



STATE OF RHODE ISLAND

DIVISION OF PUBLIC UTILITIES & CARRIERS

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TO: Rhode Island Public Utilities Commission

FROM: Alberico Mancini – Chief Regulatory Analyst, DPUC
Rod Walker – CEO & President, RW&A Consultancy (“RW&A”)

DATE: February 19, 2021

RE: Docket No. 5099 – National Grid’s FY2022 Gas ISR Plan

I. INTRODUCTION

On December 11, 2020, the Division of Public Utilities and Carriers (“Division”) and The Narragansett Electric Company, d/b/a National Grid (“National Grid” or “Company”) agreed to budget in the amount of \$180.146 M for the Company’s FY 2022 Gas Infrastructure, Safety and Reliability (“ISR”) Plan (the “Plan” or “FY 2022 Gas ISR Plan”). The agreed to budget was the product of a 3-month review by the Division which commenced when the Company submitted its initial proposal to the Division on October 6, 2020. This Memorandum details the Division’s evaluation process of the Plan, details the major concessions that were made to the Company’s proposed budget through that process, discusses the Company’s FY 2019 System Integrity Report (“SIR”) and Aquidneck Island long term capacity issues, discusses the Division’s concerns with the Company’s Responses to PUC 3-6 and 3-7, and summarizes the Company’s compliance with Order No. 23880 in Docket No. 4996 and FY 2021 3rd Quarter Update.¹

¹ The Commission has granted the Company’s request for extension of time to respond to a number of Commission data requests beyond the due date of the Division’s Position Memorandum and has also scheduled a technical conference on February 26, 2021 to discuss the Company’s revenue requirements in this docket. The Division reserves its right to supplement its Position Memorandum upon review of these data responses and/or other relevant materials or information presented by the Company in the conference.

II. THE DIVISION'S FY 2022 GAS ISR PLAN EVALUATION PROCESS

The Division's investigation and review of the Plan included the following activities:

- The Division propounded a First Set of Data Requests to National Grid on October 20, 2020 (National Grid responded to the Division's data requests on a rolling basis over the following month).
- On October 26 and 27, 2020, the Division participated in a virtual Walk-Through of the Plan with the Company. A copy of a syllabus of the Walk-Through is attached to this Memorandum.
- On November 23, 2020, the Division participated in a virtual meeting with the Company to discuss system safety and reliability trends, issues and review proposed changes to the Plan to address the proactive service replacement program proposed by the Company. The Division recommended the Company review the proposed program to address the replacement of more of the ~44,000 high risk bare steel services.
- On December 2, 2020, the Division participated in an additional virtual meeting with the Company to discuss the FY 21 LPP/Project status lists as of 11/23/20 and the FY 22 DRAFT Main Replacement Plan (MRP) Project List and the Company's changes to the Plan including a more robust proactive service replacement program.
- On December 9, 2020, the Division participated in an additional virtual meeting with the Company to discuss the FY 2022 Proposed Budget for the Aquidneck Island Long Term Capacity Options and final proposed changes to the Plan to address the most critical needs for safety and reliability.

In addition to the above activities, in July of 2020, the Division had conducted a virtual technical meeting with Company to discuss the performance of National Grid's leak prone mains and services replacement program and the Company's risk evaluation methodology, to obtain an update on the Company's Gas Business Enablement ("GBE") system implementation and to obtain a better understanding of the Company's enhanced proactive service replacement program. The Company agreed to review and propose a more robust Proactive Service Replacement program to address compliance with the requirement contained in Commission's Order No. 23880 in Docket No. 4996 that "[t]he Company shall develop and propose for the FY 2022, a proactive service replacement program for its 42,000 bare steel and copper services."

III. THE DIVISION'S REVIEW AND ANALYSIS OF THE PLAN

Financial

In its October 6, 2020 FY 2022 Gas Plan submission to the Division, the Company proposed a total budget of \$186.155 M.² Through the Division's discussions with the Company regarding the submission, the Company adjusted the categories and/or programs of purchased meters, reactive leaks, the Large

²The total budget amount the Commission approved for the Company's FY 2021 Gas ISR Plan was \$198.612 M.

