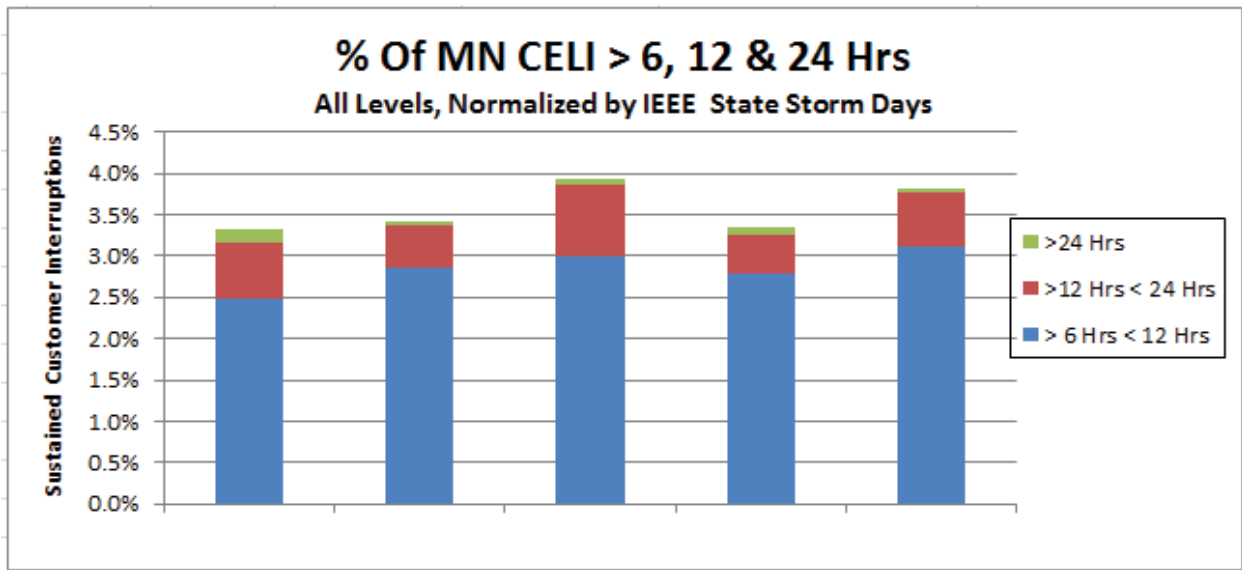


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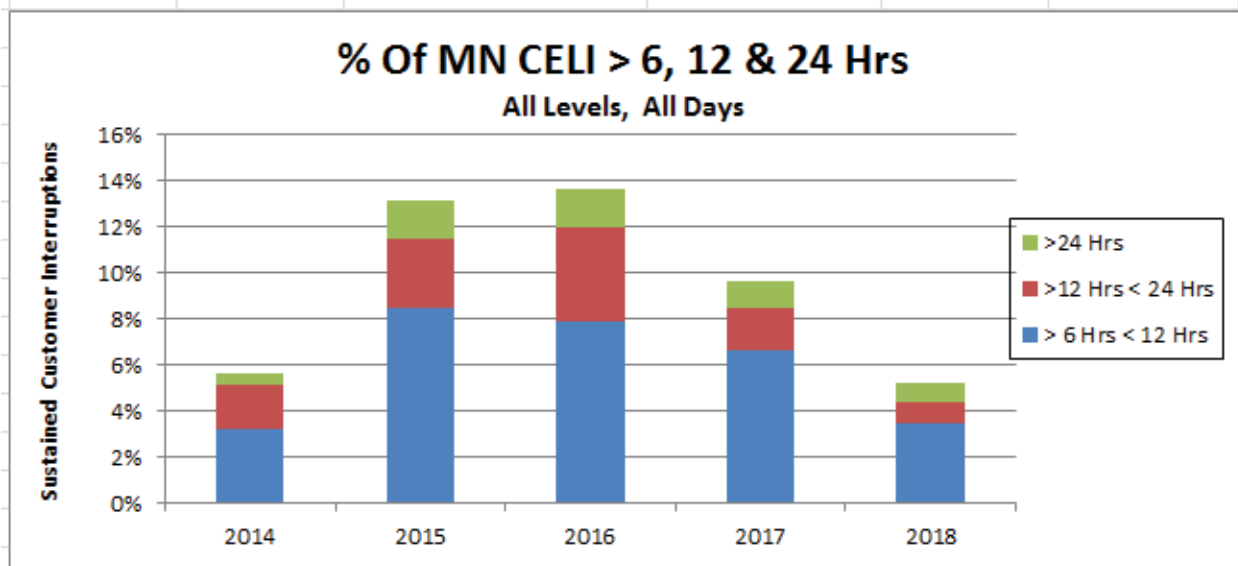
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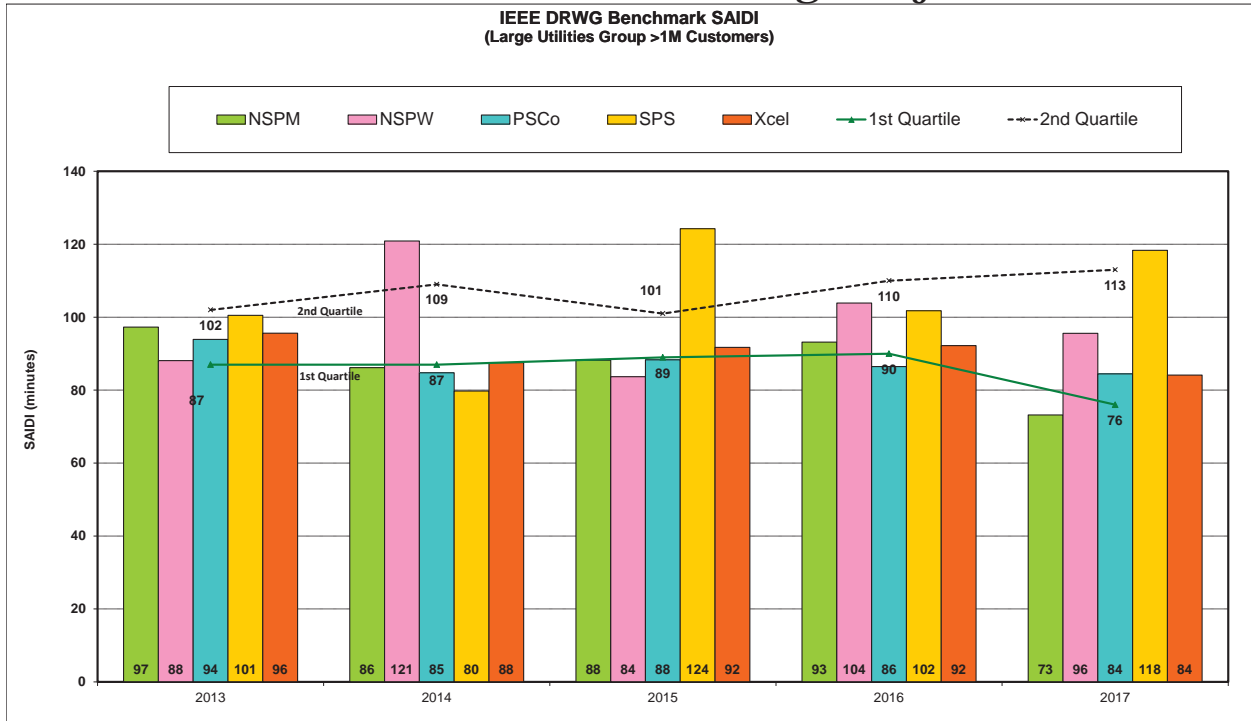
