COMMERCE DEPARTMENT

October 2, 2017

Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

RE: **Comments of the Minnesota Department of Commerce, Division of Energy Resources**
Docket No. G004/D-17-450

Dear Mr. Wolf:

Attached are the Comments of the Minnesota Department of Commerce, Division of Energy Resources (Department), in the following matter:

Great Plains Natural Gas Co.'s (Great Plains) 5-Year Depreciation Study.

The petition was filed on June 1, 2017 by:

Tamie A. Aberle
Director of Regulatory Affairs
Great Plains Natural Gas Company
705 West Fir Avenue
P.O. Box 176
Fergus Falls, MN 56538-0176

The Department recommends **approval** and is available to answer any questions the Minnesota Public Utilities Commission may have.

Sincerely,

/s/ CRAIG ADDONIZIO
Financial Analyst

CA/lt

COMMERCE DEPARTMENT

# Before the Minnesota Public Utilities Commission

## Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. G004/D-17-450

## I. SUMMARY OF THE GREAT PLAINS' PROPOSAL

On June 1, 2017, Great Plains Natural Gas Company, a Division of MDU Resources Group, Inc. (Great Plains or the Company) filed a petition (Petition) with the Minnesota Public Utilities Commission (Commission) requesting approval of depreciation parameters and rates determined in a five-year depreciation study (2017 Depreciation Study) reflecting plant and reserve balances as of December 31, 2016. In its 2017 Depreciation Study, Great Plains analyzed the retirement and salvage experiences of its plant accounts and, as a result, is proposing a number of changes to its service lives and salvage rates. The Company stated that the application of the proposed lives and salvage rates to December 31, 2016 plant and reserve balances results in estimated 2017 depreciation expense of $2,087,640, or $39,719 more than 2017 depreciation expense would be under current depreciation rates. The proposed depreciation parameters yield a composite depreciation rate of 4.31 percent for 2017, or 0.08 of a percentage point lower than the composite depreciation rate yielded by currently approved depreciation parameters (4.23 percent).

## II. DEPARTMENT ANALYSIS

The Department examined Great Plains' Petition and 2017 Depreciation Study for compliance with filing requirements and previous Commission Orders, and for the reasonableness of the proposed depreciation parameters and rates.

### *A. COMPLIANCE WITH FILING REQUIREMENTS AND PRIOR COMMISSION ORDERS*

Minnesota Statutes Section 216B.11 and Minnesota Rules, parts 7825.0500-7825.0900 require public utilities to seek Commission certification of their depreciation rates and methods. Utilities must use straight-line depreciation unless a different method can be justified. Additionally, utilities must file depreciation studies at least once every five years, and must review their depreciation rates annually to determine if they are generally appropriate. When utilities use the average service life technique to depreciate group property accounts, the life and salvage factors, as well as the resulting depreciation rates, remain unchanged between studies. When companies choose the remaining-life technique for depreciating group property accounts, as Great Plains does, the underlying life and salvage factors may not change, but

depreciation rates are adjusted annually to reflect the effect of the passage of time on remaining lives, as well as the impact of plant additions and retirements. Annual depreciation study updates are required when the remaining-life technique is employed to allow the Commission the opportunity to approve changes in depreciation rates. Once certified by order, depreciation rates remain in effect until the next certification.

Great Plains employs a straight-line depreciation method and files annual depreciation studies with the Commission. Per Great Plains' 2016 Jurisdictional Annual Report, the Company used the depreciation rates approved in Docket No. G004/D-15-527 to calculate depreciation expense in 2016. While these rates were intended to be in effect during 2015 only, Great Plains' 2016 depreciation rates, proposed in Docket No. G004/D-16-466 (the 2016 Depreciation Docket), were not approved until March 29, 2017, not in time for use during 2016. Thus, the Department concludes that Great Plains' met its requirement to use its most-recently approved depreciation rates to calculate depreciation expense in 2016. The Department concludes that Great Plains' 2017 Depreciation Study meets all relevant filing requirements.

The Company has also complied with the requirement to propose depreciation rates that are effective January 1, 2017. The Commission's Order dated March 21, 2007 in Docket No. G004/D-06-700 required that all future remaining life depreciation and amortization studies be effective on January 1 of the year for which the study is performed starting with the depreciation study performed for year-end 2007. Great Plains' 2017 Depreciation Study appropriately proposes depreciation rates to be effective January 1, 2017 based upon December 31, 2016 plant and reserve balances.

