PUBLIC SERVICE COMPANY OF COLORADO
Gas
Technical Depreciation Update
At September 30, 2016

ALLIANCE
CONSULTING GROUP

PUBLIC SERVICE COMPANY OF COLORADO
DEPRECIATION RATE STUDY
AT SEPTEMBER 30, 2016

Table of Contents

PURPOSE

The purpose of this technical update is to update depreciation rates for specific gas depreciable plant accounts as recorded on the books of Public Service Company of Colorado ("PSCo" or "Company") as of September 30, 2016.

The depreciation rates in this study were designed to recover the total remaining undepreciated investment, adjusted for net salvage, over the remaining life of PSCo's property on a straight-line basis. PSCo is a regulated electric, gas and steam utility principally engaged in providing production and delivery services to customers in Colorado. PSCo provides the essential service of producing and delivering electricity, gas and steam safely, reliably and economically to end-use consumers through its production, transmission and distribution systems.

The Company has defined the scope of this technical update to be Accounts 367 Transmission Mains and 376 Distribution Mains. Those accounts comprise $1.7 billion in plant, which is 51% of PSCo's Gas property as of September 30, 2016.

STUDY RESULTS

Recommended depreciation rates for PSCo Gas depreciable property are shown in Appendix A. These rates translate into an annual depreciation accrual of approximately $33.4 million based on PSCo's depreciable gas plant investment as of September 30, 2016. A comparison between depreciation rates and annual accruals at current levels versus the proposed rates and resulting annual accruals is shown in Appendix B. Appendix B shows the comparison of current and recommended depreciation accrual rates for PSCo Gas property. The proposed lives and net salvage parameters on which these calculations are based is shown in Appendix C, which contains a comparison of current and recommended depreciation parameters for PSCo Gas property. As shown in Appendix B, the annual depreciation expense calculated by the same method using the existing approved depreciation rates is approximately $33.1 million for PSCo's gas assets. Appendix D shows a comparison between the book and theoretical depreciation reserve for each account for PSCo Gas. Appendix E addresses the development of net salvage parameters for the plant accounts for PSCo Gas.

GENERAL DISCUSSION

Definition

The term "depreciation" as used in this study is considered in the accounting sense; that is, a system of accounting that distributes the cost of assets, less net salvage (if any), over the estimated useful life of the assets in a systematic and rational manner. It is a process of allocation, not valuation. This expense is systematically allocated to accounting periods over the life of the properties. The amount allocated to any one accounting period does not necessarily represent the loss or decrease in value that will occur during that particular period. The Company accrues depreciation on the basis of the original cost of all depreciable property included in each functional property group. At retirement, the full cost of depreciable property, less the net salvage value, is charged to the depreciation reserve.

Basis of Depreciation Estimates

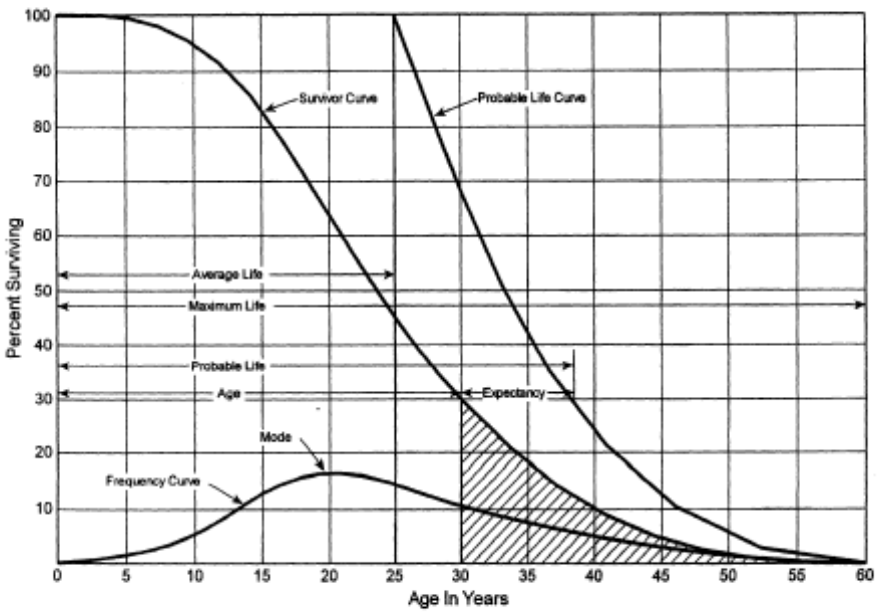
Annual and accrued depreciation were calculated in this study by the straight-line, vintage group, remaining-life depreciation system. In this system, the annual depreciation expense for each vintage is computed by dividing the original cost of the asset vintage (less allocated depreciation reserve less estimated net salvage) by its respective average remaining life. The resulting annual accrual amounts were divided by the original cost of the depreciable property in each account to determine the depreciation rate. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group, and were computed in a direct weighting by multiplying each vintage or account balance times its remaining life and dividing by the plant investment in service as of September 30, 2016. The computations of the annual depreciation rates are shown in Appendix A, and the weighted remaining life calculations are shown in the workpapers.

An actuarial analysis approach was incorporated into the analyses of PSCo data. This method was approved by the Colorado Public Utilities Commission in the Proceeding No. 16AL-0231E and is generally used to determine depreciation rates for

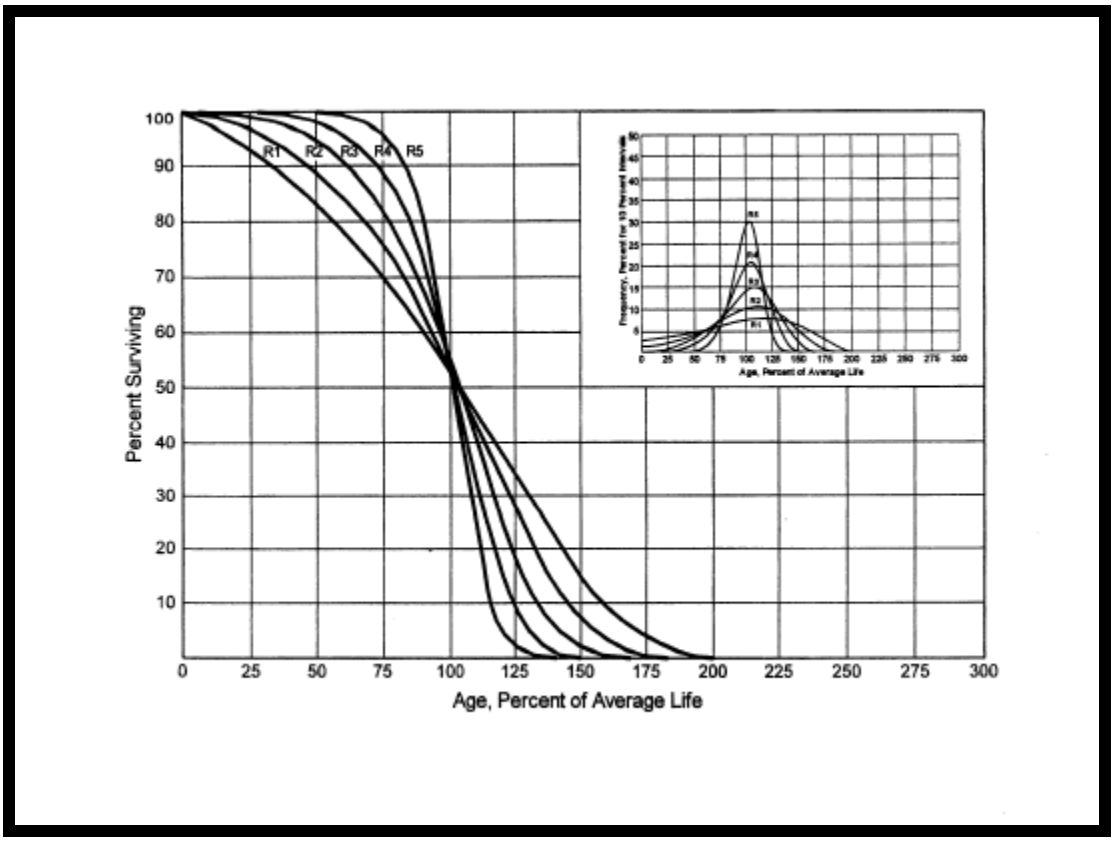
gas utility property. The rates for gas property were based on a 2011 year-end study which was adjudicated in Proceeding No. 12AL-1268G. Vintaged information was assembled in this study to allow actuarial analysis to be performed, and judgment was used to a greater or lesser degree on each account. This approach is more fully described in a later section.

Survivor Curves

To fully understand depreciation projections in a regulated utility setting, there must be a basic understanding of Survivor Curves. Individual assets within a group do not normally have identical lives or investment amounts. The average life of a group can be determined by comparing actual experience against various Survivor Curves. A Survivor Curve represents the percentage of property remaining in service at various age intervals. The most widely used set of representative Survivor Curves are the Iowa Survivor Curves (Iowa Curves). The Iowa Curves are the result of an extensive investigation of life characteristics of physical property made at the Iowa State College Engineering Experiment Station in the first half of the twentieth century. Through common usage, revalidation, and regulatory acceptance, these curves have become a descriptive standard for the life characteristics of industrial property. An example of an Iowa Curve is shown below.