Diameter Main Replacement Program, Southern RI Expansion Project and incremental paving costs as follows:

- Purchased Meters - were reduced \$2 M by advancing meter purchases in FY 2021 due to increasing meter costs in FY 2022.
- Reactive Leaks - was reduced \$1.6 M based on the previous three years of actual expenses.
- Large Diameter Main Replacement Program - was reduced \$1.296 M by deferring one of the two proposed cast iron lining projects in Providence.
- Southern RI Expansion Project - was reduced by \$1 M by deferring some work relating to the Cowesett Regulator Station and the Cranston Take Station to FY 2023. The Southern RI Project was originally scheduled to be completed in phases over a 4-year period with final completion in FY 2023. The Company was able to defer work and extend the construction period because the completed phases have met the additional demand on the system. Completion of the expansion project is now scheduled for FY 2025.
- Incremental Paving Costs - were adjusted to include updated unit costs from \$12.50 to \$14.00 per square yard and a reduced adoption rate on patches from 25% to 15% thereby reducing the total budget by \$0.112M.

Infrastructure

The Rhode Island natural gas distribution system continues to be one of the oldest in the United States and includes a large proportion of leak-prone and deteriorating infrastructure which in some instances was installed over 100 years ago. For reference, categories of leak-prone pipe in the distribution system include cast iron, wrought iron, unprotected steel, copper and Aldyl-A and Polybutylene plastic pipe, which are more brittle and prone to leaks than today's modern plastic pipe.

While the Company has done a reasonable job in trying to eliminate its leak-prone and deteriorating infrastructure through its replacement programs since acquiring the gas systems in Rhode Island in the early 2000s, it still has one of the largest collections of leak-prone infrastructure nationwide. From its 2019 SIR, the Company reports 703 miles of cast/ductile iron, 349 miles of unprotected bare steel mains and 44,125 unprotected bare steel/cast iron and 132 copper services.

The Company completed a "scrub" of its infrastructure records in 2020 during the implementation of its new GBE system. In doing so, the Company "found" 2,310 more unprotected bare steel services and 132 vulnerable copper services in CY2019. With the GBE system in place, the Company now has a complete inventory of its mains and services that comprise its gas system, which is one item that the Division has been requesting for the past two ISR cycles. The implementation of the GBE system, full system inventory and new risk ranking tools provided by DNV-GL's Synergi software system are viewed as a positive step in assisting the Company to truly "know" its system and more accurately identify the riskiest mains and services that need to be replaced, thereby reducing leaks and increasing the safety and reliability of the gas system.

Review of 2019 System Integrity Report

The Company prepares an annual System Integrity Report which provides historical data on leak receipts, leak repairs, open leaks, and an inventory of mains and services. The Company replaced only 51.9 miles of leak-prone main in 2019 instead of 70 miles/year to keep it on track to replace all of its pipe in twenty years or less. Its overall main and leak rates, leak receipts, and its inventory of Grade 1 leaks (most hazardous) have increased according to the data provided by the Company in its 2019 SIR (SIR, p. 15). The bright spot is that cast-iron main breaks have been reduced by 25% despite increased colder weather and heating degree days (HDD) for the winter season.

The leak rate overall has been trending upward over the last three years after reaching a low point in 2016 (SIR, p. 15). This trend includes Grade 1 leaks which increased from 644 in 2016 to 724 in 2017, 758 in 2018 and 767 in 2019 (SIR, p. 15). Based on the Company's 2019 SIR, the current replacement program has, as its timetable, the elimination of all leak-prone main within 20.3 years (SIR, p. 23). This timetable is based on 1,052 miles of leak prone main/51.9 miles of actual annual main replacement. This replacement schedule conflicts with the Company's calculation showing that it will take 15 years to complete the replacement of all leak prone gas mains and services. Unless the miles of main replacement per year is increased to 70 miles per year, the Company, under its current schedule, will take 20 years, not the requisite 15 years, to replace all of its leak prone mains and services. Additionally, for the past several years, the duration of the replacement program has remained stagnant at 20 years, and the years remaining to complete the replacement program have not been reduced. The Division supports the Company's effort to annually evaluate the performance of its replacement program and to adjust the program by increasing the replacement miles to 70 miles/year to ensure that the original time-table is maintained in accordance with industry standards.