*B. REASONABLENESS OF THE PROPOSED REMAINING LIVES AND NET SALVAGE RATES*

Relative to Great Plains' currently-approved average service lives, the proposed average service lives represent no change for many plant accounts, small changes (five years or fewer) for several accounts, and larger changes for two accounts. Most of the proposed average service lives are based on the statistical analysis of the Company's retirement experiences by plant account contained in Section 5 of the 2017 Depreciation Study. For these accounts, the average service life is used in combination with the age of the property booked to that account to derive the account's remaining life, as shown in Section 6 of the 2017 Depreciation Study. The proposed remaining lives for several accounts, are based on other factors. For example, the proposed remaining lives for Accounts 376.11 Plastic Mains – PVC and 380.11 Plastic Services – PVC, are based on Great Plains' ongoing PVC replacement program, intended to eliminate all PVC pipes from the Company's system over the next ten years.

Relative to currently-approved salvage rates, the Company's proposed salvage rates represent no change for many accounts, changes of five percentage points or fewer for three accounts, changes of ten percentage points for three accounts, and one large change of 40 percentage points.

The Department has reviewed Great Plains' life analyses and concludes that the Company's proposed average service lives and remaining lives are reasonable. The Department has also reviewed Great Plains' salvage analysis and concludes that its proposed salvage rates are reasonable, as well. The Department provides additional discussion of the proposed depreciation parameters of selected plant accounts below.

*1. Account 376.00 Steel Mains*

Great Plains has proposed a nine-year increase in the average service life for Account 376.00 Steel Mains, from 54 years to 63 years. Due to the age of the property included in this account, this proposed increase in average service life produces a 7.2-year increase in the account's remaining life, relative to the remaining life approved in Great Plains 2016 Depreciation Docket. The longer remaining life, in turn, results in a decrease in annual depreciation expense of $33,000 for Account 376.00.

In reviewing the Service Life Analysis for Account 376.00 included in Section 5 of the 2017 Depreciation Study, the Department noted that the data reflecting the Company's historical retirement experience had changed from Great Plains' prior five-year depreciation study.[1] In its response to Department Information Request (IR) No. 11, Great Plains explained that the retirement data in its prior five-year depreciation study contained errors.[2] Account 376 includes several sub-accounts, including 376.00 Steel Mains, 376.10 Plastic Mains, 376.11, PVC Mains, etc., and retirements were recorded in Account 376.00 Steel Mains that should have been recorded in different sub-accounts. In the 2017 Depreciation Study, the errors were corrected and the retirements were moved to the correct sub-accounts. The longer proposed average service and remaining lives result in part from these corrections.

Based on Great Plains' explanation of the changes in the data underlying its life analysis for Account 376, the Department concludes that the Company's proposed average service life and remaining life are reasonable.

[1] See Docket No. G004/D-12-565.
[2] See Department Attachment 1.

*2. Account 378.00 Measuring and Regulating Station Equipment - General*

Great Plains' proposed a five-year remaining life for Account 378.00 Measuring and Regulating Station Equipment – General, nearly 17 years shorter than the remaining life approved for the account in the 2016 Depreciation Docket. This decrease, in combination with a small proposed change in the account's salvage rate, would result in a more than five-fold increase in annual depreciation expense, from $11,000 to $63,000.

Great Plains' proposed remaining life for the account is not based on a statistical analysis of the Company's retirement experience, as it has been in the past. Rather, the proposed remaining life is tied to the Company's PVC replacement program. As explained on pages 1-3 and 1-4 of the 2017 Depreciation Study and in the Company's response to Department IR No. 2, Great Plains' distribution system currently operates at two different pressures, 50 pounds per square inch (PSI), and 15 PSI. [3] The elimination of PVC from the system will eliminate the need to operate at 15 PSI and allow the Company to up-rate its entire system to 50 PSI. Operating at a uniform pressure behind Great Plains' town border stations will eliminate the need for regulating stations behind the town border stations. Therefore, the Company plans to remove these regulating stations from service upon completion of its PVC replacement program.

Based on Great Plains' explanation that the equipment will no longer be needed upon completion of the PVC replacement program, the Department concludes that Great Plains' proposed remaining life for Account 378.00 is reasonable.

