

Delta Natural Gas Company, Inc.
CASE NO. 2018-00086

ATTORNEY GENERAL'S INITIAL DATA REQUEST
DATED MAY 21, 2018

1. When does Delta expect to complete its Pipe Replacement Program (“PRP,” or “program”)?

Response:

As detailed on PSC 1-2(c), Delta plans for the program to run for 15 more years, with a completion date in 2032. Delta chose a 15 year program so that by replacing 14 miles of pipe per year, the newest vintage of pipe eligible for replacement was approximately 50 years old or less by the end of the program.

As an alternative for the Commission to consider, Delta also scheduled out on PSC 1-2(c) the same miles to be replaced over a longer period; through 2036. While a longer program would result in lower costs annually, Delta recognizes that the decision regarding the pace of replacing at-risk pipe is a balance between the cost to the customer and the integrity and safety of the pipeline system.

Sponsoring Witness:

John B. Brown

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2. State the number of miles of pipe to be replaced that Delta provided in its original application.
 - a. How many miles has Delta actually replaced for each year since the PRP's inception?
 - b. How does the current replacement rate compare to the 11-14 mile per year projected rate in the application in the instant case?

Response:

In case 2012-00136, Delta estimated approximately 67 miles of bare steel pipe would be eligible for replacement under the PRP. However, as discussed in Case No. 2017-00111, Delta noted misclassifications in its mapping records between unprotected coated steel pipe and protected steel pipe. During calendar 2017, Delta's operations personnel reviewed the mapping records to identify and correct such misclassifications.

- a. Under the PRP, Delta has replaced, net of mandatory relocations, the following miles of pipe:

2010	6.74
2011	4.04
2012	13.87
2013	9.98
2014	8.54
2015	5.45
2016	7.25
2017	11.04

- b. In 2017, 11.04 miles of pipe was replaced through the PRP.

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3. Provide the cost per mile of replacing pipes: (i) that Delta provided in its original application; (ii) its most recent experience-based figures; and (iii) its most recent projected estimate.

Response:

- i) \$194,030 per mile, as noted in Case No. 2012-00136.
- ii) \$194,620 per mile in 2017. However, the cost per mile varies per year and has been as high as \$377,000 per mile (2016).
- iii) Delta estimates 2018 PRP spending between \$194,000 per mile and \$377,000 per mile.

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4. Provide the total spending under the PRP for each year since Delta's PRP was established.

Response:

2010	\$1,574,788
2011	\$1,730,104
2012	\$3,796,271
2013	\$2,961,542
2014	\$1,843,366
2015	\$1,758,827
2016	\$3,190,348
2017	\$2,479,950

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5. Provide the type(s) of pipes that Delta's original PRP had identified to be replaced (for example, bare steel, cathodically protected, etc.).

Response:

In its Order in Case 2010-00116, the Commission found "that the PRP is reasonable and should be approved as proposed, with the exceptions that (1) PRP charges should be set out separately on the customers' bills and (2) that the PRP fixed-charge adjustment should be allocated based on the proportion of base rate revenue contribution at proposed rates."

The direct testimony of John B. Brown dated April 21, 2010, submitted in Case 2010-00116, stated the objective of the PRP was to "replace deteriorating main and service pipe and enhance the safety of its system by ensuring replacement of facilities with new, longer lasting and safer materials." Mr. Brown's testimony in 2010 specifically listed the types of pipe of concern at that time: "bare steel (whether or not cathodically protected), cathodically unprotected coated steel, and ineffectively coated steel (whether or not cathodically protected)." The testimony went on to explain "Delta will be taking steps to ensure that the newly installed facilities are appropriately designed and sized. This may necessitate in certain circumstances the replacement of facilities other than bare steel mains and services and those planning, design, replacement construction, investment and retirement costs will be included in the PRP as well. We are replacing all service lines regardless of material, that do not meet current material and construction standards, where compliance with current material and construction standards are not practical to determine, and where failing to do so will create additional legacy operation and maintenance costs."

While Aldyl-A and other vintage pipe was not specifically named in the original PRP due to the fact in 2010 these types were not yet identified as specific risks to be mitigated, the original PRP, as approved, certainly contemplated there being new risks identified and remediated through the program over time.

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6. Provide the annual cost escalation rate under the PRP for each year since the program's inception.

Response:

PRP spending is based on actual amounts incurred. Delta does not apply a cost escalation rate to expenditures under the PRP.

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7. Is Delta's PRP based in whole or in part upon budget estimates, or upon actual costs incurred?

Response:

Actual.

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8. Refer to Schedule VII. The cost per foot estimates for pipe replacement ranges from \$36.87 to \$71.57. Is Delta able to estimate how much of the remaining pipe due to be replaced will fall within the higher range of this cost versus how much pipe will be lower cost?

Response:

Delta does not have an estimate of how much pipe falls within the higher range of this cost versus how much pipe will be in the lower range of this cost. The cost per foot can vary from year to year based on the circumstances of the pipe being replaced. For example, factors that increase the cost of replacement include geographic density, rock formations, crossings (highway, railroad and waterway), state right of ways and customers tapped into the main.

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9. Is Delta proposing to replace any post-1983 plastic pipe? If so, how much, and why?
 - a. If the response to this question is "yes", provide the leak rates for all such pipe.

Response:

No. As of the current time, no post-1983 plastic pipe has been designated as at-risk.

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10. Provide the total number of Delta's customers for each of the past ten years.

Response:

The following is the average number of customers by calendar year:

2008	36,510
2009	35,908
2010	35,775
2011	35,424
2012	34,947
2013	34,839
2014	34,596
2015	34,709
2016	34,748
2017	34,817

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11. Provide the most recent estimate of Delta's projected customer growth for the next five years.

Response:

Delta has not projected customer growth for the next five years. However, over the past three years Delta has seen customer growth around .2%.

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12. Provide a discussion regarding how Delta rank-orders the pipes to be replaced.

Response:

Delta classifies each leak found according to the rules outlined in our Operations and Maintenance Manual. Leaks are graded according to severity, Grade 1 being the most severe, through Grade 3. Grade 1 leaks represent an existing or probable hazard to persons or property that requires immediate repair or continuous action until the conditions are no longer hazardous. A Grade 2 leak is a leak that is recognized as being non-hazardous at the time of detection, but justifies scheduled repair based on probable future hazard. Grade 3 leaks are non-hazardous at the time of detection and can be reasonably expected to remain non-hazardous.

Delta utilizes its leak history to prioritize the replacement of pipe for the PRP. In planning its construction activity for a year, Delta reviews the prior year leak classifications and number of leak occurrences in a section of pipe to determine which pipes require priority for replacement. This approach gives high risk pipe replacement priority. To the extent the construction crews can take on additional projects, the oldest vintage pipe is given secondary priority. The longer at-risk pipe remains in service, the greater the probability of failure.

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13. Reference the response to PSC 1-5. Given the rate of decline in Delta's lost and unaccounted-for gas, does the company believe that its rate for 2018 will be zero?
 - a. Explain whether the PRP is the main drive of this decrease, and whether any other factor may have contributed.

Response:

Delta is unable to predict future loss and unaccounted for gas.

- a. Delta would like to think the PRP has made a positive contribution towards reducing lost and unaccounted for gas; however, there are many factors which contribute to both increases and decreases in loss and unaccounted for gas.

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14. Refer to Delta's Responses to PSC 1-2(c), 3, and 4. In light of Delta's use of its leak history to prioritize the replacement of bare steel pipe and its targeting of high-risk pipe first, explain Delta's conception of how much at-risk pipe remains in its system considering that reported leaks have decreased by approximately 33% from 2009 to 2017.

Response:

Delta estimates having 1,062,000 feet of remaining at-risk pipe in service as shown in PSC 1-2(c).

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15. Refer to Delta's Response to PSC 1-6. Is Delta able to quantify or explain the magnitude of the "efficiencies for construction crews" to be able to replace both bare steel and vintage plastic pipe in the same project.
- a. How often does Delta's system have plastic and bare steel pipe close enough to be able to replace both in the same project?
 - b. How does Delta determine whether these different pipes are close enough to make the project cost-efficient?

Response:

- a. To date, Delta has been focused on bare steel and unprotected steel replacements and has not tracked how often plastic and bare steel pipes are replaced within a close proximity. However, projects can be planned so replacements of both steel and vintage plastic occur at the same time.
- b. Delta's district offices submit requests for replacements to Delta's engineering department. Engineering plans the projects and obtains the necessary right of ways. Once the project has been engineered, Delta's construction department schedules the project. Through this process, Delta engineers 6-12 months of projects in advance, which provides construction the flexibility to schedule multiple projects in close proximity. So long as multiple projects are within several miles of one another, Delta is able to leverage efficiencies between construction crews.

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16. Has Delta previously proposed to include Aldyl-A plastic pipes in its PRP? If so, state when and provide the case number.

Response:

As stated in response #5, Delta believes the original 2010 PRP contemplated there being additional types of at-risk pipe to be identified and included in the program, such as Aldyl-A, over time.

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17. Refer to Delta's Response to Staff's First Data Request, Item 2e. Delta's response stated that during service line removals, that "[m]ost often, the service line is purged, capped and left in place for potential future use."
- a. Explain Delta's process of determining when to not abandon a service line in place, but to actually remove the service line completely, and the reasons why it would do so.
 - b. Explain how often the complete removal of a service line occurs.

Response:

- a. Service lines are typically abandoned in place and the physical removal of a service line is rare. Operations personnel do not recall any service lines physically removed in recent years.
- b. See the response to a. above.

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18. Confirm that based on Delta's response to PSC 1-2(d), annual surcharge estimates for each customer class through 2033, residential customers are projected to pay a total of approximately \$44.65 million under the low estimate range, and \$78.63 million under the high estimate range.

Response:

Correct. To replace approximately 1 million feet of aging at-risk pipe, the residential customer would experience an annual increase in their bill from 2018-2033 averaging 1% per year under the low estimate and 2% per year under the high estimate.

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19. Provide Delta's rate base for each year since the PRP's inception date.

Response:

As of 12/31/17, Delta's rate base provided through the PRP totaled \$11,040,226, accumulated as follows from the PRP's inception date:

2010	\$854,203
2011	\$1,767,183
2012	\$3,831,922
2013	\$5,478,886
2014	\$6,509,259
2015	\$7,556,360
2016	\$9,550,953
2017	\$11,040,226

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20. Confirm that to date, based upon the spreadsheet titled "Cost of Service Impact from PRP" included in the application, the PRP has yielded O & M reductions of approximately \$75,300.

Response:

Correct.

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21. Provide the percentage of Delta's total costs that are collected through the PRP.

Response:

Schedule III of the PRP filing includes recovery of certain operating cost (depreciation expense and property taxes, net of decreased maintenance costs). The following represents the percentage of PRP operating costs to Delta's total operating costs:

2010	0.04%
2011	0.13%
2012	0.48%
2013	0.63%
2014	0.72%
2015	1.01%
2016	1.46%
2017	1.64%

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22. Does Delta agree that any savings achieved through the build-up of accumulated depreciation and accumulated deferred income taxes associated with investment in existing plant should be used to offset the PRP revenue requirement? If not, why not?

Response:

Delta does not believe that accumulated depreciation and accumulated deferred income taxes represents "savings". The build-up of accumulated depreciation and accumulated deferred income taxes on PRP expenditures is taken into account by reducing rate base in the PRP filing. Such treatment of accumulated depreciation and accumulated deferred income taxes is consistent with the calculation of rate base in Delta's rate cases.

Sponsoring Witness:

Matthew D. Wesolosky

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC ADJUSTMENT OF THE PIPE)
REPLACEMENT PROGRAM RIDER OF) CASE NO. 2018-00086
DELTA NATURAL GAS COMPANY, INC.)

VERIFICATION

The undersigned, John B. Brown, being duly sworn, deposes and states that he is President, Secretary and Treasurer of Delta Natural Gas Company, Inc. and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

[Handwritten signature of John B. Brown]
John B. Brown

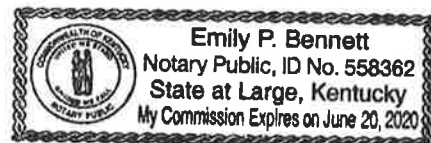
STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 18 day of June, 2018.

[Handwritten signature of Emily P. Bennett] (SEAL)
Notary Public

My Commission Expires:

6/20/20



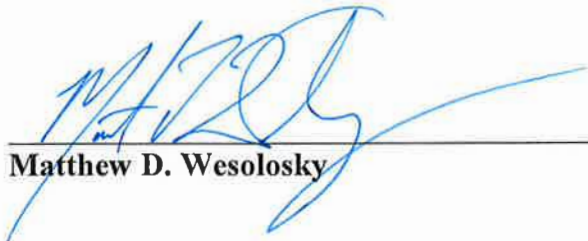
COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC ADJUSTMENT OF THE PIPE)
REPLACEMENT PROGRAM RIDER OF) **CASE NO. 2018-00086**
DELTA NATURAL GAS COMPANY, INC.)

VERIFICATION

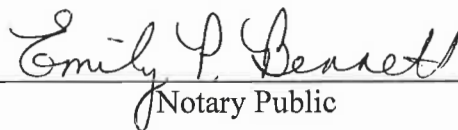
The undersigned, **Matthew D. Wesolosky**, being duly sworn, deposes and states that he is Vice President – Controller of Delta Natural Gas Company, Inc. and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.



Matthew D. Wesolosky

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 1st day of June, 2018.

 (SEAL)

Notary Public

My Commission Expires:

6/20/20