There are four families in the Iowa Curves which are distinguished by the relation of the age at the retirement mode (largest annual retirement frequency) and the average life. The four families are designated as “R”— Right, “S” — Symmetric, “L” — Left, and “O” — Origin Modal. First, for distributions with the mode age greater than the average life, an "R" designation (i.e., Right modal) is used. The family of “R” moded curves is shown below.



Second, an "S" designation (i.e., Symmetric modal) is used for the family whose mode age is symmetric about the average life. Third, an "L" designation (i.e., Left modal) is used for the family whose mode age is less than the average life. Fourth, a special case of left modal dispersion is the "O" or origin modal curve family. Within each curve family, numerical designations are used to describe the relative magnitude of the retirement frequencies at the mode. A "6" indicates that the retirements are not greatly dispersed from the mode (i.e., high mode frequency) while a "1" indicates a large dispersion about the mode (i.e., low mode frequency). For example, a curve with an average life of 30 years and an "L3" dispersion is a moderately dispersed, left modal curve that can be designated as a 30 L3 Curve. An SQ, or square, Survivor Curve occurs where no dispersion is present (i.e., units of common age retire simultaneously).

For all depreciable accounts, a Survivor Curve pattern was selected based on analyses of historical data, as well as other factors, such as general changes relevant to the Company's operations of different types of gas assets. The blending of professional judgment concerning current conditions and future trends, along with the matching of historical data permits the depreciation analyst to make an informed selection of an account's average life and retirement dispersion pattern. Iowa Curves were used to depict the estimated Survivor Curves for each account.

Actuarial Analysis

Actuarial analysis (retirement rate method) was used in evaluating historical asset retirement experience where vintage data were available and sufficient retirement activity was present. In an actuarial analysis, interval exposures (total property subject to retirement at the beginning of the age interval, regardless of vintage) and age interval retirements are calculated. The complement of the ratio of interval retirements to interval exposures establishes a survivor ratio. The survivor ratio is the fraction of property surviving to the end of the selected age interval, given that it has survived to the beginning of that age interval. Survivor ratios for all of the available age intervals were chained by successive multiplications to establish a series of survivor factors, collectively known as an observed life table. The observed life table shows the experienced mortality characteristic of the account and may be compared to standard mortality curves such as the Iowa Curves. Many accounts were analyzed using this method. Placement bands were used to illustrate the composite history over a specific era, and experience bands were used to focus on retirement history for all vintages during a set period. Matching data in observed life tables for each experience and placement band to an Iowa Curve requires visual examination. As stated in widely-cited text, Depreciation Systems by Wolf and Fitch, “the analyst must decide which points or sections of the curve should be given the most weight. Points at the end of the curve are often based on fewer exposures and may be given less weight than those points based on larger samples” (page 46). Some analysts chose to use mathematical fitting as a tool to narrow the population of

curves using a least squares technique. Use of the least squares approach does not imply a statistical validity; however, because the underlying data does not meet the criteria for independence between vintages and the same average price for property units through time. Thus, Depreciation Systems cautions at page 48 that "… the results of mathematical fitting should be checked visually and the final determination of best fit made by the analyst." This study uses the visual matching approach to match Iowa Curves, since mathematical fitting produces theoretically possible curve matches. Visual examination and experienced judgment allow the depreciation professional to make the final determination as to the best curve type. Detailed information for each account is shown later in this study and in workpapers.

Judgment

Any depreciation study requires informed judgment by the analyst conducting the study. A knowledge of the property being studied, company policies and procedures, general trends in technology and industry practice, and a sound basis of understanding depreciation theory are needed to apply this informed judgment. In this depreciation study, judgment was used in areas such as Survivor Curve modeling and selection, depreciation method selection, simulated plant record method analysis, and actuarial analysis.

Where there are multiple factors, activities, actions, property characteristics, statistical inconsistencies, property mix in accounts, or a multitude of other considerations that affect the analysis, judgment is used to take into account all of these considerations and synthesize them into a general direction or understanding of the characteristics of the property. Individually, no one consideration in these cases may have a substantial impact on the analysis, but overall, the collective effect of these considerations may shed light on the use and characteristics of assets. Judgment may also be defined as deduction, inference, wisdom, common sense, or the ability to make sensible decisions. There is no single correct result from statistical analysis; hence, there is no answer absent the application of informed professional judgment and experience.

DETAILED DISCUSSION

Depreciation Study Process

This depreciation study encompassed four distinct phases. The first phase involved data collection and field interviews. The second phase was where the initial data analysis occurred. The third phase was where the information and analysis was evaluated. After the first three stages were complete, the fourth phase began. This phase involved the calculation of deprecation rates and documenting the corresponding recommendations.

During the Phase I data collection process, historical data was compiled from continuing property records and general ledger systems. Data was validated for accuracy by extracting and comparing to multiple financial system sources: Projects System (construction ledger), Fixed Asset System (continuing property ledger), General Ledger, and interfaces from other operating systems. Audit of this data was validated against historical data from prior periods, historical general ledger sources, and field personnel discussions. This data was reviewed extensively so that it could be put in the proper format for a depreciation study. Further discussion on data review and adjustment is found in the Salvage Consideration section of this study. Also as part of the Phase I data collection process, numerous discussions were conducted with engineers and field operations personnel to obtain information that would be helpful in formulating life and salvage recommendations in this study. One of the most important elements in performing a proper depreciation study is to understand how the Company utilizes assets and the environment of those assets. Understanding industry and geographical norms for mortality characteristics are important factors in selecting life and salvage recommendations; however, care must be used not to apply them rigorously to any particular company since no two companies would have the same exact forces of retirement acting upon their assets. Interviews with engineering and operations personnel are important ways to allow the analyst to obtain information that is helpful when evaluating the output from the life and net salvage programs in relation to the Company's actual asset utilization and environment. Information that was gleaned in these discussions is found both in the

Detailed Discussion portions of the Life Analysis and Salvage Analysis sections and also in workpapers. In addition, Alliance personnel possess a significant understanding of the property and its forces of retirement due to years of day-to-day exposure to property and the operations of gas utility property.

Phase 2 is where the actuarial analysis was performed. Phase 2 and Phase 3 overlap to a significant degree. The detailed property records information was used in Phase 2 to develop observed life tables, graphs and statistics for analysis. Net salvage analysis consists of compiling historical salvage and removal data by account to determine values and trends in gross salvage and removal cost. This information was then carried forward into Phase 3 for the evaluation process.

Phase 3 is the evaluation process, which synthesized analysis, interviews, and operational characteristics into a final selection of asset lives and net salvage parameters. The historical analysis from Phase 2 was further enhanced by the incorporation of recent or future changes in the characteristics or operations of assets that were revealed in Phase 1. The preliminary results were then reviewed and discussed with Company accounting and operations personnel. Phases 2 and 3 validated the asset characteristics as seen in the accounting transactions with actual Company operational experience.

Finally, Phase 4 involved the calculation of accrual rates, making recommendations and documenting the conclusions in a final report. The calculation of accrual rates is found in Appendix A. Recommendations for the various accounts are contained within the detailed discussion section of this report. The depreciation study flow diagram shown as Figure 1[1] documents the steps used in conducting this study. Depreciation Systems[2] also documents the same basic processes in performing a depreciation study: a statistical analysis, evaluation of statistical analysis, discussions with management, forecast assumptions, writing logic supporting forecasts and estimation, and writing the final report.

[1] Introduction to Depreciation for Public Utilities and Other Industries, AGA EEI, 2013.
[2] Wolf & Fitch, Depreciation Systems, Iowa State Press, 1994, p. 289.

