

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

IN THE MATTER OF BLACK HILLS/)
NEBRASKA GAS UTILITY COMPANY, LLC)
D/B/A BLACK HILLS ENERGY, OMAHA,) DOCKET NO. NG ___
SEEKING A PIPELINE REPLACEMENT CHARGE)
FOR BLACK HILLS ENERGY'S RATE AREAS)
ONE, TWO AND THREE (CONSOLIDATED))

Rtqlgev'Ecr kcrnCmjecvkqp'Rtkqtkkk cvkqp'O qf grl'

		<h2>TECHNICAL STANDARD</h2>	
Gas Operating Standard No. G-PN1002	Revision No. Original	Page 1 of 12	
Affected Business Unit(s) Gas Supervisors/Managers Gas Ops Techs Construction Coordinators	Document Storage/Location FileNet: ECM /Gas Operations	Operating Department Gas Engineering, Standards & DOT Compliance	
		Final Approval /s/ Mike Kisicki	Effective Date 04/08/2014
Subject Project Capital Allocation Prioritization Model - Gas			

1.0 PURPOSE

Provide a tool to assist in prioritizing capital projects for allocation of appropriate funding across the Company's Field Operations.

2.0 SCOPE & BACKGROUND

Projects required to meet regulatory codes must be properly prioritized when compared to other projects, taking safety and potential non-compliance citations and fines into consideration. System growth projects must comply with regulatory approved tariffs as well as the Company's financial return criteria

3.0 RESPONSIBILITIES

Operations Tech
Operations Supervisors/Managers
Construction Coordinator

4.0 MATERIALS AND EQUIPMENT

Microsoft Excel

Copy of Worksheet located on: Gas Engineering Services Web Page:
MyBHC > Utilities > Gas Engineering Services > Scroll to bottom of page—
Click on G-PN1002 Integrity Project Priority-Pipe Replace Plan Worksheet

5.0 DEFINITIONS AND ACRONYMS

<i>Term</i>	<i>Description</i>
Type A	Government Mandated Relocations
Type B	System Integrity – Replacements
Type C	System Growth
Type D	System Integrity – Capacity
Type E	Tools/Equipment/Other

 <h2 style="text-align: center;">TECHNICAL STANDARD</h2>			
Title: Project Capital Allocation Prioritization Model – Gas	Procedure No. G-PN1002	Revision No. Original	Page 2 of 12

6.0 PROCEDURE

Type A: Government Mandated Relocations	<p>Type A projects must be completed due to conflicts with government projects, such as:</p> <ul style="list-style-type: none"> • City street or road improvement projects • State, Federal or County highway projects • Any other government backed projects requiring relocation of our facilities <p>Type A funding is imperative and precedes funding of any other network enhancements, expansions, or customer additions. An examples of a project that is essential to complete is a main relocation project due to a street or highway project. Although the exact scope or timing of the project could be debated, there is no question that the project has to be funded and completed.</p>														
Type B: System Integrity Replacements	<p>Type B projects are integrity projects to replace pipe or equipment due to deterioration and would be ranked utilizing a points system. Using the priority ranking values on the following pages, along with judgment, based upon experience, as to the impact on public relations, economics, and risk. Examples of projects to be ranked could include:</p> <p>A. <u>Priority Ranking</u></p> <p>Type B projects are to be ranked (when possible) in accordance with the following values. These are used to provide a starting point for relative project priority. Judgment as to the impact on public relations, economics, and risk would be used as necessary to adjust these rankings.</p> <p><u>Priority Ranking Key</u></p> <table style="margin-left: 20px;"> <tr><td>High Priority</td><td>1</td></tr> <tr><td>Medium High Priority</td><td>2</td></tr> <tr><td>Medium Priority</td><td>3</td></tr> <tr><td>Medium Low Priority</td><td>4</td></tr> <tr><td>Low Priority</td><td>5</td></tr> <tr><td>Require Attention</td><td>6</td></tr> <tr><td>Require More Justification</td><td>7</td></tr> </table> <p>1) <u>Priority Ranking 1 - High Priority</u></p> <ul style="list-style-type: none"> • Over 500 points on the replacement model • Current segment leakage • Safety code compliance issues • Odorizer functions erratically/high maintenance • Floating pipe • Shallow or exposed line in a high-risk exposure area 	High Priority	1	Medium High Priority	2	Medium Priority	3	Medium Low Priority	4	Low Priority	5	Require Attention	6	Require More Justification	7
High Priority	1														
Medium High Priority	2														
Medium Priority	3														
Medium Low Priority	4														
Low Priority	5														
Require Attention	6														
Require More Justification	7														