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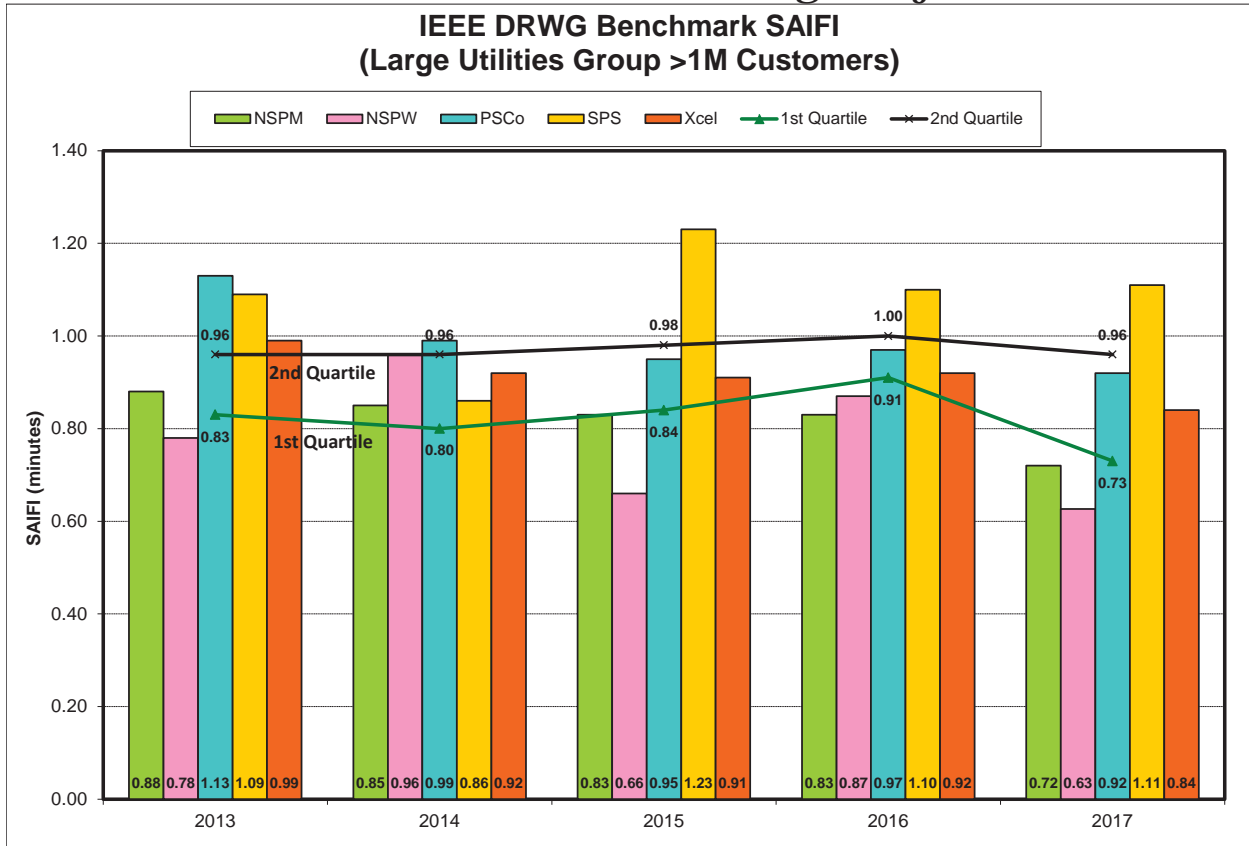
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1. 2018 Customer Satisfaction Goals and Performance