*3. Account 381 Meters & Installations*

Great Plains proposed a remaining life of 7.01 years for Account 381 Meters & Installations. The Company explained on page 1-4 and 1-5 of the 2017 Depreciation Study that as it visits customer sites as part of its PVC replacement program, it is also installing new meter bars and new house regulators. At these visits, meters of vintage 2000 or newer are being transferred to the new meter bar and reinstalled, while meters of vintage 1999 or older are being replaced, returned to the Company's Meter Shop, and tested. These older meters are being retired at a rate of approximately 70 percent, and approximately 30 percent are being reinstalled at new sites. The proposed remaining life for Account 381 Meters & Installations is a weighted average of the expected remaining lives of (1), the 70 percent of meters of vintage 1999 and earlier, that are expected to be retired, (2) the 30 percent of meters of vintage 1999 and earlier that are expected to be reinstalled, and (3) the meters of vintage 2000 and later. Great Plains' provided the calculation of its proposed remaining life in its response to Department IR No. 3.[4]

[3] See Department Attachment 2.
[4] See Department Attachment 3.

The Department reviewed Great Plains' calculations and concludes that the proposed remaining life for Account 381 is reasonable.

*4. Account 383 House Regulators*

Beginning with the Company's 2012 depreciation filing, in Docket No. G004/D-12-565, and in each depreciation study since, Great Plains' has proposed to set the remaining life for Account 383 House Regulators equal to that of Account 381 Meters & Meter Installations based on its prediction that comparable numbers of meters and regulators would have to be replaced pursuant to the switch to automated meter reading.[5] Consistent with this recent practice, the Company proposed the same remaining life for both accounts in its Petition. However, as described above, Great Plains has been able to reuse a number of its older meters, and thus is retiring fewer meters than it is house regulators, implying that the expected remaining lives for the two accounts may be different.

In its response to Department IR No. 4, the Company developed an independent estimate of Account 383's expected remaining life of 6.1 years.[6] Relative to Great Plains' proposed remaining life of 7.01 years, this shorter life would result in an increase in depreciation expense of only $9,000. Given the small effect of using the shorter life, as well as the fact that the meter and regulator replacements are occurring as part of the same program, the Department concludes that it is reasonable for Great Plains to continue to use the same remaining life for Accounts 381 and 383, and that the Company's proposed remaining life for Account 383 is reasonable.

*5. Account 396.00 Power Operated Equipment*

As explained on page 1-5 of the 2017 Depreciation Study, the Company is currently receiving exceptionally high gross salvage upon retirement and replacement for property booked to Account 396.00 pursuant to an equipment supplier program, and that this high gross salvage is expected to continue into the foreseeable future. Based on this, Great Plains proposed to increase the salvage rate for this account from positive 25 percent to positive 65 percent. The Company has also proposed to shorten the average service life for property in this account from eight years to six years, which results in remaining life of 4.18 years. The Company stated that the high salvage rate enables it to rapidly replace much of the equipment booked to this account, which is consistent with its proposal to shorten the account's life.

[5] See Great Plains' 2012 Depreciation Study in Docket No. G004/D-12-565, pages 1-5 and 1-6.
[6] See Department Attachment 4.

The combination of life and salvage rate changes would reduce depreciation expense for Account 396.00 by approximately $60,000, and result in *negative* annual depreciation expense.

Great Plains' proposed salvage rate is supported by the salvage analysis for the account contained in Section 7 of the 2017 Depreciation Study. The proposed remaining life is also supported by both the life analysis for the account contained in Sections 5 and 6 of the 2017 Depreciation Study as well as the Company's stated intention to replace much if its equipment to take advantage of the high salvage rate. The Department concludes that the proposed depreciation parameters are reasonable.