			
TECHNICAL STANDARD			
Title:	Procedure No.	Revision No.	Page
Project Capital Allocation Prioritization Model – Gas	G-PN1002	Original	3 of 12

Type B: System Integrity – Replacements (Continued)	<i>Type B (Continued)</i>
	<ol style="list-style-type: none"> 2) <u>Priority Ranking 2 - Medium High Priority</u> <ul style="list-style-type: none"> • Over 400 points on the replacement model • Non-safety code compliance issues • Shallow or exposed line in a medium risk exposure area 3) <u>Priority Ranking 3 - Medium Priority</u> <ul style="list-style-type: none"> • Over 300 points on the replacement model • Shallow or exposed line in a low-exposure area • Odorizer day tank too small • System emergency shutdown/restorations capability 4) Priority Ranking 4 - Medium - Low Priority <ul style="list-style-type: none"> • Over 200 points on the replacement model • Regulator, meter, equipment obsolescence, possible compliance issues • Odorizer bulk tank too small, inadequate or non-existent 5) Priority Ranking 5 - Low Priority <ul style="list-style-type: none"> • Under 200 points on the replacement model • Regulator, meter, equipment obsolescence but still in compliance • System emergency shutdown/restoration capability 24-72 hours 6) Priority Ranking 6 - Requires Attention <ul style="list-style-type: none"> • System emergency shutdown/restoration capabilities - 24 hours 7) Priority Ranking 7 - Require More Justification <ul style="list-style-type: none"> • Needs additional supporting documentation

			
TECHNICAL STANDARD			
Title:	Procedure No.	Revision No.	Page
Project Capital Allocation Prioritization Model – Gas	G-PN1002	Original	4 of 12

Type B: System Integrity – Replacements (Continued)	<p><i>Type B (Continued)</i></p> <p>B. <u>Repair vs. Replace Evaluation</u></p> <p>In addition to the preceding Type B situations, capital funding is to be allocated to replacement projects based upon economics and risk as identified by the replacement model. The decision to replace a segment of main rather than repair (e.g. continue to maintain) can sometimes be determined by economics alone; however, generally additional factors that contribute to risk need to be considered. Each project of this type is to be evaluated using a financial/replacement model to determine if it makes more sense to replace than repair (or continue to repair). If the project does not clear the financial model hurdle, then other subjective factors may dictate, but at least the financial model provides a starting point for the relative priority of the project.</p> <p>There are many factors to evaluate when considering whether to maintain or replace a portion of a system. Some of these factors are indicators that a leak may soon exist. Other factors must be considered in the event that a leak does occur. All these factors must be used to weigh one segment against another and ultimately to weigh one segment against all other capital projects. Some of these factors are:</p> <ul style="list-style-type: none"> • Number of corrosion leaks past five years • Cathodic protection history past three years • Type coating • Type pipe • Age of pipe • Type of joints • Size • Operating pressure • Class location • Surface cover over pipe • Land use of pipe • Public relations/customer inconvenience • Safety <p>It is generally understood that pipelines and facilities do not last forever and eventually need to be replaced.</p>
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 TECHNICAL STANDARD			
Title: Project Capital Allocation Prioritization Model – Gas	Procedure No. G-PN1002	Revision No. Original	Page 5 of 12