=b'UX]hcb'lc >8 'Dck Yf'gUhgZUMcb'gh X]Yg'Zcf'hYi h]]m]bXi gfrŕk \jW'ZcWgcb'
VfcUX'cj YfU'ffYU]cbg\]dL'gUhgZUMcb'Zcf'hYUj YfU'Yi h]]m]Wgca Yfzk YUgc'
a YUj fYWgca Yf'gUhgZUMcb'k \Yb'Wgca Yfg'XfYm]bhfUMk]h'hY
7ca dUbn' H\YhfUbgUMcb'g fj Yng'hUk Yi g'Yhc UggYg'ci f'dfZfa UbW
]bhfbU'mfY'Zcf'Wgca Yf']bhfUMcb'gk]h'ci f'Wgca Yf'gYj]WfYdfYgYbhU]j YgZ
ci f'=J F'gnh'a žUbX'ci f'k Yvgh" 'HUY%g'a a Uf]nYg'ci f'&S% 'Wgca Yf'
gUhgZUMcb' [cUg'UbX'dfZfa UbWU]h'YhfUbgUMcb'hdY'Yj Y" 'K Ybch'YhUu'
[cUg'fY'Zcf'LW'9bYf [mfU'gUhgZUMcb'U'g' fj YmfYg'lg'fY
gdY]W]c' B GDA 'fYg'Xbh]U'UbX'Vi gbYgg'Wgca Yfg'fW'a V]bYX"

HUY% '7i gca Yf'GUhgZUMcb; cUg'UbXB GDA 'dfZfa UbW] '8S%'