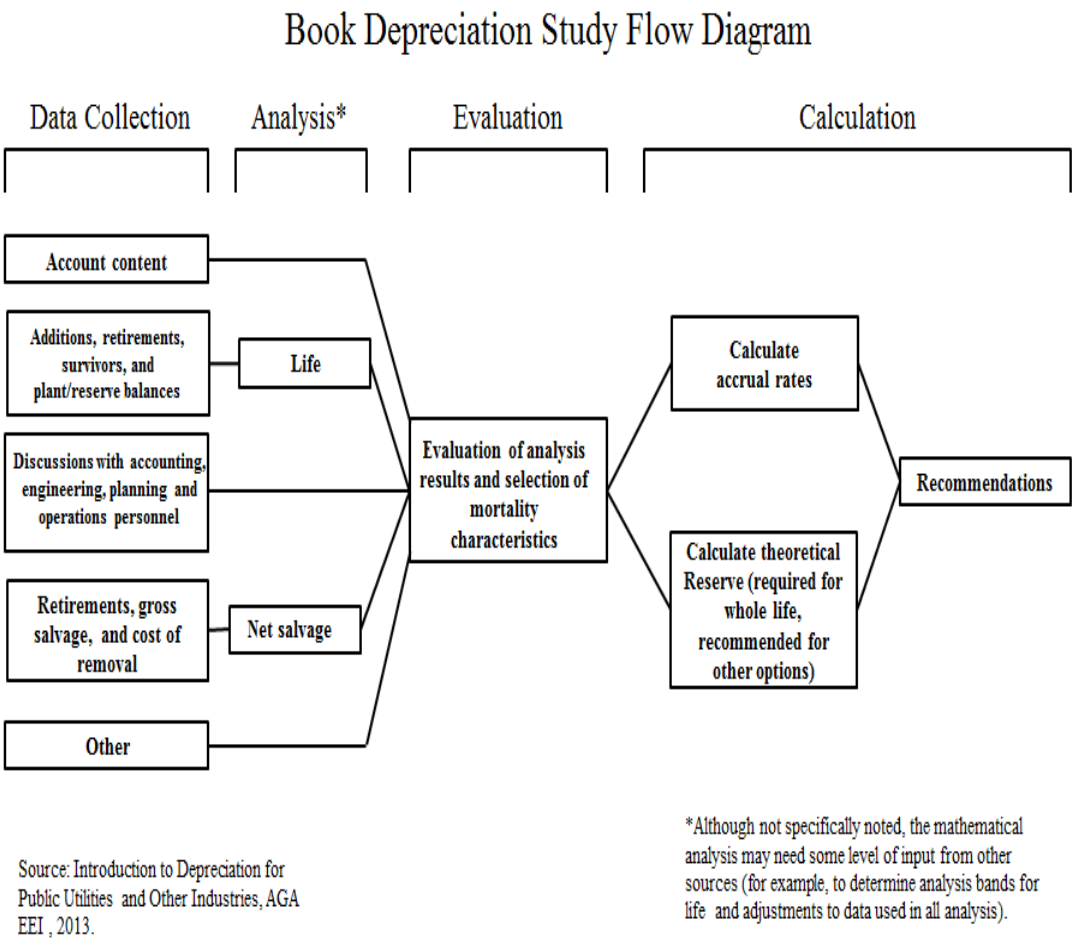


Figure 1

PSCo GAS

TECHNICAL UPDATE PROCESS

Depreciation Calculation Process

Annual depreciation expense amounts for depreciable accounts were calculated by the vintage group, straight line, remaining life procedure.

In a whole life representation, the annual accrual rate is computed by the following equation:

$$AnnualAccrualRate = \frac{(100\% - NetSalvagePercent)}{AverageServiceLife}$$

The vintage group procedure considers each year of plant placement as a separate group, unlike the broad group model which combines all placement years into one group. The vintage group model uses a unique Survivor Curve for each vintage to combine observed and forecast survivor ratios rather than a single curve for each vintage as the broad group model does.

Use of the remaining life depreciation system adds a self-correcting mechanism, which accounts for any differences between theoretical and book depreciation reserve over the remaining life of the group. With the straight line, remaining life, average life group system using Iowa Curves, composite remaining lives were calculated according to standard broad group expectancy techniques, noted in the formula below:

$$Composite\ \mathrm{Re}\ mainingLife = \frac{\sum V\ \mathrm{int}\ ageOriginalCost * \mathrm{Re}\ mainingLife}{\sum TotalOriginalCost}$$

For each plant account, the difference between the surviving investment, adjusted for estimated net salvage, and the book depreciation reserve, was divided by the composite remaining life to yield the annual depreciation expense as noted in this equation:

$$AnnualDepreciationExpense = \frac{OriginalCost - Book\ \mathrm{Re}\ serve - (OriginalCost) * (1 - NetSalvage\ \%)}{Composite\ \mathrm{Re}\ mainingLife}$$

In this equation, the net salvage percent represents expected future net salvage to be incurred.

Within a group, the sum of the group annual depreciation expense amounts, as

a percentage of the depreciable original cost investment summed, gives the annual depreciation rate as shown below:

$$AnnualDepreciationRate = \frac{\sum AnnualDepreciationExpense}{\sum OriginalCost}$$

Average salvage was assumed equal to future net salvage when computing reserve ratios. These calculations are shown in Appendix D which compares the book and theoretical depreciation reserves by account. The calculations of the theoretical depreciation reserve values and the corresponding remaining life calculations are shown in workpapers. Book depreciation reserves are maintained on an account level and were used to compute depreciation rates for each account.

LIFE ANALYSIS

FERC Account 367 Mains (72 R3)

This account consists of transmission mains and related assets. The balance in this account is $586 million. The assets in this account include coated or wrapped steel mains, valves, rectifiers, and other equipment. The operation of this equipment is very similar to Account 376.1 Mains - Metallic. The approved life for this account is 65 years with a R3 dispersion. The Company has done inline inspections for over 1,000 miles of the 2,200 miles of transmission main. That process began around 2008. Gas Transmission Integrity Rules impacted operations in this account beginning in 2002. The Company had to assess 50% of high consequence areas by 2007 and complete 100% of high consequence areas by 2012. The Company targets to have complete assessments for all gas transmission assets done by 2026. Capital replacement related to pigability should taper down over time.

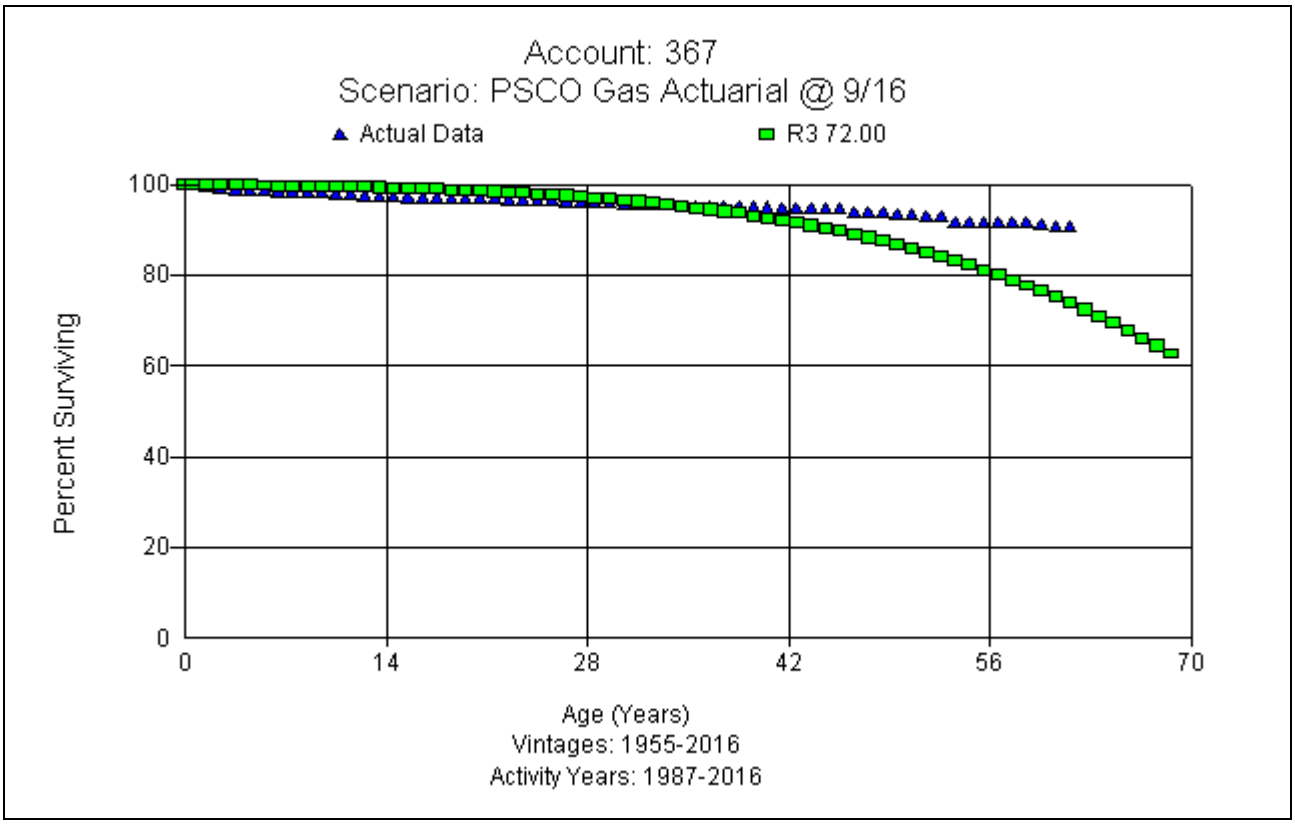
The largest replacement effort impacting this account was the West Main project, which was completed in 2016. The project was driven by the integrity findings. The West Main project replaced approximately 80 miles of pipe much of which was older than 65 years.

Company personnel anticipate that the life of this account will increase slightly based on the expectations of the current assets. Some of the 1950's pipe is still in reasonably good condition. However, some of the 1960s and 1970s pipelines are not as good. Prior to the 1950s, pipeline installations practices, pipe, coatings, CP, and welding practices were not as good.