Cast iron pipe and un-protected bare steel continue to make up the largest population of leak-prone main at 690 miles and 349 miles, respectively (SIR, p. 22). The current main replacement program pace for cast iron is 10 miles or 1.5% per year (SIR, p. 34) and 37 miles or 10.7% per year (SIR, p. 39) for bare steel. For services, un-protected bare steel services make up the majority of the leak-prone services at 44,103 with copper services at 132 and cast iron at 22 (SIR, p. 42), some as old as 75-100 years, including ~40,000 services with inside meter sets as reported in the Company's 2019 Distribution Integrity Management Program (DIMP) program (Appendix C, pp. RI-24, RI-25).

To understand why the leak rates were continuing to increase, the Division reviewed the Company's risk ranking methodology in great detail, holding multiple virtual meetings with key Company engineering staff in July and October of 2020. While the leak rate results were mixed for the past year, the Company's approach and its plan for the replacement of leak prone mains and services in the 2022 Gas ISR are still reasonable. Combined with the records data scrub during the GBE implementation, the Company is moving the replacement program in the right direction to replace the riskiest infrastructure and reduce leaks.

The Company additionally has responded to the Division's concern for a more effective proactive service replacement program to address its high-risk services (some as old as 75-100 years) and most with riskier inside meter sets that are not being replaced with its proactive main replacement program. The proactive service replacement program has been enhanced to address the riskiest services, especially the copper services. Also, the main replacement program methodology has been updated to ensure a higher percentage of riskiest services are being replaced with the main replacement program.

That said, the Company needs to continue to aggressively monitor both the proactive main and service replacement programs to ensure the riskiest mains and services are being replaced in the most expeditious manner possible to ensure the safety of its customers and the public and to improve the reliability of its gas system at the most economical cost possible. In addition, the Division will continue to aggressively monitor the performance of the Company's main and service replacement program to ensure the improvements the Company has made to the programs will result in the reduction of leak rates of its gas system overall (especially the hazardous leaks), thereby improving the safety and reliability of the gas distribution system for ratepayers and the public in general.

Aquidneck Island Long-Term Capacity Issues

The Company serves roughly 13,800 residential and business customers on Aquidneck Island. These customers rely on National Grid to keep their homes and businesses heated on the coldest winter days. On January 21, 2019, National Grid was forced to shut-down a significant portion of its natural gas distribution system due to a low-pressure event that resulted in a 7-day outage affecting 7,455 customers.

To mitigate the risk of an outage from occurring again due to an external failure on the gas transmission system or other similar event, the Company arranged for the installation of temporary portable LNG equipment at Old Mill Lane in Portsmouth, Rhode Island on an annual basis during the heating season until a long-term capacity solution could be studied and implemented. In September of 2020, the Company published the Aquidneck Island Long-Term Gas Capacity Study ("Study"). In the Study, the Company evaluated a number of options to transition from Old Mill Lane to a permanent, long-term gas capacity solution for the Island. After engaging with its customers on the Island and other major stakeholders throughout the State, the Company is considering adopting an approach which the Division understands combines aspects of two of the approaches contained in the Study.

Based on its attendance at Aquidneck Island gas reliability meetings, it is the Division's understanding that the Company is proposing a "hybrid" approach that includes both new infrastructure and non-infrastructure components to address the gas capacity constraint and vulnerability needs facing Aquidneck Island identified in the Study. The infrastructure element of the "hybrid" approach is focused on finding a replacement for the current portable LNG operations at Old Mill Lane on Aquidneck Island. The non-infrastructure elements of the "hybrid" approach offsets incremental demand growth, which would otherwise diminish the contingency capacity provided by new infrastructure over time. This non-infrastructure portfolio will be sized to offset incremental demand growth.

For the infrastructure part of the "hybrid" approach, the Company is considering one of three potential options to replace current portable LNG operations at Old Mill Lane: (1) Portable LNG at a new site on Navy-owned property; (2) Permanent LNG Storage at a new site on Navy-owned property; and (3) use of an LNG barge for offshore storage and vaporization. The final infrastructure solution, once chosen, will address the island's capacity constraint and provide contingency capacity in the event of upstream disruptions on the AGT G-4 lateral. In developing the Study, the Company modeled costs for each of these alternative solutions. All costs were expressed as Net Present Value (NPV) of Costs from 2021/22-2034/35 and will be subject to further revision if the Company develops new cost estimates. • Portable LNG at a New Site on Navy-Owned Property: \$101M NPV of Infrastructure costs • Permanent LNG Storage on Navy-Owned Property: \$107M-\$123M NPV of Infrastructure costs (depending on whether permanent LNG displaces trucked LNG at Old Mill Lane or new portable operations at a Navy site) • LNG Barge: \$72M NPV of Infrastructure costs.

In the FY 2022 Gas ISR Plan, the Company is proposing \$4.9 M to “examine potential solutions specific to Aquidneck Island to ensure that, in the near-term and long term, customers on the Island have access to the energy they need to heat their homes and run their businesses.” The \$4.9 M will largely be spent on site assessments, main extension preparation and other development work for the portable LNG at a new Navy owned property, permanent LNG storage at a new Navy owned site and use of an LNG barge for offshore storage. In view of the January 21, 2019 Aquidneck Island event, the vocal and the relatively widespread opposition on the Island to maintaining the *status quo* at Old Mill Lane, and the findings contained in the Study, the Division believes that the Company’s \$4.9 M request to investigate potential infrastructure solutions that will contribute to addressing gas capacity constraints on the Island is a reasonable and prudent component of the Plan. The Division concurs with the Company and does not support reducing the request in any manner.

The Division’s Concerns Regarding the Company’s Responses to PUC 3-6 and 3-7

As the Company explains in Data Response PUC 3-10, the Company’s initial capital spending plan included a budget of over \$195 M. The Company reduced this initial proposed capital spending amount by \$9 M prior to submitting its initial ISR plan proposal of \$186.146 M to the Division. Both during the Walk-Through of the Plan and in a number of telephone conferences that followed, the Division questioned the Company regarding many aspects of the initial budget. These aspects included the forecasted \$35 M underspend for FY 2021, continued delays due to the pandemic, how much work can reasonably be completed with current resources, advancing expenses into FY 2021, deferring any projects to FY 2023, and above all, balancing the safety and reliability of the system vs. rate impacts to customers. Towards the end of the Division’s review period, the Division pressed the Company as to whether it could make additional reductions without sacrificing the safety and reliability of its gas distribution system. The Company responded categorically that it could not. Only after the Company assured the Division that no further reductions could be made to the proposed budget without sacrificing the safety and reliability of its system did the Division agree to the \$180.146 M budget that has been submitted to the Commission. The Division is surprised and perplexed that the Company has now identified, in response to PUC 3-6 and 3-7, additional reductions of \$15.867 M which purportedly can be made without significantly increasing the risk profile of its gas distribution system.

While the safety and the reliability of the gas distribution system has always been of the utmost priority for the Division, following the Merrimack Valley incident in 2018 and the January 21, 2019 shutdown on Aquidneck Island, these requirements have assumed even greater importance in the Division’s assessment of the Company’s gas ISR plan and budget. As evidenced, not only in the two events mentioned above, but also last summer’s rolling black outs in Los Angeles and the most recent continuing rolling blackouts in Texas due to winter weather, reliability planning needs to have a higher priority.

The Division has reviewed the hypothetical budget reductions reflected in the response to PUC 3-6 and 3-7. As discussed in greater detail below, the Division does not believe that a number of these reductions can be made without compromising the safety and/or reliability of the gas distribution system. The Division, therefore, strongly disagrees with the Company’s statement that these reductions can be made without significantly increasing the risk profile of the system.

In Response to PUC 3-6 the Company suggests that it “is able to defer” the Low Pressure Elimination System Program to FY 2023. The Division does not concur with this statement. The Company proposed this non-discretionary, new program to replace low pressure (LP) systems. According to the Company’s filing, “National Grid implemented this program in response to recommendations of Federal and State government agencies following the Columbia Gas [Merrimack Valley] incident in Massachusetts in 2018.” As the Commission is aware from the Aquidneck Island event, low pressure systems exist at various places in the Company’s Rhode Island system. Upgrading these systems with high pressure services “installed to current standards with excess flow valves and service regulators” is directly targeted at “enhancing customer safety.” The Division does not believe it would be either reasonable or prudent to defer this work “to future years with minimal impact on risk” as the Company suggests.

In Response to PUC 3-7, the Company suggests that it can defer \$6.106 M in Main Replacement (Proactive) for FY 2022 and “defer to future years with minimal impact on risk” the \$350 K service replacement program. Again, the Division does not concur with the Company’s statement. Proactive replacement of leak prone mains and services is the driving force in the Company’s Gas ISR Program. Reducing budgets in these categories as proposed would be imprudent, particularly in view of the consistent number of Grade 1, 2 and 2A Leaks which continue to plague the Company’s system (SIR, pp. 15 & 17). Deferring expenditures in these categories, moreover, will maintain or increase the existing risk levels associated with aging leak-prone mains and services in the gas system. In the Division’s opinion, the Company should proactively act to reduce these levels in accordance with industry standards and practice to maintain the safety of the Company’s customers and other affected members of the public. The proposed spending level for this category contained in FY 2022 Gas ISR Plan accomplishes this important public safety aim. Lastly, deferring expenditures in these categories, in all probability, will lead to increased maintenance and repair costs. In turn, this will increase costs in other categories such as reactive leaks.

In its Response to PUC 3-7, the Company also suggests that it may able to reduce or defer certain identifiable work for the following programs:

- Heater Installation Program - \$2.967 M – gas system heaters located at take stations ensure proper conditioning and control of gas temperatures. The Dey Street gate station heater is 22 years old and requires replacement.
- Valve Installation/Replacement - \$500 K – Deferring installation of isolation valves on Aquidneck Island would further delay the Company’s flexibility to isolate low pressure sections of the system in the event of a low-pressure event as was the case on January 21, 2019.
- Gas System Reliability - \$1.978 M – deferring projects supporting system reliability would increase risk in areas in need of upgrades and would leave them vulnerable in a low pressure event.
- LNG - \$472 K – Upgrades to the Exeter LNG Facility have been deferred from FY2021 to FY2022 due to the impact of the COVID-19 pandemic. Deferring projects for a second year would impact the reliability of this critical peaking LNG facility during periods of high demand.

While the Division has not had an opportunity to consult with the Company regarding the possible impacts of these hypothetical reductions or deferrals since the time the Company assured the Division that they could not be made, the Division makes the following general observation regarding their implementation. The revenue requirement associated with a \$15.8 M or \$47.5 M ISR Plan budget reduction amounts to an annual decrease of approximately \$1 M or \$3 M, respectively. A \$1 M or \$3 M reduction in the revenue requirement will save an average residential heating customer approximately \$3 or \$10 per year, 0.25 cents or 0.83 cents per month per customer, respectively. As discussed with respect to proactive main replacement program, deferring expenditures for these programs will, in all probability, result in higher labor and material costs in the later years when the programs are implemented. In the meantime, because the programs are aimed at remediating what are oftentimes antiquated or inefficient systems, the Company will incur higher operating and maintenance costs until the systems are remediated. Both sets of costs most likely will far exceed the 0.25 cents or 0.83 cents per month the average customer will save by implementing the hypothetical reductions reflected in the Company’s Response to PUC 3-7. The safety and reliability risks associated with implementing the hypothetical \$15.8 million reduction far outweigh the benefit of obtaining a \$3.00 per year rate decrease for the average customer. The proposed program deferrals are not in the best interest of ratepayers.

Review of Company’s Compliance with Order No. 23880’s Action Items

In Order No. 23880, in Docket No. 4996, the Commission imposed several action items on the Company for implementation and/or completion during the FY 2021 Gas ISR Plan. The following chart reflects the status of the Company’s compliance with those items as set out in Order No. 23880:

ACTION ITEM	STATUS
The Company shall develop and maintain a comprehensive inventory of aging leak prone pipes	Initial inventory completed and is being scrubbed for accuracy
The Company shall develop and propose for the FY 2022, a proactive service replacement program for its 42,000 bare steel and copper services	Completed
The Company shall prepare to present at a technical session in July 2020. The Company should be prepared to discuss and demonstrate the methodology for assessing the reduction of risk resulting from its replacement efforts	Completed
The Company shall continue to provide the Division with its Excel spreadsheets associated with each future Gas ISR filing, as part of its annual filing requirement	Provided
The Company shall continue to provide the Division with cost information and data of such sufficient detail to satisfy the Division as to the reasonableness of the cost estimates of the various components of the Southern RI Gas Expansion Project and to update the Division on these costs on a regular basis throughout the project, at no less than ninety-day intervals.	Provided

Review of Company's FY 2021 3rd Quarter Update

The Division has also reviewed the Company's FY2021 3rd Quarter Update which forecasts a \$35 M underspend through March 31, 2021 (End of fiscal year). Most if not all of the underspend is attributable to the 2019 Global Pandemic. In reviewing the FY 2022 budget, the Division verified that the Company's intention was to incorporate any work not completed in FY 2021 into the FY 2022 budget and reconciling the FY 2021 actual spend in the annual ISR reconciliation which is filed in August as part of the Company's Distribution Adjustment Charge filing. Therefore, the \$35 M underspend will be returned to ratepayers beginning on November 1, 2021 and the \$35 M of work not completed in FY 2021 is included in the total FY 2022 proposed budget of \$180.146 M.

IV. CONCLUSION/RECOMMENDATIONS

The safety and reliability of the natural gas distribution system should be at the forefront of any infrastructure replacement program. It is in the Company's, its customers' and the general public's best interest to find the most cost effective, efficient, safe and reliable way to eliminate leak-prone infrastructure in a reasonable timeframe while at the same time continuing to monitor the Company's system for safety and reliability issues.

The proposed FY 2022 Gas ISR budget of \$180.146 M filed by the Company and agreed to by the Division is a reasonable approach to continue addressing the safety and reliability of the system.

The Company needs to continue to re-evaluate the effectiveness of its proactive replacement programs to ensure the riskiest leak prone aging mains and services are being replaced so the metrics around leak rates, *i.e.*, the inventory of leaks to be repaired, continue to trend downward, especially around the most hazardous leaks (Grade 1).

It is the Division's belief that the continued investment in replacing aging leak prone infrastructure is necessary and will accelerate the elimination of the riskiest Grade 1 and 2 leak prone pipes, thereby improving the safety and reliability of the gas system to the benefit of the Company's customers and the general public. Therefore, the Division strongly recommends that the Company not reduce the amount of leak prone mains and services being replaced in the 2022 Gas ISR Plan. This will ensure the riskiest infrastructure is replaced and further the safety and reliability of the gas system for the Company's customers and the affected public.

With regards to Aquidneck Island and the need for a long-term capacity solution on the Island, the Division believes that whatever the total solution the Company adopts for the Island, the Company needs to accelerate finding a viable, cost effective, long term infrastructure solution to continue to ensure the reliability of natural gas service to the residents of Aquidneck Island. The Company's request for \$4.9 M in funding contained in its FY 2022 Gas ISR Plan represents a reasonable "first-step" towards finding and implementing such a solution.

For all of the foregoing reasons, the Division recommends the Commission approve the agreed to FY 2022 Gas ISR Plan and budget as filed.

Day 1 Schedule

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Categories	Budget	Manager	New Budget Sponsor	New Investment Owner	Time Range	Allotment
<i>Corrosion</i>	\$1,214,000	Harmon, Michael	VanPelt, Donald	Harmon, Michael	9:30-9:50	20
<i>Valve Installation/Replacement (incl Storm Hardening & Middletown/Newport)</i>	\$1,179,000	Caliri, Stephen A.	Taddeo, Anthony P.	Elkin, Kasey	9:50-10:10	20
<i>Gas System Reliability</i>	\$3,056,995	Caliri, Stephen A.	Taddeo, Anthony P.	DeWolff, Christie	10:10-10:30	20
Southern RI Gas Expansion Project	\$20,438,000	Brown, Faye	Taddeo, Anthony P.; Wheeler, Brad; Glenning, Dan	Brown, Faye; Przybysz, Agnieszka; Hogan, Andrew	10:30-11:10	30
<i>Aquidneck Island Long Term Capacity Options</i>	\$4,900,000	Brown, Faye; Caldwell, Steven	Taddeo, Anthony P.	Brown, Faye	11:10-11:50	30
<i>Incremental Paving - Main Installation</i>	\$2,753,626		Kocon, Nathan; Schuster, Brian		11:50-12:05	15
<i>Incremental Paving - Patches</i>	\$1,200,150					
<i>PE Stamps</i>	\$1,515,000		Kocon, Nathan		12:05-12:15	10
<i>Lunch</i>					12:15-1:00	45
<i>Transmission Station Integrity</i>	\$1,740,000	Bleicken, Joshua	Greco, Stephen	Bleicken, Joshua	1:00-1:15	15
<i>Distribution Station Over Pressure Protection</i>	\$3,301,000	Bleicken, Joshua	Greco, Stephen	Zaccari, Justin	1:15-1:50	25
<i>System Automation</i>	\$1,321,000	Bleicken, Joshua	Greco, Stephen	Zaccari, Justin	1:50-2:05	15
<i>Heater Installation Program</i>	\$3,550,000	Bleicken, Joshua	Greco, Stephen	Zaccari, Justin	2:05-2:25	20
<i>Break</i>					2:25-2:35	
<i>Pressure Regulating Facilities</i>	\$7,425,000	Bleicken, Joshua	Greco, Stephen	Zaccari, Justin	2:35-3:05	30
<i>Allens Ave Multi Station Rebuild</i>	\$2,500,000	Bleicken, Joshua	Greco, Stephen	Zaccari, Justin; DiLorenzo, Paul	3:05-3:25	20
<i>Take Station Refurbishment</i>	\$1,300,000	Bleicken, Joshua	Greco, Stephen	Zaccari, Justin	3:25-3:45	20
<i>I&R - Reactive</i>	\$1,347,883	Bleicken, Joshua	Greco, Stephen	Zaccari, Justin	3:45-3:55	10
<i>LNG</i>	\$7,738,000	Cardoso, Steven	Greco, Stephen	Cardoso, Steven; Wong, Wilson	3:55-4:25	30



Day 2 Schedule

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Categories	Budget	Manager	New Budget Sponsor	New Investment Owner	Time Range	Allotment
<i>Purchase Meter (Replacement)</i>	\$4,879,917	Avery, Michael (Mavery)	Khan, Saadat	Avery, Michael (Mavery)	1:20-1:40	20
<i>Main Replacement (Proactive) - Large Diameter LPCI Program</i>	\$5,148,000	Kileti, Pradheep (Pkileti)	Khan, Saadat	Li, Wilson; Begnal, Nicole; Wheeler, Brad	1:40-1:55	15
<i>Replace Pipe on Bridges Atwells Avenue</i>	\$2,000,000	Kileti, Pradheep (Pkileti)	Khan, Saadat	Li, Wilson	1:55-2:05	10
<i>Main Replacement (Proactive) - Leak Prone Pipe</i>	\$4,000,000	Kileti, Pradheep (Pkileti)	Khan, Saadat	Kileti, Pradheep (Pkileti)	2:05-2:20	15
<i>Proactive Service Replacement</i>	\$66,276,800	Kileti, Pradheep (Pkileti)	Khan, Saadat	Li, Wilson	2:20-3:05	30
<i>Break</i>	\$350,000	Kileti, Pradheep (Pkileti)	Khan, Saadat	Kileti, Pradheep (Pkileti)	3:05-3:15	15
<i>Service Replacement (Reactive) - Non-Leaks/Other</i>	\$1,904,844	Kileti, Pradheep (Pkileti)	Khan, Saadat	Kileti, Pradheep (Pkileti)	3:15-3:30	15
<i>Reactive Leaks (CI Joint Encapsulation/Service)</i>	\$13,572,848	Kileti, Pradheep (Pkileti)	Khan, Saadat	Kileti, Pradheep (Pkileti)	3:30-3:50	20
<i>Low Pressure System Elimination (Proactive)</i>	\$500,000	Kileti, Pradheep (Pkileti)	Khan, Saadat	Kileti, Pradheep (Pkileti)	3:50-4:10	20