Type C: Load	<p>Type C projects must meet specific financial return criteria (i.e. hurdle ROE). Funding of this category is not limited since each project provides economic benefit to the corporation (i.e. feasible or not feasible). Projects not meeting the financial return criteria but necessary for strategic positioning are prioritized with projects in category D.</p>														
Type D – System Integrity – Capacity	<p>Type D projects include system expansions/improvements for strategic positioning, uprating systems or equipment to allow additional capacity, and installing additional pipe as needed to supply existing customers.</p> <p>A. <u>Priority Ranking</u></p> <p>Type D projects are to be ranked (when possible) in accordance with the following values. These are used to provide a starting point for relative project priority. Judgment as to the impact on public relations, economics, and risk would be used as necessary to adjust these rankings.</p> <p><u>Priority Ranking Key</u></p> <table style="margin-left: 20px;"> <tr><td>High Priority</td><td>1</td></tr> <tr><td>Medium High Priority</td><td>2</td></tr> <tr><td>Medium Priority</td><td>3</td></tr> <tr><td>Medium Low Priority</td><td>4</td></tr> <tr><td>Low Priority</td><td>5</td></tr> <tr><td>Require Attention</td><td>6</td></tr> <tr><td>Require More Justification</td><td>7</td></tr> </table> <p>1) <u>Priority Ranking 1 - High Priority</u></p> <ul style="list-style-type: none"> • Minimum system pressure 50% or less than nominal • Peak hour more than 110% of the meter capacity <p>2) <u>Priority Ranking 2 - Medium High Priority</u></p> <ul style="list-style-type: none"> • Minimal system pressure 51 - 70% of nominal • System pressure below adequate pressure for a specific large volume customer. • Peak hour at 100 - 110% of the meter capacity <p>3) <u>Priority Ranking 3 - Medium Priority</u></p> <ul style="list-style-type: none"> • Projects that are part of long term system growth plans and staged to distribute capital requirements to allow for orderly development of our distribution systems without massive investments in any given year. 	High Priority	1	Medium High Priority	2	Medium Priority	3	Medium Low Priority	4	Low Priority	5	Require Attention	6	Require More Justification	7
High Priority	1														
Medium High Priority	2														
Medium Priority	3														
Medium Low Priority	4														
Low Priority	5														
Require Attention	6														
Require More Justification	7														



TECHNICAL STANDARD

Title:	Procedure No.	Revision No.	Page
Project Capital Allocation Prioritization Model – Gas	G-PN1002	Original	6 of 12

Type E: Tools, Equipment or Other	<p>Type E projects are capital budget items that do not match any of the other previously outlined categories. Included in this group are specialty tools or equipment, facility additions or improvements such as a new service center or office.</p> <p>Type E projects are to be ranked (when possible) in accordance with the following values:</p> <p>These are used to provide a starting point for relative project priority. Judgment as to the impact on public relations, economics, and risk would be used as necessary to adjust these rankings.</p> <p style="margin-left: 40px;"><u>Priority Ranking Key</u></p> <ul style="list-style-type: none"> High Priority 1 Medium High Priority 2 Medium Priority 3 Medium Low Priority 4 Low Priority 5 Require Attention 6 Require More Justification 7
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TECHNICAL STANDARD			
Title:	Procedure No.	Revision No.	Page
Project Capital Allocation Prioritization Model – Gas	G-PN1002	Original	7 of 12

7.0 SUMMARY

Type A and C projects are always funded; Type A are government mandated projects and Type C provides financial return. Type A projects must be completed to accommodate city, county or state road reconstruction projects with timing dictated by the particular governmental agency.

Type B projects are integrity projects to replace pipe or equipment due to deterioration. Type D projects are integrity projects to enhance system capacities either by installing main or uprating pressure with associated pressure regulation modifications. Type E projects consist of non-distribution system items such as buildings, land, tools and equipment. Type B, D, and E projects would be judged and prioritized by state management. State management would assess the urgency of projects for eligibility in these categories, based on the criteria listed.

State Management should meet periodically throughout the year to reevaluate priorities consistent with the dynamics of project activity, capital availability, and regulatory decisions.