*C. PLANT AND RESERVE ACTIVITY AND BALANCES*

Great Plains' plant activity, accrual rates, and reserve ratios for all of its plant accounts for the last five years are presented below:

**Great Plains Natural Gas Company**
**Reserve Ratio Summary**
**2012-2016**
**($)**

| Year | Increase in Plant | Gross Plant Balance | Annual Depr. Provision | Accrual Rate | Increase in Reserve | Reserve Balance | Reserve Ratio |
|---|---|---|---|---|---|---|---|
| 2016 | 6,029,130 | 54,384,389 | 2,073,206 | 3.81% | 2,196,537 | 29,151,467 | 53.60% |
| 2015 | 6,894,986 | 48,355,259 | 1,828,985 | 3.78% | 993,921 | 26,954,930 | 55.74% |
| 2014 | 2,984,892 | 41,460,273 | 1,515,365 | 3.65% | 942,482 | 25,961,009 | 62.62% |
| 2013 | 2,939,941 | 38,475,381 | 1,404,487 | 3.65% | 1,134,601 | 25,018,527 | 65.02% |
| 2012 | 1,815,776 | 35,535,440 | 1,491,215 | 4.20% | 776,629 | 23,883,926 | 67.21% |

Source: Great Plains' Depreciation Studies

Great Plains' accrual rate remained largely unchanged from 2015 (3.78 percent) to 2016 (3.81 percent). The Company's overall reserve ratio has decreased steadily over the last five years, from 67.21 percent in 2012 to 53.60 percent in 2016. This decrease is consistent with the Company's increasing investments in it system, as evidenced by its increasing gross plant balance.

## III. CONCLUSIONS AND RECOMMENDATIONS

After review, the Department concludes that the depreciation parameters proposed in Great Plains' 2017 Depreciation Study and the resulting depreciation rates are reasonable. The Department recommends that the Commission:

1. approve the depreciation parameters and depreciation rates proposed in Great Plains' 2017 Depreciation Study; and

2. require Great Plains to file its next depreciation study by June 1, 2018.

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**Minnesota Department of Commerce**
**Division of Energy Resources**
**Information Request**

| | | | |
|---|---|---|---|
| Docket Number: | G004/D-17-450 | ☐Nonpublic | ☒Public |
| Requested From: | Tamie A. Aberle/Travis Jacobson<br>Great Plains Natural Gas Co. | Date of Request: | 8/23/2017 |
| Type of Inquiry: | Financial | Response Due: | 9/4/2017 |
| Requested by: | Craig Addonizio | | |
| Email Address(es): | craig.addonizio@state.mn.us | | |
| Phone Number(s): | 651-539-1818 | | |

**Request Number:** **11**
Topic: Account 376 ASL Survivor Curve
Reference(s): Petition, pages 5-5 and 5-6; Response to IR No. 5

**Request:**

a. Great Plains' prior five-year depreciation study included in an analysis of Account 376.00 with a placement years band of 1966-2011. In the current study, the placement years band is 1960-2016. Was the placement data for years 1960-1965 available at the time of the prior study? If so, please explain why it was excluded last time, but included this time.

b. Great Plains' prior five-year depreciation study included in an analysis of Account 376.00 with a retirement experience band of 1966-2011 and placement years band of 1966-2011. In comparing the data in that analysis to the data in the analysis of Account 376.00 in the current study, the Department noted that the "$ Retired During the Interval" decreased for the majority of the age intervals from 0.0-0.5 to 44.5-45.5." The Department does not understand how that is possible, given that the retirement and placement bands in the current study fully include the bands in the prior study. For example, the age interval 12.5-13.5 in the prior study experienced $11,750.67 in retirements versus only $2,753.96 in retirements in the current study, a decrease of nearly $9,000. Please explain the change.

**Response:**

a. No, only the 1966-2011 band was available at the time of the prior five-year depreciation study. During 2016, within Account 376.00, 1960 vintage investments related to 8-inch Steel pipe for Crookston were recorded on the Company's plant in service records. Accordingly, in the preparation of the current depreciation study analysis through 2016, the range of the full placement band was 1960-2016 as opposed to the earlier study starting data of 1966.

To be completed by responder

Response Date: September 1, 2017
Response by: Travis Jacobson
Email Address: travis.jacobson@mdu.com
Phone Number: 701.222.7855

**Minnesota Department of Commerce**
**Division of Energy Resources**
**Information Request**

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| Phone Number(s): | 651-539-1818 | | |

b. Subsequent to the completion of the 2011 comprehensive depreciation study, it was identified that several of the overall retirements for Account 376 were not correctly categorized within the sub-accounts underlying the total Account 376. Accordingly, in assembling the depreciation database for the 2016 depreciation study preparation (plus the actuarial life analysis/observed life tables), the applicable Account 376 subaccounts for the affected retirements were edited to the appropriate sub-accounts of Account 376. While the changes between the Account 376 sub-accounts were a net zero amount, the edits did result in age interval retirements differences between the various Account 376 property group sub-account life tables for the 2011 and 2016 reports.

To be completed by responder

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**Minnesota Department of Commerce**
**Division of Energy Resources**
**Information Request**

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|---|---|---|---|
| Docket Number: | G004/D-17-450 | ☐Nonpublic | ☒Public |
| Requested From: | Tamie A. Aberle<br>Great Plains Natural Gas Co. | Date of Request: | 7/18/2017 |
| Type of Inquiry: | Financial | Response Due: | 7/28/2017 |
| Requested by: | Craig Addonizio | | |
| Email Address(es): | craig.addonizio@state.mn.us | | |
| Phone Number(s): | 651-539-1818 | | |

**Request Number: 2**
Topic: Account 378 Remaining Life
Reference(s): Petition, pages 1-3 through 1-4

**Request:**

a. Please explain generally why anticipated up-rate in operating pressures will eliminate the need for any measuring and regulating station equipment (that would be booked to Account 378).

b. At what pressure does Great Plain's distribution system currently operate and at what pressure is it expected to operate after the completion of the PVC replacement program?

**Response:**

a. Each distribution system will be operated at a uniform pressure established at the town border station which will eliminate additional regulation stations behind the town border station.

b. Currently, Great Plains' distribution system operates at both 50 PSI and 15 PSI. Upon completion of the PVC replacement in each location, all distribution systems will operate at 50 PSI.

To be completed by responder

| | |
|---|---|
| Response Date: | July 28, 2017 |
| Response by: | Travis Jacobson |
| Email Address: | travis.jacobson@mdu.com |
| Phone Number: | 701.222.7855 |

**Minnesota Department of Commerce**
**Division of Energy Resources**
**Information Request**

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| | |
|---|---|
| Requested by: | Craig Addonizio |
| Email Address(es): | craig.addonizio@state.mn.us |
| Phone Number(s): | 651-539-1818 |

**Request Number: 3**
Topic: Account 381 Remaining Life
Reference(s): Petition, pages 1-4 through 1-5

**Request:**

As noted on page 1-4 of Great Plains' Petition, the Company visiting customer sites to install meter bars, and is replacing meters that are vintage 1999 or older.

a. What percentage of customer sites have been visited, and what percentage have yet to be visited?

b. Of the sites that have yet to be visited, what percentage have meters of vintage 1999 or earlier?

c. Please show how the proposed remaining life of 7.01 years was calculated.

**Response:**

a. Approximately 20 percent of the customer sites have been visited and a meter bar installed. The remaining 80 percent of the customer sites have yet to be visited.

b. Account 381 - Meters & Meter Installations totals $6,324,675 at the 12-31-16 study date as shown on page 2-1. Of that total, 74% or $4,664,818 is related to vintages 1999 or earlier. Generally, meters of vintage 1999 or earlier are related to sites that have yet to be visited.

c. Please see the information included in the Company's study at pages 4-45 and 4-46 as well as **"Attachment to Doc No G0004_D-17-450 Staff Req 3"** included in this response.

To be completed by responder

| | |
|---|---|
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**Great Plains Natural Gas Co**
**Calculation of ASL & ARL for**
**Account 381-Meters & Meter Install**
**Based Upon ERT Battery Life and Meter Replacement with PVC Program**

| Description | 12-31-16 Balance | ASL/Curve | ARL (Yrs) | Weight |
|---|---|---|---|---|
| | | Use 20-R4* | 12/31/2016 | |
| Total Account Investment | 6,324,475 | | 12.31 | |
| Existing Meters- Not Requiring Immediate Change Out | 3,059,103 | | 12.3 | 248,506 |
| PVC program related retirements | **3,265,372** | | 5.0 | 653,074 |
| **Weighted Average Remaining Life** | 6,324,475 | | 7.01 | 901,580 |

*Linked to Life of Battery of 20 years

Investment 12-31-16
6,324,475 Total
4,664,818 **74%** Prior 2000
Est Ret % **70%**
**3,265,372** **52%** % of Total