PHMSA (Pipeline Hazardous Materials Safety Administration) has a NPRM (Notice of Proposed Rulemaking) that may require the replacement of some pipe. If missing certain records, the NPRM would require the Company to either retest or replace pipe over the course of 15 years. Starting in 2001, the Company began to add remote control equipment to some valves. They will put remote control on new construction as appropriate. The program (RCV – Remote Control Valve) is estimated to have capital spend (approximately $10M-$20M per year) and may last 5 years or more (beginning in 2016). In addition, PHMSA is discussing new rulemaking around

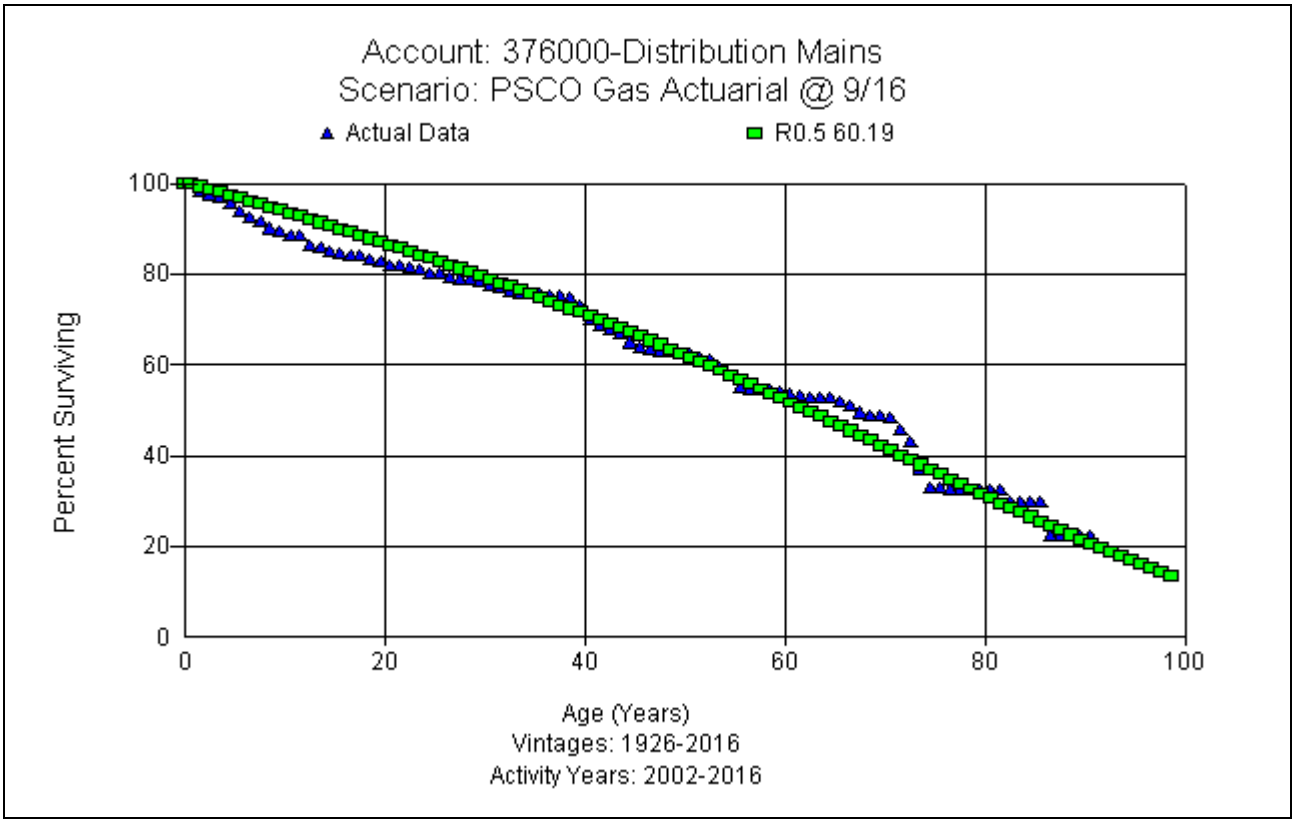
higher levels of remote control valves. Company personnel expect the life of transmission valves (absent the remote control issue) to be close to but less than the life of the underlying pipe.

For most bands, the stub curve does not drop below 80 percent surviving. That is insufficient data to accurately predict the characteristics of this account. Based on (1) the results for Account 376.1 Mains – Metallic, which includes similar asset types as Account 367, and (2) input from Company personnel, this study recommends moving to a 72 year life and R3 dispersion. A graph of the actual experience and the selected Iowa Survivor Curve is shown below.



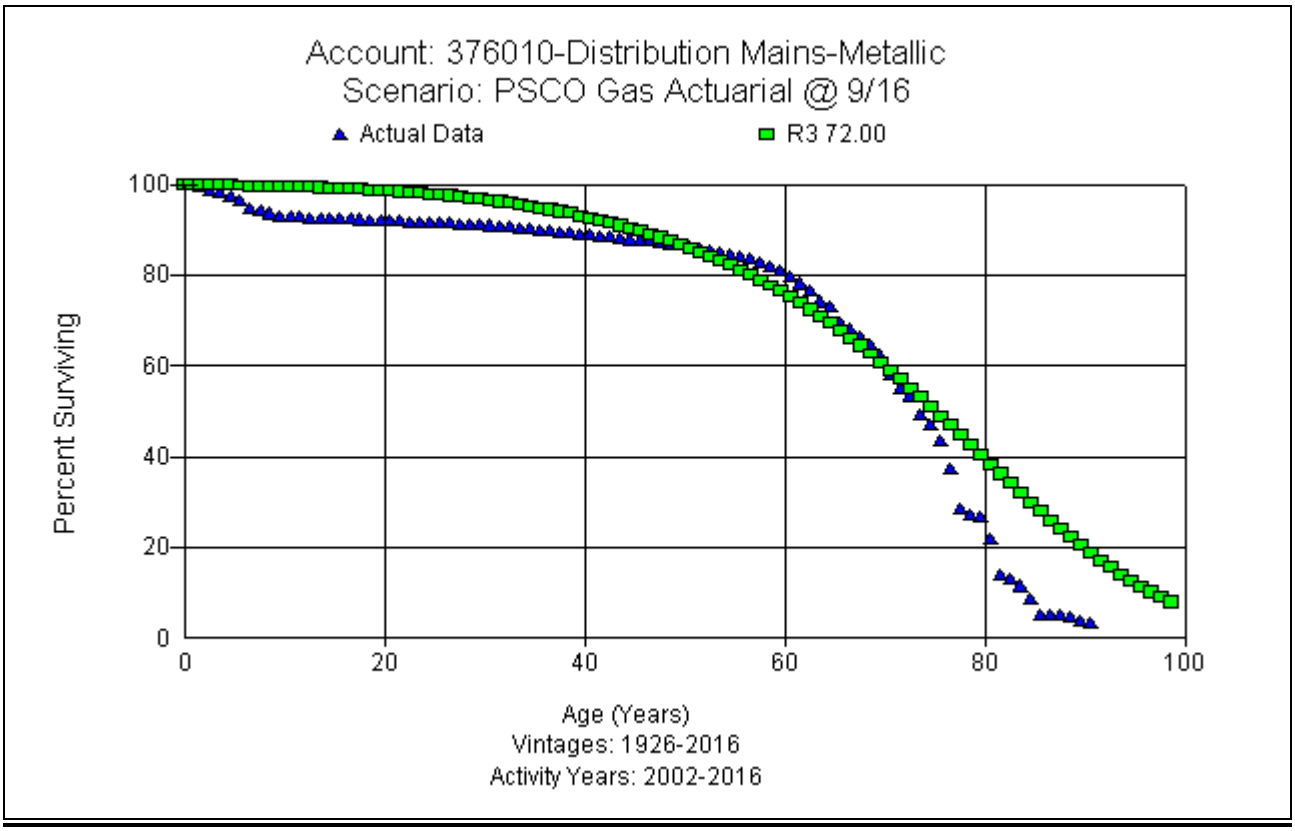
FERC Account 376 Mains (60 R0.5)

This account consists of equipment associated with distribution mains such as valves, rectifiers, vaults, and yard improvements. The balance in this account is $5.8 million. In the last depreciation study, all sub-accounts were combined into one group. This study separates the assets into the sub-accounts. The approved life for this account is 65 years with a R3 dispersion. The Company has undertaken a large effort to replace valves that are not operable and is finding that some valves are extremely expensive to replace (e.g., in vaults in downtown Denver). Company personnel anticipate that valves will have a shorter life than the pipe. There are times when valves are replaced without replacing the pipe, but not times when the pipe is replaced without replacing the valve. Rectifiers will have a much shorter life than the valves. Based on judgment and the type of assets in this account, this study recommends moving to a 60 year life with a R0.5 dispersion.



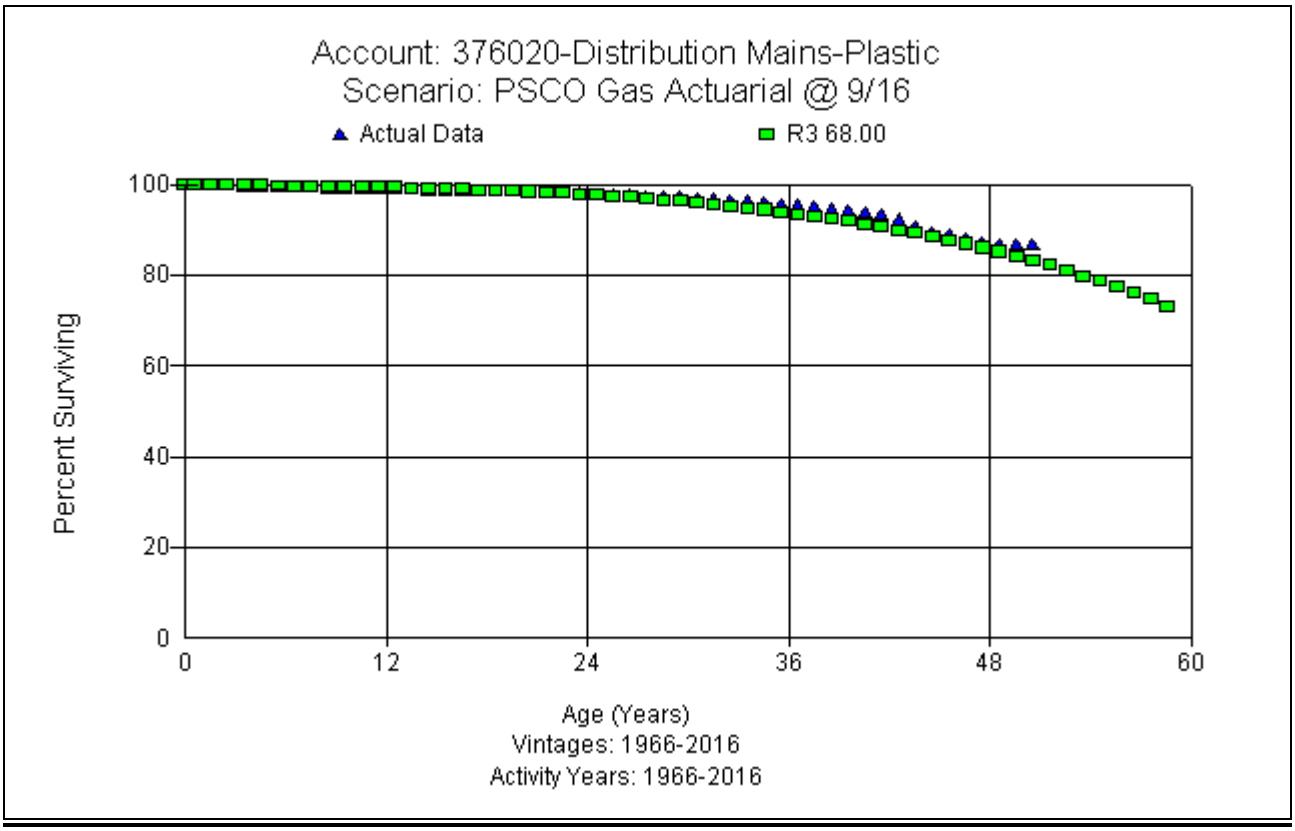
FERC Account 376.1 Mains - Metallic (72 R3)

This account consists of steel distribution mains and associated equipment. The balance in this account is $470 million. Assets in this account include collated or wrapped steel mains of various diameters. In the last depreciation study all sub-accounts were combined into one group. This study separates the assets into the sub-accounts. The approved life for this account is 65 years with a R3 dispersion. Over time, the Company went from installing cast iron to bare steel to coated steel utilizing tape wrapped coatings to, finally, fusion bonded coatings for its steel mains. A cast iron replacement program was put in place that replaced all known cast iron by 2015. This effort involved 120 miles and took about 20 years. The Company reports that 2008 was the beginning of an aggressive program to replace assets in this account. Pre-1970s pipe is subject to retirement due to the lack of cathodic protection prior to then. Company personnel expect a longer life for newer (post-1970s) pipe. Construction methods have improved over the years (e.g., welding practices, cathodic protection, moving from wrapped to fusion bonded coatings). Company personnel expect more damage to the distribution system than transmission system, which may translate to a shorter life for the distribution system. Soil conditions may impact life (bentonite and freeze/thaw cycles). In the early 1950s, compression couplings and threaded couplings were installed. In the early 1960s, the Company stopped using those couplings. Leak surveys show more leaks in the 1950s pipe. The work to replace early vintage steel is just ramping up. Starting in 2014 (through 2024), there is a significant effort to replace high risk steel pipe. Based on judgment and current conditions, this study recommends moving to a 72 year life with a R3 dispersion.


Account: 376010-Distribution Mains-Metallic
Scenario: PSCO Gas Actuarial @ 9/16
Actual Data
R3 72.00
Percent Surviving
100
80
60
40
20
0
0
20
40
60
80
100
Age (Years)
Vintages: 1926-2016
Activity Years: 2002-2016

FERC Account 376.2 Mains - Plastic (68 R3)

This account consists of plastic distribution mains and associated equipment. The balance in this account is $612 million. Assets in this account are plastic mains of various diameters. In the last depreciation study all sub-accounts were combined into one group. This study separates the assets into the sub-accounts. The approved life for this account is 65 years with a R3 dispersion. Company personnel report that one of the newest drivers of retirement is regulatory rules both at the Federal and State level. Moreover, some of the early generations of plastic have been problematic (e.g., Aldyl-A and PVC pipe). The Company has been replacing those assets earlier than originally anticipated when they were installed (all 1st and 2nd generation plastic pipe). Early construction with PVC will also have earlier than anticipated retirements. Most of the assets targeted for retirement are in the 1960s and 1970s (pre-1973) vintages. Polyethylene is predominant in the later 1970s and after. The Company has programs in place to replace early generations (Accelerated Main replacement Program and PPRP – Problematic Pipe Replacement Program), both of which have been under way for some years and are expected to continue for a number of years into the future. The experience with plastic is not long enough with the newer resins to materially change the life that is currently estimated. Actuarial life analysis is indicating a slightly longer life than is currently approved, and this study recommends moving in that direction based on the analysis results and the increasing balance in later generation plastic mains. Based on judgment and current conditions, this study recommends moving to a 68 year life with a R3 dispersion.


Account: 376020-Distribution Mains-Plastic
Scenario: PSCO Gas Actuarial @ 9/16
Actual Data
R3 68.00
Percent Surviving
100
80
60
40
20
0
0
12
24
36
48
60
Age (Years)
Vintages: 1966-2016
Activity Years: 1966-2016

NET SALVAGE ANALYSIS

When a capital asset is retired, physically removed from service, and finally disposed of, terminal retirement has occurred. The residual value of a terminal retirement is called gross salvage. Net salvage is the difference between the gross salvage (what the asset was sold for) and the removal cost (cost to remove and dispose of the asset). Gross salvage and cost of removal related to retirements are recorded to the general ledger in the accumulated provision for depreciation at the time retirements occur within the system.

Removal cost percentages are calculated by dividing the current cost of removal by the original installed cost of the asset. Some plant assets can experience significant negative removal cost percentages due to the timing of the addition versus the retirement. For example, a distribution asset in FERC Account 376 with a current installed cost of $500 (2017) would have had an installed cost of $14.82[3] in 1945, which is the average life of the account. A removal cost of $50 for the asset calculated (incorrectly) on current installed cost would only have a negative 10 percent removal cost ($50/$500). However, a correct removal cost calculation would show a negative 337 percent removal cost for that asset ($50/$14.82). Inflation from the time of installation of the asset until the time of its removal must be taken into account in the calculation of the removal cost percentage because the depreciation rate, which includes the removal cost percentage, will be applied to the original installed cost of assets.

[3] Using the Handy-Whitman Bulletin No. 184, G-5, line 44, $14.82 = $500 x 22/742,

Factors Impact Removal Cost

At Alliance Consulting Group's request, Company experts analyzed factors that impact removal cost of gas transmission and distribution mains. While gas mains for transmission and distribution are usually abandoned in place, the following removal costs are incurred per 49 CFR 192.727 (entitled "Abandonment or deactivation of facilities"). This regulation provides as follows:

> (a) Each operator shall conduct abandonment or deactivation of pipelines in accordance with the requirements of this section.
>
> (b) Each pipeline abandoned in place must be disconnected from all sources and supplies of gas; purged of gas; in the case of offshore pipelines, filled with water or inert materials; and sealed at the ends. However, the pipeline need not be purged when the volume of gas is so small that there is no potential hazard.
>
> (c) Except for service lines, each inactive pipeline that is not being maintained under this part must be disconnected from all sources and supplies of gas; purged of gas; in the case of offshore pipelines, filled with water or inert materials; and sealed at the ends. However, the pipeline need not be purged when the volume of gas is so small that there is no potential hazard.

The cost of deactivation, abandon in place, and removal of gas mains for transmission and distribution assets has increased over time due to several general factors, including:

Time Value of Money

Many gas main assets have a life cycle of 60 years or more. Some of the assets being removed were installed over 60 years ago when materials, labor and cost of goods were cheaper.

Change in PHMSA requirements

The PHMSA has issued Advisory Bulletins and a Notice of Proposed Rule Making that requires operators to replace or test gas transmission pipelines that lack records used to establish Maximum Allowable Operating Pressure (MAOP). PSCo has started this work and in most cases will be replacing existing gas transmission pipelines, regardless of whether or not they have reached the average service life.

Urban Area

The majority of the construction and reconstruction projects are in urban areas. Many cities require permits. These permits may impose certain limitations such as the closure of roads during high traffic times. These permits may also require construction to occur in the evening, or on weekends that require overtime of crews. Municipalities are increasingly requiring PSCo to repave more of the road than just the paving disturbed by excavation activity. For example, the City of Aurora requires the entire block to be repaved if the amount of disturbed paving exceeds a certain criteria.

Contract Labor

In the last decade, investment in utility gas main renewal projects has increased substantially across the country. In addition, the same skills and resources are needed in the larger oil and gas industry. This has created a high demand for the limited number of qualified personnel available to construct the work. The increases in capital expenditures are such that utilities now have to augment their internal workforces with external contract construction providers and the cost of external contracts has increased due to supply and demand factors. Over ninety percent of PSCo gas renewal construction is performed by contractors.

Safety Requirements

The industry, and specifically PSCo, has strived to provide a very high level of safe working practices. The equipment and provisions required today have increased substantially from 60 years ago. PSCo uses excavation and trenching work practices that align with modern industry practice. These policies have increased the cost of doing business, but are important part of the strong safety principles at PSCo.

Increased Financial Controls

Financial standards and regulations have increased over time. PSCo has adopted the best practices and incorporated cost and quality controls measures into the close out of construction work orders. This provides greater details of costs associated with removal work compared to several years prior. As can be seen with the review of the FERC plant of accounts, cost of removal varies year by year, but the information collected has improved since 2007 after the 2007 Removal Work In Progress (RWIP) Audit. Cost of removal for mains has increased, beginning in 2010 and going forward.

Pipeline System Integrity Adjustment (PSIA)

One of PSCo's goals is to ensure safe reliable natural gas service. We systematically inspect, repair and replace as necessary, portions of our more than 24,000 miles of natural gas pipelines in Colorado that deliver natural gas. This proactive approach complies with and complements governmental requirements. In recent years, PSCo has replaced all known cast iron pipe and Cellulose Acetate Butyrate (CAB) plastic pipe. In the next 7 years, PSCo also intends to replace all Bare Steel main and Polyvinyl Chloride (PVC) pipe. These materials have been identified throughout the industry as poor performing pipe types. The PSIA started in 2011 as a method to recover costs to modernize and upgrade our natural gas pipeline system. In addition, the PSIA efforts also include the following facility efforts:

- Programmatic Risk-Based Replacement Program - The program identifies and systematically replaces distribution mains not covered by the Accelerated Main Replacement Program or CAB Gas Service Replacement Program that have a higher relative risk to public safety than other pipes within the gas distribution system.
- Distribution Valve Replacement Project - The Company has identified a need to add, replace, or otherwise rehabilitate existing valves to continue to improve overall public safety.
- Bridge Crossings/Exposed Pipes Project – The project identifies and evaluates bridge crossings and exposed pipelines with observed atmospheric corrosion for remediation or replacement.
- Shorted Casings Project – The project evaluates pipelines that have been installed in a steel casing and identified as having a potential for corrosion for remediation or replacement.
- West Main Pipeline Replacement - The West Main pipeline is an 80-mile pipeline serving Fort Collins, Loveland, Longmont and Boulder. The Company concluded that the pipeline needed to be replaced based on assessments. The West Main pipeline, along with other pipelines in the Company's system of the same vintage, was constructed prior to modern construction methods and prior to the Natural Gas Pipeline Safety Act of 1968 that provided for the establishment of pipeline safety standards by the U.S. Department of Transportation ("DOT"). Additionally, the West Main pipeline was installed prior to corrosion control requirements becoming the industry standard for newly-constructed, buried metallic pipes.
- Transmission Pipeline Assessments - Capital expenditures associated with Transmission Pipeline Assessments are primarily attributable to baseline assessments and associated infrastructure investments, such as the installation of launchers, receivers and fittings to allow in-line-inspection tools to navigate through a pipeline, and new pipelines and regulators necessary to maintain service to customers during an assessment.

A detailed discussion by plant account follows below:

FERC Account 367 Mains (-25% net salvage)

This account consists of any gross salvage and removal cost associated with transmission mains and related assets. The approved net salvage for this account is negative 10 percent. The retirements in this account in recent years have an increased removal cost with the overall moving average showing negative 48.2 percent To moderate the change in net salvage, this study recommends moving to negative 25 percent net salvage for this account.

FERC Account 376 Mains (-50% net salvage)

This account consists of any gross salvage and removal cost for equipment associated with distribution mains. Assets in this account include valves, rectifiers, vaults, and yard improvements. In the last depreciation study, all sub-accounts were combined into one group. The approved net salvage for this account is negative 35 percent. The recent retirements in this account reflect an increase in removal cost. The overall moving average for this account is negative 53.5 percent net salvage. To moderate the change in net salvage, this study recommends moving from the currently approved negative 35 percent net salvage to a negative 50 percent net salvage for this account.

FERC Account 376.1 Mains - Metallic (-50% net salvage)

This account consists of any gross salvage and removal cost associated with steel distribution mains and associated equipment. In the last depreciation study, all sub-accounts were combined into one group. The approved net salvage for this account is negative 35 percent. The recent retirements in this account reflect an increase in removal cost. The overall moving average for this account is negative 91.8 percent net salvage. To moderate the change in net salvage, this study recommends moving from the currently approved negative 35 percent net salvage to a negative 50 percent net salvage for this account

FERC Account 376.2 Plastic Mains (-35% net salvage)

This account consists of any gross salvage and removal cost associated with plastic distribution mains and associated equipment. Assets in this account are plastic mains of various diameters. In the last depreciation study, all sub-accounts were combined into one group. The approved net salvage for this account is negative 35 percent. The recent retirements in this account reflect an increase in removal cost. The overall moving average for this account is negative 43.5 percent net salvage. However, some of the increasingly negative impact is from 2016 transactions. This study recommends retaining the currently approved negative 35 percent net salvage for this account until the negative trend is more firmly established.

APPENDIX A
Proposed Depreciation Rates

PUBLIC SERVICE OF COLORADO- GAS PLANT
COMPUTATION OF ANNUAL DEPRECIATION ACCRUAL RATES
AT SEPTEMBER 30, 2016

FERC Account	Company Account	Account Description	Plant Balance 09/30/2016	Depreciation Reserve 09/30/2016	Est. Future Net Salvage %	Est. Future Net Salvage Amount	Unaccrued Balance	Remaining Life (Yrs)	Annual Accrual	Depr Rate
		TRANSMISSION PLANT								
367	Mains		585,580,472	97,794,812	-25%	(146,395,118.00)	634,180,778	62.56	10,136,406	1.7310%
	TOTAL TRANSMISSION PLANT		585,580,472	97,794,812		(146,395,118.00)	634,180,778		10,136,406	
	DISTRIBUTION PLANT									
376	Mains		5,828,478	2,306,964	-50%	(2,914,239.00)	6,435,753	42.46	151,583	2.6007%
376.1	Mains - Metallic		470,391,762	135,948,221	-50%	(235,195,881.00)	569,639,422	53.63	10,622,587	2.2582%
376.2	Mains - Plastic		611,511,320	146,391,682	-35%	(214,028,962.00)	679,148,600	54.45	12,472,040	2.0395%
	TOTAL DISTRIBUTION PLANT		1,087,731,560	284,646,867		(452,139,082.00)	1,255,223,775		23,246,210	
	TOTAL GAS PLANT DEPRECIABLE		1,673,312,032	382,441,679		(598,534,200)			33,382,616	

APPENDIX B
Comparison of Accrual Rates

PUBLIC SERVICE OF COLORADO- GAS PLANT
COMPARISON OF PRESENT AND PROPOSED DERPRECIATION ACCRUAL
AT SEPTEMBER 30, 2016

FERC Account	Account Description	Plant Balance 09/30/2016	Present		Proposed		Proposed Less Present Accrual
			Annual Rate	Annual Accrual	Annual Rate	Annual Accrual	
	TRANSMISSION PLANT						
367	Mains	585,580,472	1.5760%	9,228,748	1.7310%	10,136,406	907,657
	TOTAL TRANSMISSION PLANT	**585,580,472**	**1.5760%**	**9,228,748**	**1.7310%**	**10,136,406**	**907,657**
	DISTRIBUTION PLANT						
376	Mains	5,828,478	2.3929%	139,470	2.6007%	151,583	12,113
376.1	Mains - Metallic	470,391,762	2.2432%	10,551,828	2.2582%	10,622,587	70,759
376.2	Mains - Plastic	611,511,320	2.1614%	13,217,206	2.0395%	12,472,040	(745,166)
	TOTAL DISTRIBUTION PLANT	**1,087,731,560**	**2.1980%**	**23,908,503**	**2.1371%**	**23,246,210**	**(662,293)**
	TOTAL DEPRECIABLE PLANT	**1,673,312,032**	**1.9803%**	**33,137,252**	**1.9950%**	**33,382,616**	**245,364**

Present Rates Approved Docket 12AL-1268G

Approved rates from Docket 10-AL-963G.

APPENDIX C

COMPARISON OF PARAMETERS

PUBLIC SERVICE OF COLORADO- GAS PLANT
COMPARISON OF PRESENT AND PROPOSED DERPRECIATION PARAMETERS
AT SEPTEMBER 30, 2016

FERC Account	Account Description	Present Average Life	Present Curve	Present Net Salvage	Proposed Average Life	Proposed Curve	Proposed Net Salvage	Difference Life	Difference Net Salvage
	TRANSMISSION PLANT								
367	Mains	65	R3	-10%	72	R3	-25%	7	-15%
	DISTRIBUTION PLANT								
376	Mains	65	R3	-35%	60	R0.5	-50%	-5	-15%
376.1	Mains - Metallic	65	R3	-35%	72	R3	-50%	7	-15%
376.2	Mains - Plastic	65	R3	-35%	68	R3	-35%	3	0%

APPENDIX D
COMPARISON OF ACTUAL AND THEORETICAL RESERVE

PUBLIC SERVICE OF COLORADO- GAS PLANT
COMPARISON OF ACTUAL AND THEORETICAL RESERVE
AT SEPTEMBER 30, 2016

FERC Account	Account Description	Plant Balance 09/30/2016	Theoretical Reserve	Actual Reserve	Difference
	TRANSMISSION PLANT				
367	Mains	585,580,472	95,922,755	97,794,812	(1,872,057)
	TOTAL TRANSMISSION PLANT	585,580,472	95,922,755	97,794,812	(1,872,057)
	DISTRIBUTION PLANT				
376	Mains	5,828,478	2,556,226	2,306,964	249,262
376.1	Mains - Metallic	470,391,762	180,068,923	135,948,221	44,120,702
376.2	Mains - Plastic	611,511,320	164,456,235	146,391,682	18,064,553
	TOTAL DISTRIBUTION PLANT	1,087,731,560	347,081,384	284,646,867	62,434,517
	TOTAL DEPRECIABLE GAS PLANT	$1,673,312,032	$443,004,139	$382,441,679	$60,562,460

APPENDIX E
NET SALVAGE ANALYSIS

PUBLIC SERVICE OF COLORADO GAS
RETIREMENTS, GROSS SALVAGE, AND COST OF REMOVAL 1999-2011
AS ADJUSTED

Transaction Year	Account	Retirements	Gross Salvage	Cost of Removal	Net Salvage	Net Salv. %	2-yr Net Salv. %	3-yr Net Salv. %	4-yr Net Salv. %	5-yr Net Salv. %	6-yr Net Salv. %	7-yr Net Salv. %	8-yr Net Salv. %	9-yr Net Salv. %	10-yr Net Salv. %	11-yr Net Salv. %	12-yr Net Salv. %	13-yr Net Salv. %	14-yr Net Salv. %	15-yr Net Salv. %	16-yr Net Salv. %	17-yr Net Salv. %	18-yr Net Salv. %
1999	367	44,054	0	0	0	0.0%																	
2000	367	9,068	0	18,807	(18,807)	-207.4%	-35.4%																
2001	367	294,876	6,740	1,972	4,767	1.6%	-4.6%	-4.0%															
2002	367	21,689	0	853	(853)	-3.9%	1.2%	-4.6%	-4.0%														
2003	367	273,144	0	3,936	(3,936)	-1.4%	-1.6%	0.0%	-3.1%	-2.9%													
2004	367	43,279	0	5,431	(5,431)	-12.6%	-3.0%	-3.0%	-0.9%	-3.8%	-3.5%												
2005	367	1,386,243	0	74,984	(74,984)	-5.4%	-5.6%	-5.0%	-4.9%	-4.0%	-4.9%	-4.8%											
2006	367	744,601	0	37,374	(37,374)	-5.0%	-5.3%	-5.4%	-5.0%	-5.0%	-4.3%	-4.9%	-4.8%										
2007	367	836,712	0	176,790	(176,790)	-21.1%	-13.5%	-9.7%	-9.8%	-9.1%	-9.1%	-8.2%	-8.7%	-8.6%									
2008	367	921,895	0	26,257	(26,257)	-2.8%	-11.5%	-9.6%	-8.1%	-8.2%	-7.7%	-7.7%	-7.1%	-7.5%	-7.4%								
2009	367	262,595	0	40,932	(40,932)	-15.6%	-5.7%	-12.1%	-10.2%	-8.6%	-8.6%	-8.2%	-8.2%	-7.6%	-7.9%	-7.9%							
2010	367	928,609	0	417,730	(417,730)	-45.0%	-38.5%	-22.9%	-22.4%	-18.9%	-15.2%	-15.2%	-14.5%	-14.5%	-13.6%	-14.0%	-13.8%						
2011	367	37,844	889	322,154	(321,265)	-848.9%	-76.5%	-63.5%	-37.5%	-32.9%	-27.3%	-21.4%	-21.3%	-20.3%	-20.3%	-19.1%	-19.4%	-19.3%					
2012	367	44,231	0	299,617	(299,617)	-677.4%	-756.5%	-102.8%	-84.8%	-50.4%	-42.3%	-35.0%	-27.0%	-26.9%	-25.6%	-25.5%	-24.2%	-24.4%	-24.3%				
2013	367	75,567	19,091	59,762	(40,671)	-53.8%	-284.1%	-419.7%	-99.4%	-83.0%	-50.5%	-42.6%	-35.3%	-27.4%	-27.3%	-26.0%	-25.9%	-24.5%	-24.8%	-24.6%			
2014	367	2,074,043	889	973,635	(972,746)	-46.9%	-47.1%	-59.9%	-73.2%	-64.9%	-61.1%	-48.8%	-44.3%	-39.4%	-32.9%	-32.8%	-31.7%	-31.6%	-30.4%	-30.6%	-30.4%		
2015	367	933,082	13,502	1,782,100	(1,768,598)	-189.5%	-91.2%	-90.2%	-98.6%	-107.5%	-93.3%	-88.6%	-73.7%	-66.5%	-59.8%	-50.7%	-50.5%	-48.9%	-48.8%	-47.1%	-47.3%	-47.0%	
Sep-16	367	0	0	108,162	(108,162)	NA	-201.1%	-94.8%	-93.8%	-102.0%	-110.9%	-96.0%	-91.1%	-75.7%	-68.2%	-61.4%	-52.0%	-51.8%	-50.2%	-50.0%	-48.3%	-48.5%	-48.2%
1999	376	720,187	0	0	0	0.0%																	
2000	376	634,509	0	114,403	(114,403)	-18.0%	-8.4%																
2001	376	1,200,678	294,927	293,031	1,896	0.2%	-6.1%	-4.4%															
2002	376	1,264,729	20,082	357,994	(337,912)	-26.7%	-13.6%	-14.5%	-11.8%														
2003	376	353,241	0	178,501	(178,501)	-50.5%	-31.9%	-18.3%	-18.2%	-15.1%													
2004	376	1,538,050	20,489	307,492	(287,003)	-18.7%	-24.6%	-25.5%	-18.4%	-18.4%	-16.0%												
2005	376	1,648,579	0	676,134	(676,134)	-41.0%	-30.2%	-32.3%	-30.8%	-24.6%	-24.0%	-21.6%											
2006	376	1,835,157	960	531,419	(530,459)	-28.9%	-34.6%	-29.7%	-31.1%	-30.3%	-25.6%	-25.0%	-23.1%										
2007	376	1,713,473	0	487,181	(487,181)	-28.4%	-28.7%	-32.6%	-29.4%	-30.5%	-29.9%	-26.1%	-25.6%	-23.9%									
2008	376	3,830,404	0	514,912	(514,912)	-13.4%	-18.1%	-20.8%	-24.5%	-23.6%	-24.5%	-24.7%	-22.5%	-22.3%	-21.2%								
2009	376	1,085,649	0	345,609	(345,609)	-31.8%	-17.5%	-20.3%	-22.2%	-25.3%	-24.4%	-25.2%	-25.3%	-23.2%	-23.0%	-21.9%							
2010	376	1,022,768	0	1,563,967	(1,563,967)	-152.9%	-90.6%	-40.8%	-38.0%	-36.3%	-37.0%	-34.8%	-35.2%	-34.4%	-31.8%	-31.2%	-29.9%						
2011	376	1,920,986	0	2,029,434	(2,029,434)	-105.6%	-122.1%	-97.8%	-56.7%	-51.6%	-48.0%	-47.1%	-44.1%	-44.2%	-42.9%	-39.9%	-39.1%	-37.6%					
2012	376	1,505,386	369,527	962,361	(592,834)	-39.4%	-76.5%	-94.1%	-81.9%	-53.9%	-50.0%	-47.0%	-46.3%	-43.6%	-43.8%	-42.6%	-39.9%	-39.2%	-37.8%				
2013	376	3,040,699	91,309	2,879,326	(2,788,017)	-91.7%	-74.4%	-83.7%	-93.1%	-85.4%	-63.2%	-58.9%	-55.5%	-54.1%	-51.3%	-51.3%	-49.8%	-47.0%	-46.2%	-44.8%			
2014	376	5,008,084	43,045	2,693,662	(2,650,618)	-52.9%	-67.6%	-63.1%	-70.2%	-77.0%	-73.4%	-60.2%	-57.4%	-54.9%	-53.9%	-51.6%	-51.6%	-50.4%	-48.1%	-47.4%	-46.2%		
2015	376	2,085,012	52,578	2,791,790	(2,739,212)	-131.4%	-76.0%	-80.7%	-75.4%	-79.6%	-84.8%	-81.1%	-67.8%	-64.6%	-61.8%	-60.4%	-58.0%	-57.9%	-56.4%	-54.1%	-53.3%	-52.1%	
Sep-16	376	636,848	16,272	6,331,536	(6,315,265)	-991.6%	-332.7%	-151.4%	-134.6%	-122.9%	-120.6%	-122.7%	-116.7%	-97.0%	-91.7%	-86.8%	-83.8%	-80.1%	-79.7%	-77.4%	-74.2%	-73.0%	-71.3%
2002	376000	615,108	0	22,065	(22,065)	-3.6%	-3.6%	-3.6%	-3.6%														
2003	376000	1,302	0	175	(175)	-13.4%	-3.6%	-3.6%	-3.6%	-3.6%													
2004	376000	0	0	(3,864)	3,864	NA	283.3%	-3.0%	-3.0%	-3.0%	-3.0%												
2005	376000	5,837	0	501	(501)	-8.6%	57.6%	44.7%	-3.0%	-3.0%	-3.0%	-3.0%											
2006	376000	6,492	0	0	0	0.0%	-4.1%	27.3%	23.4%	-3.0%	-3.0%	-3.0%	-3.0%										
2007	376000	0	0	2,315	(2,315)	NA	-35.7%	-22.8%	8.5%	6.4%	-3.4%	-3.4%	-3.4%	-3.4%									
2008	376000	0	0	0	0	NA	NA	-35.7%	-22.8%	8.5%	6.4%	-3.4%	-3.4%	-3.4%	-3.4%								
2009	376000	0	0	0	0	NA	NA	NA	-35.7%	-22.8%	8.5%	6.4%	-3.4%	-3.4%	-3.4%	-3.4%							
2010	376000	814	0	13,290	(13,290)	-1632.5%	-1632.5%	-1632.5%	-1916.8%	-213.6%	-122.5%	-93.1%	-86.0%	-5.5%	-5.5%	-5.5%	-5.5%						
2011	376000	60,745	0	136,763	(136,763)	-225.1%	-243.8%	-243.8%	-243.8%	-247.5%	-223.9%	-206.9%	-201.7%	-198.4%	-24.8%	-24.8%	-24.8%	-24.8%					
2012	376000	16,396	0	0	0	0.0%	-177.3%	-192.5%	-192.5%	-192.5%	-195.5%	-180.4%	-169.3%	-165.0%	-162.9%	-24.2%	-24.2%	-24.2%	-24.2%				
2013	376000	4,714	0	161,375	(161,375)	-3423.3%	-764.4%	-364.2%	-376.7%	-376.7%	-376.7%	-379.5%	-351.9%	-330.8%	-326.7%	-322.5%	-46.8%	-46.8%	-46.8%	-46.8%			
2014	376000	11,593	0	54,420	(54,420)	-469.4%	-1323.3%	-659.8%	-377.3%	-388.1%	-388.1%	-388.1%	-390.6%	-365.4%	-345.9%	-342.2%	-338.3%	-53.5%	-53.5%	-53.5%	-53.5%		
2015	376000	36,127	0	18,912	(18,912)	-52.3%	-153.7%	-447.6%	-341.0%	-286.7%	-295.1%	-295.1%	-295.1%	-296.9%	-282.8%	-271.6%	-268.9%	-266.5%	-53.5%	-53.5%	-53.5%	-53.5%	
Sep-16	376000	0	0	0	0	NA	-52.3%	-153.7%	-447.6%	-341.0%	-286.7%	-295.1%	-295.1%	-295.1%	-296.9%	-282.8%	-271.6%	-268.9%	-266.5%	-53.5%	-53.5%	-53.5%	-53.5%
2002	376010	451,445	0	270,883	(270,883)	-60.0%	-60.0%	-60.0%	-60.0%														
2003	376010	272,115	0	161,096	(161,096)	-59.2%	-59.7%	-59.7%	-59.7%	-59.7%													
2004	376010	1,300,769	1,560	226,444	(224,884)	-17.3%	-24.5%	-32.4%	-32.4%	-32.4%	-32.4%												
2005	376010	1,112,027	0	580,830	(580,830)	-52.2%	-33.4%	-36.0%	-39.5%	-39.5%	-39.5%	-39.5%											
2006	376010	1,564,358	720	479,046	(478,326)	-30.6%	-39.6%	-32.3%	-34.0%	-36.5%	-36.5%	-36.5%	-36.5%										
2007	376010	1,337,004	0	402,131	(402,131)	-30.1%	-30.3%	-36.4%	-31.7%	-33.1%	-35.1%	-35.1%	-35.1%	-35.1%									
2008	376010	3,384,017	0	395,383	(395,383)	-11.7%	-16.9%	-20.3%	-25.1%	-23.9%	-25.0%	-26.7%	-26.7%	-26.7%	-26.7%								
2009	376010	747,405	0	240,211	(240,211)	-32.1%	-15.4%	-19.0%	-21.6%	-25.7%	-24.6%	-25.5%	-27.1%	-27.1%	-27.1%	-27.1%							
2010	376010	614,615	0	1,253,581	(1,253,581)	-204.0%	-109.7%	-39.8%	-37.7%	-36.2%	-38.2%	-35.5%	-36.2%	-37.2%	-37.2%	-37.2%	-37.2%						
2011	376010	1,593,968	0	1,650,669	(1,650,669)	-103.6%	-131.5%	-106.4%	-55.8%	-51.3%	-47.8%	-48.3%	-44.8%	-45.2%	-45.7%	-45.7%	-45.7%	-45.7%					
2012	376010	1,127,409	18,210	855,988	(837,778)	-74.3%	-91.4%	-112.2%	-97.5%	-58.6%	-54.3%	-50.7%	-50.9%	-47.4%	-47.7%	-48.1%	-48.1%	-48.1%	-48.1%				
2013	376010	1,648,859	44,633	2,376,627	(2,331,994)	-141.4%	-114.2%	-110.3%	-121.8%	-110.2%	-73.6%	-68.0%	-63.2%	-62.2%	-58.2%	-58.2%	-58.3%	-58.3%	-58.3%	-58.3%			
2014	376010	3,112,695	12,615	1,987,927	(1,975,312)	-63.5%	-90.5%	-87.4%	-90.8%	-99.4%	-93.7%	-71.0%	-67.0%	-63.2%	-62.5%	-59.1%	-59.1%	-59.1%	-59.1%	-59.1%	-59.1%		
2015	376010	1,462,477	22,693	2,218,394	(2,195,702)	-150.1%	-91.2%	-104.5%	-99.9%	-100.5%	-107.2%	-101.7%	-79.5%	-75.1%	-70.9%	-69.7%	-66.1%	-66.0%	-65.9%	-65.9%	-65.9%	-65.9%	
Sep-16	376010	478,064	11,257	5,564,598	(5,553,341)	-1161.6%	-399.3%	-192.4%	-179.9%	-164.7%	-154.3%	-157.4%	-148.7%	-116.0%	-108.6%	-101.4%	-98.4%	-93.0%	-92.5%	-91.8%	-91.8%	-91.8%	-91.8%