STATE OF CALIFORNIA
DEPARTMENT OF REVENUE
OFFICE OF THE ASSISTANT ATTORNEY GENERAL

NOTICE OF PROPOSED ASSESSMENT OF TAXES
FOR THE YEAR 2011

Notice is hereby given that the State Board of Equalization has determined that the proposed assessment of taxes for the year 2011 is as follows:

The proposed assessment of taxes for the year 2011 is as follows: [Faint text describing tax rates and amounts]

For information, the proposed assessment of taxes for the year 2011 is as follows: [Faint text]

 TECHNICAL STANDARD			
Title: Project Capital Allocation Prioritization Model – Gas	Procedure No. G-PN1002	Revision No. Original	Page 9 of 12
APPENDIX A			

APPENDIX A:**System Integrity Capital Justification Data**



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TECHNICAL STANDARD			
Title:	Procedure No.	Revision No.	Page
Project Capital Allocation Prioritization Model – Gas	G-PN1002	Original	11 of 12
APPENDIX A			

Integrity Project Prioritization

Pipe Replacement Plan

As the Company has grown and acquired new systems, the distribution systems have become a mixture of old and new pipe of various materials in varying condition. By adopting a long term pipe replacement program and consistent replacement methodology, the Company will also ensure future operating cost savings, as certain types of pipe currently existing in our distribution and transmission systems, such as cast iron, ductile iron and unprotected bare steel, require significantly greater maintenance and oversight, e.g. leak repair/surveys, cathodic protection, etc.

In developing this replacement program, priority was given to the types of pipe that experience the greatest occurrence of leaks and failures. The order of priority would be cast iron, ductile iron, unprotected bare steel, copper, PVC, and so on. Class location of each type of pipe was also given a high priority, in order to limit our liability and ensure customer safety. Class 4 type locations, or business districts, would be the greatest priority followed by class 3, 2, and 1, residential and rural classes of property. Additional analyses can be performed to identify the location of low pressure “ounce systems”, which could also fit into the overall capital improvement plan.

Beyond pipe replacement, the Company routinely spends a significant amount of Capital and O&M dollars to keep odorizers, district regulator stations, and town border stations in compliance with Public Service Commission/DOT requirements. Additional analyses can and should be performed to identify the age, reliability, and performance of these system components and, a similar methodology should be adopted for long-term improvements and or replacement.

The following schedule is prioritized by leak history, segment material, leak potential, and potential hazard leaks may cause. Systems will be divided into segments (over 500 ft., but less than 5,280 ft. of the same material and age) and evaluated to determine a replacement priority by a demerit point system. This program is intended to provide a methodology for long term pipe replacements, and is in no way is to be used for emergency situations.

Note: The minimum demerit point threshold for main replacements in Kansas is 500 points. Main segments rated below 500 points may furthermore be replaced at the Company's discretion based on additional safety factors and/or business considerations.

 TECHNICAL STANDARD			
Title: Project Capital Allocation Prioritization Model – Gas	Procedure No. G-PN1002	Revision No. Original	Page 12 of 12
APPENDIX A			

PRIORITIZATION METHODOLOGY

1) LEAK POTENTIAL:

POINTS:

Leak History (Last 5 years)	Class I = 50 pts Class II = 30 pts Class III = 10 pts
Vintage of Pipe	Pre 50's = 50 pts Pre 70's = 30 pts 70's & newer = 0 pts
Types of Joints	Mech. = 50 pts Other = 30 pts
Average Soil Type	Clay = 50 pts (0 to 3k Ohm cm) Normal = 30 pts (3k-10k Ohm cm) Sand = 10 pts (10k & over)

2) POTENTIAL HAZARD:

Class Location	Class 4 = 50 pts Class 3 = 30 pts Class 2 = 10 pts Class 1 = 0 pts
Surface Cover	Paved = 50 pts Earth = 30 pts
Foreign Utilities	Within 1 ft = 50 pts 1 to 3 ft = 30 pts > 3ft = 0 pts
Pressure Rating	≤1 and ≥100 lbs. = 50 pts 1 <> 99 lbs. = 30 pts

3) SEGMENT MATERIAL:

Unapproved	Cast Iron = 100 pts Ductile Iron = 50 pts Bare Steel = 50 pts PVC = 20 pts
Approved	PE, Coated & Wrapped steel = 10 pts

EXAMPLE Worksheet

Copy of blank Worksheet: MyBHC > Utilities > Gas Engineering Services > Scroll to bottom of Page—Click on G-PN1002 Integrity Project Priority-Pipe Replace Plan Worksheet