7i gca Yf'7\UbY	; cU	5W] U#dfZfa UbW
HfUbgUMcb'İ 'D'cbY5 [Ybh' 'J F' W'a V]bYX ftj YfU'gUhgZUMcbL	84.5%	82.4%
HfUbgUMcb'İ 'D'cbY5 [Ybhftj YfU'gUhgZUMcbL	85.5%	84.2%
HfUbgUMcb'İ 'J F' ftj YfU'gUhgZUMcbL	83.9%	81.2%
HfUbgUMcb'İ 'D'cbY5 [Ybhf'W' fYg' i h]cbL	87.0%	86.7%
HfUbgUMcb'İ 'K Yvftj YfU'gUhgZUMcbL	70.8%	69.7%

2. Transaction Surveys – Background

: cf'd\cbYUbX=J F' hfUbgUMcb'gZ'Wgca Yfg'fY'cZZfYX'h Ycd'cfli b]m]c' hU'Y'hY
g' fj YriU]h'YWbW'gcb'cZh'Yf'W'=#J F' i gY'İ 'cf'h'Ycd]cb'lc [YhUZ'`ck'!i d'W'
k]h']b'%cf'&X]hg'Z]h'f'h'YhfUbgUMcb"': cf'k W'hfUbgUMcb'gZ'Wgca Yfg'fY'
dfYgYbh'XUdcd'!i d'k]bX'ck 'UbX'cZZfYX'h Ycd'cfli b]m]c' d'Uf]M]dU]]b'Ug' fj Ym'
7i gca Yfg'fY'Ug' YX'hc' dfcj [XYZYXWU]cb'h'Y'Z'`ck]b| 'gWYg

- H\Y'phone agent'a Yf]WYdfYgYbh'gh YdfYWb]U'YcZWgca Yfg'k \c'gWfY'LLW
9bYf [m ž-žcf%'S'f'cd" 'Vel'Ec'b'U]h'!dc]bhgWYfY [fX]b| 'h'Yf'gUhgZUMcb'k]h'
h'Yd\cbYW"

- H\Y=J F'a YfjWYdfYgYbgh YdYVbHJ YcZWgca Yfgk\c'gWfYLW'9bYf[mU ('cf) 'fled' &Vcl Ecb UZj Ydc]bhgWYfY[UfX]b['h Yf'gUhgZUMcb i gbl 'ci f'=J F' gghYa 'lc' Wa d'Yh'Yf'fUbgUMcb"
- H\YK Wa YfjWYdfYgYbgh YdYVbHJ YcZWgca Yfgk\c'gWfYLW'9bYf[mU , ž- žcf %\$'fled" 'Vcl Ecb Uhb]dc]bhgWYfY[UfX]b['h Yf'gUhgZUMcb k]h' ci f' k YvghY" 7i gca YfgWa d'Yh'Uk Yvdccl! i d'g fj YmLZM'j]ghb['LW'9bYf[m] k YvghY"

3. *Setting 2018 Goals*

Phone Agents & IVR. =b' &S% žh Y[cUgZcf'h Y5[YbhUbX=J F' WubbYgk YfYVgYX cb'UW]j]b['UXfYMcU']bVMUgY']b'gUhgZUMcb Zca 'h Ydf]cf' mUf' hUh]g' Uddfcl]a UYm\ UZH Y]bVMUgYcZk \Uk ci 'XVYbWgUfmc' UW]j YgUhg]W' g]]b[ZWbWf\$S) 'Y YE' H']g[cU'k UgYgU]g' \XZcf'h Y5[YbhUbX=J F' WubbYg' gYdUfUhmUbXWa V]bYXk \]W'cc_ 'UVYbXcZh Y=J F' UbX5[YbhgUhgZUMcb' gWfYgi gbl 'h YgUa YXfYMcU']bVMUgYa Yh'cX'c[m]f] F' k Ugk Y] \hX* S' dYVbhi UbX5[Ybh(S' dYVbhi]b' h YWa V]bYX[cU#gWfY" Web" 'K YgYhci f' &S% [cU'hc']a d'fcj Yci f' k Yv'gUhgZUMcb Vm%' dYVbhi Zca' mUf' YbX&S% fYg']g" '5 gUhg]W' mgl]b[ZWb]a d'fcj Ya Ybh]b' &S% k ci 'X\Uj YVYb' +S', dYVbhi k \]W'k ci 'X\Uj YVYb US" dYVbhi]bVMUgY"

4. *J.D. Power Survey – Background*

>8 "Dck Yf']bX]dYbXbhima YUg fYg'fYU]cbg\]d'gUhgZUMcb UbXdYfZfa gcb[c]b[' VbWa Uf_]b['gi X]Yg'hUhUgYg' \ck i h]]hYg' \Uj YdYfZfa YX]b'fYU]cb'hc'cbY Ubch'Yf" >8 "Dck Yf']a d'Ya Yb]g'Vch' UfYgX]bh]U'UbXVi g]bYg'YWM]WgUhgZUMcb' gi Xnza YUg f]b['gUhgZUMcb k]h' Vch' Wgca Yf' g]a Yb]g'Uf'cgg]l' WM[cf]Ygcf' Xfj Yfg'cZgUhgZUMcb' 'dck Yf' ei U]m]bX'fY[U]]h'zV']b[/ 'dUa Yb]z Wa a i b]M]hcbg'z'Wf'cdfU]Y'W]h'Ybg']d'zWgca Yf' g]fj]W'UbXdf]W' 'K Yg' VgM]VYhc' h'Y>8 "Dck Yf' g' fj Ym'YWM' gY']hd'fcj]X]g'Uf'cUk i bX]f'g'UbX]b['cZci f' Wgca Yfg' UbXWb' Wa V]bY]hk]h' ch'Yf' Wgca Yf' X]U]z'g' W'Ug'ci f' f'UbgUMcbU' g' fj Yng'z'hc' X]j YcdUMcb' d'Ubg'hc']a d'fcj YgUhgZUMcb"

: cf'gY' YfU' mUf'g'zh Y7ca dUm\ Ug'g' VgM]VYXk]h' >8 "Dck Yf' hc' UWWg'h' Yi h]]h' m] VbWa Uf_]b['fYg']g'hc' \Yd'j Uf]ci g]b]h'f]bU'k cf'_ [fci dg]X]bh]ZiUbXZ'Wgcb']a d'fcj Ya Yb]g' "H']g]bZca U]cb'k Ug'bchi gYX'hc' gYh'Wgca Yf'a Yf]W'cf' [cUg]b' &S% "' G]h]b[]b' &S% žk Yi gYX'h' Y>8 "Dck Yf' fYg'X]bh]U' gi Xnrc' gYh'UbX'a YUg' fY' a Yf]W'Zcf' f]L'c]j YfU' fYg'X]bh]U' gUhgZUMcb/ f]L'gUhgZUMcb k]h']ch'U' a cbh' m]W'g] cZYWM]W] /f]L' Yd]b['Wgca Yfg']bZca YXU'ci hUb'ci h] Y/UbXf]L'dYVbHJ Y cZWgca Yfg'fYW]]b['7ca dUm'Wa a i b]M]hcb'g'cj Yf' dUg'h'fY'a cbh'g"

LW'9bYf[m
Gfj jWE i U]mFYdcfh&S%
7i gca Yf'GUhgZUMcb

DI 6@=7'8C7I A9BH
BCHDI 6@=7'85H5 < 5G699B '9L7=C98

8cWYhBc"9SS&A !% !SSSS
5HUWa YbhFZDUY' 'cZ(

HUVY&XIU'gfYgXYbhU'Wgca Yf'gUhgZUMcb'cj YfUzUg'kY'UgVnMM[cfm#Xfj Yf'
Zcf'B GDA 'jb'&S% "H\YdYfVbh'Yfub_'lgB GDA Ńdclh'cb'k]h]b'Uddfcl]a UYm
*S'i h]hYg']b'hY">8 "Dck Yf'gi XnhUhhY7ca dUbnWccgYg'hc'VbWa Uf_']hgYZ
U Ubg'i'5gUb'Yl Ua d'YzUdYf'fub_'cZ) ('dYfVbh'Ykci 'Xa YUb'hUhB GDA '\UgU
\]\Yf'WfYhUb) ('dYfVbh'cZh'YdYf'gYh'

HUVY&'>8 "Dck Yf'F YgXYbhU'9'Ym]WGUhgZUMcb'Zcf'B GDA 'jb'&S%'

DFCH97H98'85H5'69; =BGA'

&S% FYgXYbhU'	=bXI' GWfY	DYf' DYfVbh'Y Fub_'
Cj YfU'7i gca Yf'GUhgZUMcb'=bXI'	+ ' - '	
Dck Yf'E i U]mY' FY]U]]m		
Df]W'		
6]]b[/ 'Dfa Ybh		
7cfdcfUY'7]hnybg'd'		
7ca a i b]W]cbg'		
7i gca Yf'Gfj]W'		

A DFCH97H98'85H5'9B8QQ

LW'9bYf[m
Gfj jWE i U]mFYdcfh&S%
7i gca Yf'GUhgZUMcb

DI 6@=7'8C7I A9BH
BCHDI 6@=7'85H5 < 5G699B '9L7=C98

8cWYhBc"9SS&A !% !SSSS
5HUWa YbhFZDUY('cZ(

HUVY' XHU]gga U`#a YXji a `Vi gbygg'Wgca Yf'gUhgZUMcb Zfca `hY&S% '>8"
Dck Yf`Vi gbygg'gi Xn`H`YHUVY]gUWa V]bU]cb`cZB GDA `UbXB GDK `Wgca Yf`
ZYYXUW/^ck Yj Yfzh YgWfYgUfYdfYXca]bUbhmUgYXcb`B GDA `Wgca Yf'g`

HUVY' .>8"Dck Yf`Ga U`#A YXji a `6i gbygg'9`YMF]W
GUhgZUMcb Zf`B GDA `]b`&S%`

DFCH97H98 '85H5'69; =B CA`

&S%`Ga U`#A YXji a `6i gbygg'	=bXI` GWfY	DYf` DYfWbh`Y FUb`
Cj YfU`7i gca Yf'GUhgZUMcb`=bXI`	+*(`	
Dck Yf`E i U]m` FY]U]]hm`		
Df]W		
6]`]b[/ `DUfa Ybh		
7cfdcfUY7]hnYbg`d`		
7ca a i b]M]cbg`		
7i gca Yf`Gfj]W		

A DFCH97H98 '85H5'9B 8QQ

HUVYg&UbX' `fYa Uf`_YXBCB !DI 6@=7 `Ug`XYZ]bYXVm`A]bb"GUh`Y`% " +zg VX`
%M` H`Y]bZfa U]cb`Wbh]bYX]b`h`YgYHUVYg]gZfca `Ug`VgM]dhcb`k]h`>8`
Dck Yf`"6YWM`gYh`]g]bZfa U]cb`Xf]j`Yg]bXYdybXbhYw]bca]W]Ui`YZfca `bch
V]b[[`YbYU`m`bck`b`lcZ`UbX`bchV]b[`fYU]m]gM]H]bU]VYVmdfcdYf`a`YubgVn`
ch`Yf`dYfgcbg`k`c`Wb`c`M]b`W]bca]W]Ui`YZfca `]hgX]gW]g`fYcf`i`gZL`W`9bYf[m`
a`U]b]b]bg`h`]g]bZfa U]cb`Ug`UhfUXY`gM]hidi`fg`Ub]hc`A`]bb"Fi`Y+,`&`"S`SSzg`Vd`"

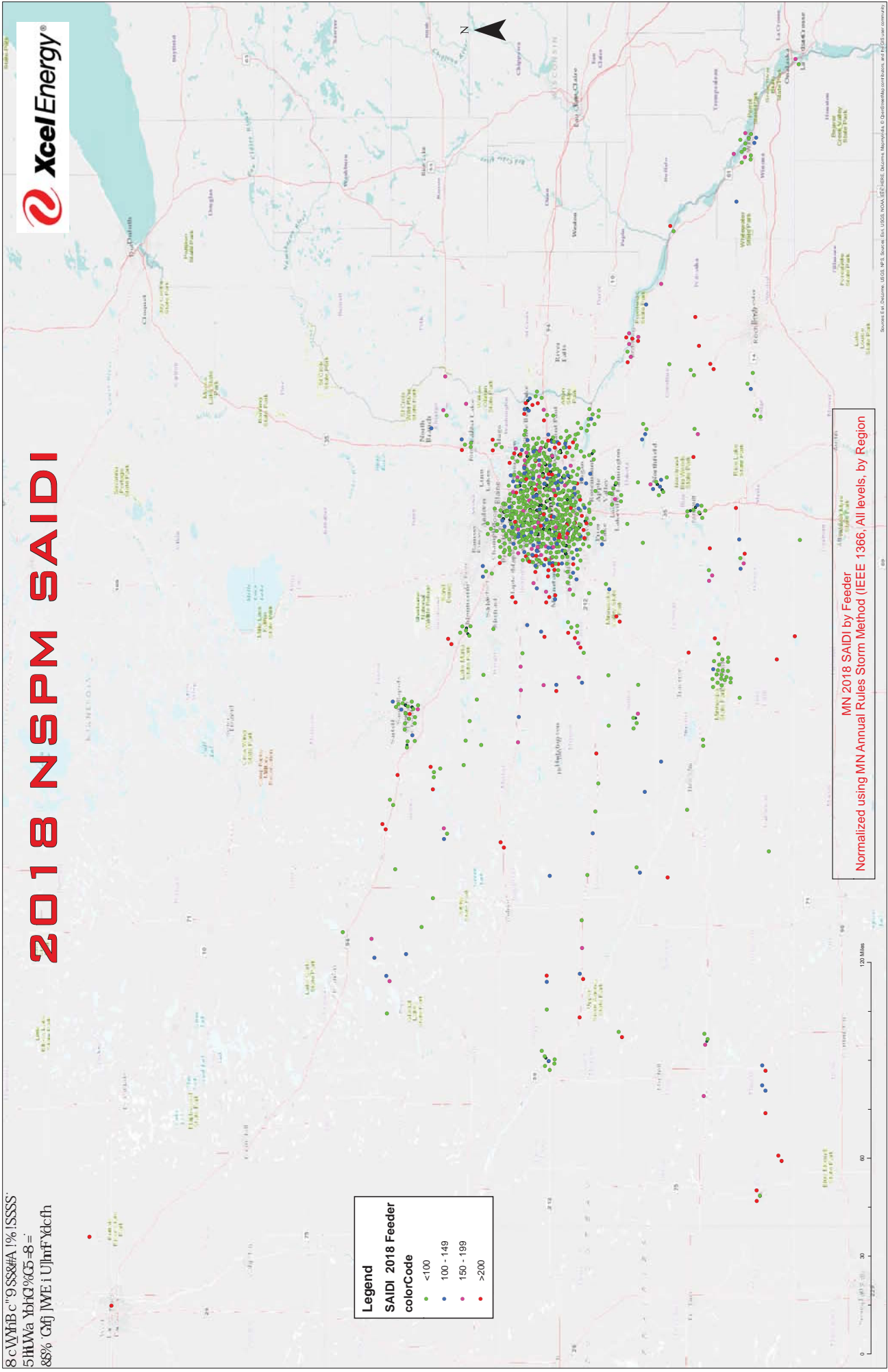
8cWnBc"9SS88#A 1%ISSSS
5HWa Ybrd%G5-8'
88% Gxf JWE i UJnrfYdcfh

2018 NSPM SAIDI



Legend
SAIDI 2018 Feeder
colorCode
<100
100 - 149
150 - 199
>200

MN 2018 SAIDI by Feeder
Normalized using MN Annual Rules Storm Method (IEEE 1366, All levels, by Region)



Source: En Route, GIS, WFS, Source: SA, USGS, NOAA, SDI, HERE, Garmin, Mapbox, © OpenStreetMap contributors, and the GIS user community

79FH =75H9 C: G9FJ=79

=ž@nbYhY'Gk YIž\YfYmMhZrh Uh=\Uj Yh\lgXhngYj YXWd]Yg'cZhY'ZcfY[c]b[
XcWa Ybhc b'h YUHUWYX`]gicZdfgcbg"

ll VmXdcg]h]b['Uhi YUbXWffYmWdnh YfYcZdfcdYf`m]bj YcdYX
k]h`dcgUj YdUX]b'hYI b]hXGhng'a Uj`Ua]bbYdc`]gž
A]bbYgchU'cf`

ll VmYmfc]WZ]b["

A DI 7'8cWYhBc.`9SS&#A !%!SSSS`

A]gW`UbYci g9`Ymf]WgYj]W@]gi

8 UHXh]g%g]XhrcZ5df]`&S% "

#g#`

SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS`

@nbYhY'Gk YIh

FY[i `Ucfn5Xa]b]gfUcf`

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