In conjunction the with the Company's PVC replacement program all customer sites are being visited with the purpose of installing a current technology Meter bar. In conjunction with the visit, the Meter bar is replaced, plus the existing House Regulator is replaced, and the old Regulator is being junked/retired. If the Meter at the customer location is a 2000 or newer vintage, the Meter it is transferred to the newly installed Meter bar.
If it is a 1999 or older vintage Meter, the existing Meter is replaced with a new Meter. The replaced Meter is returned to the Company Meter Shop. The returned Meters (prior to 2000 vintage) are tested, and have been experiencing retirement rates of approximately 70%. Accordingly, the overall life of the Meters property group is based upon a weighting of 20 years for the retained (in place) Meters (2000 and subsequent vintage), plus 20 years for the non-retired PVC program replaced Meters, and 5 years remaining life for the 70% portion of (Meters being replaced in conjunction with the PVC program). That is, those Meters which are being returned to the shop for inspection/testing and potential retirement).
For the ERTs that have been added to the existing Meters, it is estimated that the the ERT's battery life is anticipated to be 20 years. Also, there will be a level of ERT failures earlier in life which will require a early replacement of the Meter/ERT unit. Thus the overall remaining life of the Meter account is estimated, as weighted above, to be 7.01 years.

**PVC Program**
**2011.5**
**15** Plus 15 Years
**2026.5** End Change Out

**Average Rem Life**
**2026.5** End Change Out
**2016.5** Study Date
**5** ARL (Average Change Out Date)

**Minnesota Department of Commerce**
**Division of Energy Resources**
**Information Request**

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| Phone Number(s): | 651-539-1818 | | |

**Request Number: 4**
Topic: Account 383 Remaining Life
Reference(s): Petition, pages 1-3 through 1-4

**Request:**

As noted on page 1-4 of Great Plains' Petition, the Company visiting customer sites to install meter bars, and is replacing house regulators. Given that all house regulators are being replaced, and only a percentage of meters are being replaced, please explain why it makes sense to use the same remaining life for both accounts.

**Response:**

The Company's Account 383 House Regulator and Account 381 Meter upgrade/replacement program are generally intertwined given the operating process of replacing various components of the property groups during customer visits. Accordingly, the remaining life of the property groups were viewed to be similar. The accompanying Excel worksheet identified as **"Attachment to Response to Docket No. G004/D-17-450 Staff Request # 4"** provides a detailed calculation of the applicable supporting criteria and results in an ARL for House Regulators that is slightly shorter (but not materially dissimilar) to the ARL estimated for the Company's current Meter investment. The updated calculation is a 6.1 year ARL for Account 383 as opposed to a 7.01 year ARL (from the Meter calculation) included in the depreciation study report.

While not materially different from the calculation of ARL for Account 381 Meters, additional detailed calculations, as a result of the staff inquiry, suggests that the average remaining life for Account 383 Regulators, could be modestly shorter than the ARL for Account 381 Meters, and therefore produce a modestly higher annual depreciation rate. For the specific property group, changing Account 383 from 7.01 years to 6.1 years would add $8,805.77 to depreciation

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expense. The depreciation expense and rate for Account 383 would go from $51,674.24 or 6.62% to $59,480.01 or 7.62%.



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Email Address: travis.jacobson@mdu.com
Phone Number: 701.222.7855

**Great Plains Natural Gas Co**
**Calculation of ARL for**
**Account 383-House Regulators**

| Description | 12-31-16 Balance | Visited/Changed Percent | ARL | Weight |
|---|---|---|---|---|
| Total Account Investment | 780,578 | | | |
| Visited/Changed Percent | 156,116 | 20% | 45 | 3,469 |
| Remaining House Reg. Requiring Change Out | 624,462 | 80% | 5 | 124,892 |
| **Weighted Average Remaining Life** | 780,578 | | 6.1 | 128,362 |

While ERTs have been installed on the Company's gas meters, in conjunction the with the Company's PVC replacement program all customer sites are being visited with the purpose of installing a current technology Meter bar. In conjunction with the visit, the Meter bar is replaced, plus the existing House Regulator is replaced, and the old Regulator is being junked/retired.

**PVC/Meter Program**

**2011.5**
**15** Plus 15 Years
**2026.5** End Change Out

**Average Rem Life**

**2026.5** End Change Out
**2016.5** Study Date
**5** ARL (Average Change Out Date)