PUBLIC SERVICE OF COLORADO GAS
RETIREMENTS, GROSS SALVAGE, AND COST OF REMOVAL 1999-2011
AS ADJUSTED

Transaction Year	Account	Retirements	Gross Salvage	Cost of Removal	Net Salvage	Net Salv. %	2-yr Net Salv. %	3-yr Net Salv. %	4-yr Net Salv. %	5-yr Net Salv. %	6-yr Net Salv. %	7-yr Net Salv. %	8-yr Net Salv. %	9-yr Net Salv. %	10-yr Net Salv. %	11-yr Net Salv. %	12-yr Net Salv. %	13-yr Net Salv. %	14-yr Net Salv. %	15-yr Net Salv. %	16-yr Net Salv. %	17-yr Net Salv. %	18-yr Net Salv. %
2002	376020	198,176	20,082	65,046	(44,965)	-22.7%	-22.7%	-22.7%	-22.7%														
2003	376020	79,824	0	17,230	(17,230)	-21.6%	-22.4%	-22.4%	-22.4%	-22.4%													
2004	376020	237,280	18,929	84,912	(65,983)	-27.8%	-26.2%	-24.9%	-24.9%	-24.9%	-24.9%												
2005	376020	530,715	0	94,803	(94,803)	-17.9%	-20.9%	-21.0%	-21.3%	-21.3%	-21.3%	-21.3%											
2006	376020	264,307	240	52,373	(52,133)	-19.7%	-18.5%	-20.6%	-20.7%	-21.0%	-21.0%	-21.0%	-21.0%										
2007	376020	376,469	0	82,735	(82,735)	-22.0%	-21.0%	-19.6%	-21.0%	-21.0%	-21.2%	-21.2%	-21.2%	-21.2%									
2008	376020	446,387	0	119,529	(119,529)	-26.8%	-24.6%	-23.4%	-21.6%	-22.4%	-22.3%	-22.4%	-22.4%	-22.4%	-22.4%								
2009	376020	338,244	0	105,397	(105,397)	-31.2%	-28.7%	-26.5%	-25.2%	-23.2%	-23.7%	-23.7%	-23.6%	-23.6%	-23.6%	-23.6%							
2010	376020	407,339	0	297,096	(297,096)	-72.9%	-54.0%	-43.8%	-38.6%	-35.8%	-31.8%	-31.4%	-31.1%	-30.6%	-30.6%	-30.6%	-30.6%						
2011	376020	266,273	0	242,002	(242,002)	-90.9%	-80.0%	-63.7%	-52.4%	-46.2%	-42.8%	-37.8%	-37.0%	-36.5%	-35.7%	-35.7%	-35.7%	-35.7%					
2012	376020	352,605	1,945	105,953	(104,008)	-29.5%	-55.9%	-62.7%	-54.9%	-47.9%	-43.5%	-40.9%	-36.8%	-36.1%	-35.8%	-35.0%	-35.0%	-35.0%	-35.0%				
2013	376020	1,384,107	24,978	294,042	(269,065)	-19.4%	-21.5%	-30.7%	-37.8%	-37.0%	-35.6%	-34.2%	-33.2%	-31.3%	-31.1%	-31.0%	-30.6%	-30.6%	-30.6%	-30.6%			
2014	376020	1,874,689	4,843	579,674	(574,831)	-30.7%	-25.9%	-26.2%	-30.7%	-34.7%	-34.4%	-33.8%	-33.0%	-32.3%	-31.1%	-31.0%	-30.9%	-30.6%	-30.6%	-30.6%	-30.6%		
2015	376020	582,122	0	429,319	(429,319)	-73.8%	-40.9%	-33.1%	-32.8%	-36.3%	-39.4%	-38.8%	-37.9%	-36.9%	-36.2%	-34.7%	-34.5%	-34.4%	-34.1%	-34.1%	-34.1%	-34.1%	
Sep-16	376020	158,784	5,014	766,938	(761,924)	-479.9%	-160.8%	-67.5%	-50.9%	-49.1%	-51.6%	-53.3%	-51.9%	-50.0%	-48.3%	-47.1%	-44.9%	-44.3%	-44.1%	-43.5%	-43.5%	-43.5%	-43.5%