Segment Number	Example	Length	200 feet
Location	Cast Iron main	Size	8

1) LEAK POTENTIAL

LEAK HISTORY (Last 5 years)		TYPES OF JOINTS	
	(Enter # of leaks in appropriate box)		(Enter 1 in appropriate box)
Class 1	2	Mechanical & Screw	1
Class 2	1	Other	0
Class 3	0		
Total pts			50

VINTAGE OF PIPE		SOIL TYPE	
	(Enter 1 in appropriate box)		(Enter 1 in appropriate box)
Pre 1950	1	Clay (0-3K ohm cm)	1
1950-1970	0	Normal (3K-10K ohm cm)	0
1970-newer	0	Sand (10K & over)	0
Total pts			50

TOTAL POINTS LEAK POTENTIAL

280

EXAMPLE Worksheet

2) POTENTIAL HAZARD		FOREIGN UTILITIES		PRESSURE RATING	
CLASS LOCATION	(Enter 1 in appropriate box)	(Enter 1 in appropriate box)	(Enter 1 in appropriate box)	(Enter 1 in appropriate box)	(Enter 1 in appropriate box)
Class 4		0	Within 1 ft.		0
Class 3	1	30	1 to 3 ft.	1	30
Class 2		0	More than 3 ft.		0
Class 1		0			
		30	Total pts		30
SURFACE COVER		PRESSURE RATING			
	(Enter 1 in appropriate box)				
Hard	1	50	<1 or >100 lbs.	1	50
Normal		0	>1 or <99 lbs.		0
		50	Total pts		50
TOTAL POINTS POTENTIAL HAZARD		160			
3) SEGMENT MATERIAL					
	(Enter 1 for Bare steel/Ductile iron, enter 2 for Cast iron)				
Unapproved	2	100			
Approved (Enter 2 for PVC)	0	0			
		100	Total pts		
TOTAL POINTS SEGMENT MATERIAL		100			
TOTAL SEGMENT POINTS		540			
Notes:					
Other segment information to be considered:					

Copy of Worksheet: MyBHC > Utilities > Gas Engineering Services > Scroll to bottom of Page—Click on G-PN1002 Integrity Project Priority-Pipe Replace Plan Worksheet

Blank Worksheet

Segment Number	0	Length	0	feet
Location	0	Size	0	

1) LEAK POTENTIAL

		TYPES OF JOINTS			
		(Enter # of leaks in appropriate box)		(Enter 1 in appropriate box)	
Class 1		0	Mechanical & Screw	0	0
Class 2		0	Other	0	0
Class 3		0			
				Total pts	50

VINTAGE OF PIPE

		SOIL TYPE			
		(Enter 1 in appropriate box)		(Enter 1 in appropriate box)	
Pre 1950		0	Clay (0-3K ohm cm)	0	0
1950-1970		0	Normal (3K-10K ohm cm)	0	0
1970-newer		0	Sand (10K & over)	0	0
				Total pts	Total pts

TOTAL POINTS LEAK POTENTIAL

0

Item	Description	Quantity	Unit Price	Total Price
1
2
3
4
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10
11
12
13
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Blank Worksheet

2) POTENTIAL HAZARD

CLASS LOCATION	(Enter 1 in appropriate box)	FOREIGN UTILITIES	(Enter 1 in appropriate box)
Class 4	0	Within 1 ft.	0
Class 3	0	1 to 3 ft.	0
Class 2	0	More than 3 ft.	0
Class 1	0		
	0	Total pts	0
			Total pts

SURFACE COVER	(Enter 1 in appropriate box)	PRESSURE RATING	(Enter 1 in appropriate box)
Hard	0	≤1 or >100 lbs.	0
Normal	0	>1 or <99 lbs.	0
	0	Total pts	0
			Total pts

TOTAL POINTS POTENTIAL HAZARD

3) SEGMENT MATERIAL

	(Enter 1 for Bare steel/Ductile iron, enter 2 for Cast iron)	(Enter 1 for Bare steel/Ductile iron, enter 2 for Cast iron)
Unapproved	0	0
Approved (Enter 2 for PVC)	0	0
	0	Total pts
		Total pts

TOTAL POINTS SEGMENT MATERIAL

TOTAL SEGMENT POINTS

0

Notes:

Other segment information to be considered:

