In the Matter of

The Brooklyn Union Gas Company d/b/a National Grid NY & KeySpan Gas East Corporation d/b/a National Grid

Cases 19-G-0309 & 19-G-0310

August 2019

Prepared Exhibits of Staff Consumer Services Panel:

Chelsea Kruger Utility Analyst 2

Adam Polmateer Utility Consumer Assistance Specialist 4

Magen Bauer Utility Analyst 1

Jessica Phalen Utility Analyst 1

State of New York Office of Consumer Services Department of Public Service Three Empire State Plaza Albany, New York 12223-1350

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Exhibit SCSP-1

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Date of Request: May 31, 2019

Request No. DPS-311

Due Date: June 11, 2019

Request No. NG-367

KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

FROM: DPS Staff, Chelsea Kruger

TO: National Grid, Shared Services Panel

SUBJECT: CIS Replacement

Request:

Note: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

- 1. Provide all sanctions papers for the CIS replacement.
- 2. Explain whether management for both KEDNY and KEDLI have approved this project. If so, provide documentation of such approval. If not, explain why not.
- 3. What additional approvals are necessary at KEDNY, KEDLI, the parent companies, or affiliates? Identify any that have already been granted and provide documentation. For any that have not yet been granted, explain why not, and what process remains to seek and receive such approvals.

Response:

- 1. The sanctioning paper for the CIS Replacement project (INVP 5503) is still under development and has not yet received final approval from the National Grid plc Executive committee. It will be provided once it is finalized and approved.
- 2. Because of the size of the program, the CIS Replacement project sanctioning paper must be accepted and noted by several management committees and boards at various levels of the organization, including the U.S. Sanctioning Committee (USSC), Senior Executive Sanctioning Committee (SESC), National Grid USA (NGUSA) Board of Directors, the National Grid plc Executive committee, and National Grid plc Board of Directors. At this point, the sanctioning paper has been accepted and noted by USSC and was initially presented to the SESC. The SESC provided feedback on the paper, which is being incorporated.

3. Once the SESC has accepted and noted the paper, it will be sent to the NGUSA Board. Once the NGUSA Board has accepted and noted the paper, it will be sent to the National Grid plc Executive team for final approval. Once the National Grid plc Executive team has approved the paper it will be sent to the National Grid plc Board for acceptance and noting.

Name of Respondent: Jeffrey P. Martin Date of Reply: June 10, 2019

Date of Request: June 4, 2019

Request No. DPS-354

Due Date: June 14, 2019

NG Request No. NG-415

KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

FROM: DPS Staff, Chelsea Kruger and Magen Bauer

TO: National Grid, Shared Services Panel

SUBJECT: CIS Replacement

Request:

<u>Note</u>: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

Referring to pp. 20-23 of Exhibit_(SSP-5), provide the costs and any cost savings associated with each of the alternative options provided. If there are no costs savings associated with each option, provide a detailed explanation as to why not.

Response:

The Companies identified four options:

Option 1 is to maintain the status quo – continue operating on the legacy CRIS and CSS platforms. The Companies have not assessed incremental costs or associated cost savings for this option because maintaining the status quo is not considered an acceptable option for the various operational/customer/regulatory reasons explained in the project's business case.

Option 2 is to consolidate legacy systems. The Companies determined in March 2016 that this option was not the optimal longer-term path for enabling future customer services and capabilities, did not provide the best value to end use customers, and was not in alignment with regulatory expectations. The estimate of cost at the time for consolidating the CRIS system into the CSS system was roughly \$70 million for a single go-live, which included National Grid's New York and Massachusetts gas companies.

Option 3 is technology replacement, which is the recommendation supported by the Companies' filing. Costs and anticipated benefits of this option are provided in the testimony and Exhibits SSP-5 and SSP-6 of the Shared Services Panel.

Option 4 is outsourcing. The Companies did not consider outsourcing core billing services as a strategically viable option. Outsourcing core billing services would not solve the current challenges posed by the aging and disparate customer systems. Due to these considerations, a cost and benefit assessment of this option was not conducted.

Name of Respondent: Jeffrey P. Martin Date of Reply: June 13, 2019 Date of Request: June 4, 2019 Request No. DPS-368
Due Date: June 14, 2019 NG Request No. NG-429

KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

FROM: DPS Staff, Jessica Phalen

TO: National Grid, Shared Services Panel

SUBJECT: Credit Card Fees

Request:

<u>Note</u>: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

1. For each Company, provide the estimated per-transaction cost after credit and debit card fees are aggregated. Include in your response all calculations used to develop these figures and explain if the Companies expect a reduction in the per-transaction cost.

Response:

Current credit and debit card convenience fees for KEDNY/KEDNY residential customers.

Payment Amount	<u>Fee</u>
\$0.00 - \$600.00	\$2.25
\$600.01 - \$1,200.00	\$4.50

The payment amount thresholds and different fees noted above equates to an average fee of \$2.29 for KEDLI and \$2.27 for KEDNY, which are represented in Exhibit _____ (SSP-8) as the Fee Amount divided by Fee Count.

The current per transaction fee used to calculate aggregated KEDNY and KEDLI credit and debit card costs are based on:

- Cost of using the Speedpay Service
- ATM card processing fees (STAR, NYCE, PULSE and ACCEL)
- Merchant processing fees (Visa, MasterCard, Discover, American Express)
- Originating Depository Financial Institution (ODFI) fees
- Telephone toll charges
- Application hosting

• 24x7x365 technical support

The Companies recently issued a Request for Proposal (RFP) with a group of selected credit and debit card vendors that could result in an updated estimate of projected transaction fee costs. The Companies will supplement this response if the estimate changes once the RFP is completed and a vendor selected.

Name of Respondent: Lee Smith Date of Reply: June 11, 2019

Date of Request: June 20, 2019

Request No. DPS-613 Due Date: July 1, 2019 NG Request No. NG-799

KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

FROM: DPS Staff, Magen Bauer

TO: National Grid, Shared Services Panel

SUBJECT: Customer Service Quality — Revenue Adjustments

Request:

Note: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

- 1. For both KEDNY and KEDLI, list any instance(s) of revenue adjustments incurred under the Companies' customer service quality performance mechanism in the last three rate years.
 - a. For each instance, explain the reasons for under or over achieving the threshold performance, and describe the Companies' strategy to improve or maintain performance as applicable.
 - b. Provide copies of any reports, analyses, memoranda or other correspondence relative to such occurrences.

Response:

KEDNY and KEDLI met or exceeded all customer service quality targets in the last three calendar years. In addition, KEDNY and KEDLI achieved positive revenue adjustments of \$1.26 million and \$0.360 million, respectively, in each of calendar years 2017 and 2018.

Attachment 1 contains copies of KEDNY and KEDLI's Annual Service Quality Program Reports ("SQ Report") for calendar years 2016-2018. The SQ Report contains an overview of the Companies' customer service performance, details on performance results for the four customer service performance measures and the terminations and uncollectible metric, and an overall assessment of customer service for the year.

Name of Respondent:

Arlene Gans

Date of Reply: July 1, 2019

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 1 of 35

Tae Kim Counsel Legal Department

nationalgrid

May 23, 2019

VIA ELECTRONIC DELIVERY

Honorable Kathleen H. Burgess, Secretary New York State Public Service Commission Three Empire State Plaza Albany, New York 12223-1350

Case 16-G-0058 – Proceeding on Motion of the Commission as to the Rates, Charges, Re: Rules and Regulations of KeySpan Gas East Corporation d/b/a National Grid for Gas Service

Case 16-G-0059 – Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of The Brooklyn Union Gas Company d/b/a National Grid NY for Gas Service

Dear Secretary Burgess:

KeySpan Gas East Corporation d/b/a National Grid ("KEDLI") and The Brooklyn Union Gas Company d/b/a National Grid NY ("KEDNY") (together, the "Companies") further amend their 2018 Annual Service Quality Program Report ("Report") in Attachment 1. Due to human error, KEDLI's December 2018 performance on the percentage of calls answered within 30 seconds metric was incorrectly noted as 67.0 percent. The correct score is 77.5 percent, which changes the twelve-month average from 66.1 percent to 67.0 percent. This change does not affect KEDLI's performance against the service quality metric target for the percentage of calls answered within 30 seconds. No other changes have been made to the Report.

The Companies apologize for the inconvenience that this may have caused and will work to eliminate such errors in the future. Please feel free to contact the undersigned with any questions regarding this matter. Thank you for your time and attention.

•	•	
/s/ Tae I	Kim	
Tae Kim	ì	

Respectfully submitted,

Attachment

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Cases 19-G-0309 and 19-G-0310

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 2 of 35

Attachment 1

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 3 of 35

national**grid**

PSC Cases 16-G-0058/16-G-0059
Keyspan Gas East Corporation d/b/a National Grid
The Brooklyn Union Gas Company d/b/a National Grid NY
<u>Service Quality Assurance Program Report</u>
For Calendar Year 2018

Sheet 1

KEDNY Service Quality Metrics:	<u>TARGET</u>	2018 ANNUAL NEGATIVE REVENUE ADJUSTMENT	ACTUAL YTD RESULTS THROUGH 12/31/2018	Penalty Incurred
1. Annual PSC Complaint Rate Rate Interval (per 100K customers)	≤1.1 >1.1	\$0 \$4,680,000	0.6	\$0
2. Customer Satisfaction Customer Satisfaction Index	≥ 84.8% < 84.8%	\$0 \$4,680,000	87.9%	\$0
3. Telephone Answer Response Percent Calls Answered within 30 Seconds	≥ 60.6% < 60.6%	\$0 \$1,170,000	61.9%	\$0
4. Adjusted Bills Percent Net Adjusted Bills	≤1.69% 1.70% - 1.79% 1.80% - 1.89% ≥1.90%	\$0 \$585,000 \$877,500 \$1,170,000	0.56%	\$0
Total Negative Revenue Adjustment				\$ -
5. Terminations & Uncollectible Expense	TARGET (THRESHOLD)	2018 ANNUAL POSITIVE REVENUE ADJUSTMENT	ACTUAL YTD RESULTS THROUGH 12/31/2018	Incentive Amount
Number of Terminations Bad Debt Expense	≤ 34,638 ≤ \$12,494,661	\$1,260,000	29,214 \$ 12,334,392	\$1,260,000
Number of Terminations Bad Debt Expense	≤ 34,638 (≤ \$16,119,628)	\$540,000		
Number of Terminations Bad Debt Expense	(≤ 37,916) ≤ \$12,494,661	\$540,000		
Number of Terminations Bad Debt Expense	Any Other Any Other	\$0		
Total Positive Revenue Adjustment				\$ 1,260,000

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 4 of 35

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PSC Cases 16-G-0058/16-G-0059 Keyspan Gas East Corporation d/b/a National Grid The Brooklyn Union Gas Company d/b/a National Grid NY Service Quality Assurance Program Report For Calendar Year 2018

Summary Sheet 2

KEDLI Service Quality Metrics:	<u>TARGET</u>	2018 ANNUAL NEGATIVE REVENUE ADJUSTMENT	ACTUAL YTD RESULTS THROUGH 12/31/2018	Penalty Incurred
1. Annual PSC Complaint Rate Rate Interval (per 100K customers)	≤1.1 >1.1	\$0 \$3,960,000	0.4	\$0
2. Customer Satisfaction Customer Satisfaction Index	≥ 83.4% < 83.4%	\$0 \$3,960,000	88.2%	\$0
3. Telephone Answer Response Percent Calls Answered within 30 Seconds	≥ 62.2% < 62.2%	\$0 \$990,000	67.0%	\$0
4. Adjusted Bills Percent Net Adjusted Bills	≤ 1.69% 1.70% - 1.79% 1.80% - 1.89% ≥ 1.90%	\$0 \$495,000 \$742,500 \$990,000	0.16%	\$0
Total Negative Revenue Adjustment				\$ -
5. Terminations & Uncollectible Expense	TARGET (THRESHOLD)	2018 ANNUAL POSITIVE REVENUE ADJUSTMENT	ACTUAL YTD RESULTS THROUGH 12/31/2018	Incentive Amount
Number of Terminations Bad Debt Expense	≤ 12,470 ≤ \$4,392,413	\$840,000		
Number of Terminations Bad Debt Expense	≤ 12,470 (≤ \$5,602,568)	\$360,000	10,786 \$ 5,035,650	\$360,000
Number of Terminations Bad Debt Expense	(≤ 13,647) ≤ \$4,392,413	\$360,000		
Number of Terminations Bad Debt Expense	Any Other Any Other	\$0		
Total Positive Revenue Adjustment				\$ 360,000

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 5 of 35

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PSC Cases 16-G-0058/16-G-0059
KeySpan Gas East Corporation d/b/a National Grid
The Brooklyn Union Gas Company d/b/a National Grid NY
Service Quality Assurance Program Report
Calendar Year 2018 - Monthly Results

Sheet 3

KEDNY (The Brooklyn Union Gas Company):	Reference	<u>January</u>	February	March	<u>April</u>	May	<u>June</u>	<u>July</u>	August	September	October	November	<u>December</u>	<u>YTD</u>
1. Annual PSC Complaint Rate		0.40	0.30	0.50	1.10	0.60	0.90	0.40	0.60	0.20	0.70	1.00	0.40	0.6
2. Residential Transaction Satisfaction Index		84.9%	87.0%	84.4%	93.8%	82.5%	91.7%	93.4%	85.4%	86.6%	92.4%	83.6%	89.3%	87.9%
3. Adjusted Bills		0.54%	0.52%	0.54%	0.55%	0.76%	0.62%	0.60%	0.56%	0.57%	0.56%	0.47%	0.46%	0.56%
4. Percent Calls Answered within 30 Seconds		49.4%	33.4%	52.1%	50.8%	65.3%	75.0%	75.6%	74.4%	74.6%	62.0%	59.6%	70.9%	61.9%
5. Uncollectibles Number of Accounts Bad Debt Amount		1,992 \$ 506,508	1,732 \$ 459,532	2,127 \$ 634,233	3,545 \$ 777,495	3,673 \$ 862,330	3,402 \$ 1,332,935	2,740 \$ 1,429,115	2,640 \$ 2,123,102	2,645 \$ 1,589,761	1,529 \$ 1,067,051	1,586 \$ 872,882	1,603 \$ 679,447	29,214 \$ 12,334,392
KEDLI (KeySpan Gas East Corporation):														
1. Annual PSC Complaint Rate		0.70	0.50	0.70	0.20	0.70	1.00	0.30	0.30	0.30	0.20	0.30	0.00	0.4
2. Residential Transaction Satisfaction Index		91.3%	91.8%	86.6%	87.7%	87.1%	85.9%	89.9%	88.0%	87.2%	87.8%	87.2%	87.8%	88.2%
3. Adjusted Bills		0.29%	0.09%	0.10%	0.09%	0.20%	0.21%	0.18%	0.19%	0.20%	0.16%	0.08%	0.08%	0.16%
4. Percent Calls Answered within 30 Seconds		63.5%	68.6%	67.3%	66.0%	66.8%	63.1%	71.2%	73.0%	58.2%	63.9%	64.9%	77.5%	67.0%
5. Uncollectibles Number of Accounts Bad Debt Amount		71 \$ 493,784	287 \$ 278,431	127 \$ 143,468	958 \$ 174,566	1,987 \$ 369,524	1,709 \$ 345,666	1,353 \$ 469,722	1,684 \$ 1,058,977	1,529 \$ 654,128	1,064 \$ 386,539	15 \$ 340,866	2 \$ 319,979	10,786 \$ 5,035,650

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 6 of 35

Cases 16-G-0058 and 16-G-0059

The Brooklyn Union Gas Company d/b/a National
Grid NY and
KeySpan Gas East Corporation d/b/a
National Grid
Customer Service Quality Program Report
For the Year Ended December 31, 2018

KeySpan Gas East Corporation
The Brooklyn Union Gas Company
d/b/a National Grid
Case 19-G-0309/0310
Attachment 1 to DPS-613

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Cases 16-G-0058 and 16-G-0059

The Brooklyn Union Gas Company d/b/a National Grid NY

KeySpan Gas East Corporation d/b/a National Grid

Customer Service Quality Program Report

For the Year Ended December 31, 2018

I. INTRODUCTION

Pursuant to Sections IV.7.5 and V.7.5 of the Joint Proposal adopted by the Commission in its *Order Adopting Terms of Joint Proposal and Establishing Gas Rate Plans* (issued and effective December 16, 2016) in Cases 16-G-0058 and 16-G-0059, The Brooklyn Union Gas Company d/b/a National Grid NY ("KEDNY") and KeySpan Gas East Corporation d/b/a National Grid ("KEDLI") (collectively, the "Companies") submit this report on their respective Customer Service Quality Program ("SQ Program") for calendar year ("CY") 2018.

For CY 2018, KEDNY and KEDLI met all four of their customer service quality performance measures. In addition, KEDNY and KEDLI met their Terminations and Uncollectible Expense targets, resulting in positive revenue adjustments of \$1.260 million for KEDNY and \$0.360 million for KEDLI. The positive revenue adjustments will be included in the deferral account pursuant to Sections IV.6.1.6 and V.6.1.6 of the Joint Proposal.

This report includes an overview of the Companies' customer service performance during CY 2018, details on performance results for the four customer service performance measures and the Terminations and Uncollectible metric, and an overall assessment of customer service for the year.

II. CUSTOMER SERVICE 2018 OVERVIEW

Throughout CY 2018, KEDNY and KEDLI's Customer Service organization continued to implement best practices and process improvements to deliver the high-quality service the Companies' customers deserve. The centerpiece of the Companies' customer service efforts are the customer call centers in MetroTech Center in Brooklyn, New York. The MetroTech location houses two separate call centers, one for KEDNY and one for KEDLI. Both call centers are full service centers providing 24 hours a day, 365 days a year emergency service. KEDNY and KEDLI's professional customer service representatives are available to handle emergency calls and incoming customer inquiries such as general billing inquiries, meter reading issues, gas outage reporting and status, and available payment options. The call center management team works to promote the Companies' values, vision, and mission statement through coaching, evaluating, and measuring performance.

Another organization that contributes to customer service efforts is the Companies' Accounts Processing organization. This group is responsible for

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 8 of 35

ensuring bill accuracy, revenue integrity, and timely cash flow. To ensure the best customer experience possible, both the customer call centers and the Accounts Processing organization receive ongoing training throughout the year specific to meeting the needs of customers and complying with regulatory obligations.

The Companies also have groups located in MetroTech and Hicksville dedicated to handling escalated complaints received directly by the Companies and the Commission. This group, Escalated Complaint Management Downstate NY, consists of employees dedicated to resolving customer issues received by the Commission, ensuring that the Companies' policies are followed consistently, and managing the Commission's Quick Resolution Process. Under the Quick Resolution Process, customer complaints received by the Commission are sent to the affected company for resolution. These are referred to as Quick Resolutions ("QRS"). If the affected company and the customer cannot resolve the issue and it is sent back to the Commission by the customer, the company, or both, the complaint is categorized as a Standard Resolution ("SRS"). Complaints reaching the level of an SRS are considered charged complaints for purposes of the Companies' complaint rate performance metric (discussed below).

Every employee within the Customer Service organization at KEDNY and KEDLI is committed to providing the highest quality service to customers, as demonstrated by the Companies' performance under their respective SQ Program in CY 2018.

III. CUSTOMER SERVICE MEASURES

1. Annual PSC Complaint Rate

A PSC complaint is initiated with a dispute being filed by, or on behalf of, a customer with the Staff of the DPS Office of Consumer Services. The basis of the complaint must be one within the Companies' control. Only charged complaints are included in the PSC Complaint Rate measure. Complaints are measured monthly, and the metric is based on the average of the 12 monthly scores.

Table 3-1 depicts KEDNY and KEDLI's performance under the PSC Complaint Rate metric in CY 2018.

Table 3-1

Company	PSC Complaint Volume	PSC Complaint Rate ¹
KEDNY	88	0.6
KEDLI	31	0.4

¹ Per the *Order Adopting Revisions to Customer Service Reporting Metrics* in Case 15-M-0566 (issued and effective August 4, 2017), the PSC Complaint Rate will be reported at a one-tenth digit of accuracy.

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 9 of 35

Specifically, KEDNY achieved a PSC Complaint Rate of 0.6 per 100,000 customers in CY 2018. Complaint volumes for QRS (non-charged complaints) increased from 2017 levels; however, complaint volumes for SRS (charged complaints) were down in comparison to 2017 levels. QRS complaints increased by 26 percent while SRS complaints decreased by 2 percent.

KEDLI achieved a PSC Complaint Rate of 0.4 per 100,000 customers in CY 2018. Complaint volumes for both QRS (non-charged complaints) and SRS (charged complaints) increased compared to 2017 levels. QRS complaints increased by 55 percent and SRS complaints were up by 12 percent.

2. Customer Satisfaction

Customer satisfaction is measured monthly based on the satisfaction ratings resulting from a random survey of residential customers who have contacted KEDNY and KEDLI. The satisfaction level is measured based on the number of customers rating KEDNY and KEDLI between "6" and "10" on a ten-point satisfaction scale.

Satisfaction levels are measured monthly, and the metric is based on the average of the 12 monthly scores. Table 3-2 depicts the monthly performance scores for KEDNY and KEDLI in CY 2018.

Table 3-2

KE	KEDNY/KEDLI Residential Scores						
2018	Satisfaction with Services						
	KEDNY	KEDLI					
18-Jan	84.9%	91.3%					
18-Feb	87.0%	91.8%					
18-Mar	84.4%	86.6%					
18-Apr	93.8%	87.7%					
18-May	82.5%	87.1%					
18-Jun	91.7%	85.9%					
18-Jul	93.4%	89.9%					
18-Aug	85.4%	88.0%					
18-Sep	86.6%	87.2%					
18-Oct	92.4%	87.8%					
18-Nov	83.6%	87.2%					
18-Dec	89.3%	87.8%					
YTD	87.9%	88.2%					

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3. Adjusted Bills

The Adjusted Bills metric is a measure of the proportion of customer bills that require later adjustment as a result of errors by the Companies, expressed as a percentage of total customer bills. The metric is measured monthly and based on the average of the 12 monthly scores.

Table 3-3 shows the monthly and annual percentages of adjusted bills for both KEDNY and KEDLI. Tables 3-4 and 3-5 depict the monthly and annual billing statistics for KEDNY and KEDLI.

Table 3-3

2018 Adjusted Bill Statistics							
	KEDNY	KEDLI					
January	0.54%	0.29%					
February	0.52%	0.09%					
March	0.54%	0.10%					
April	0.55%	0.09%					
May	0.76%	0.20%					
June	0.62%	0.21%					
July	0.60%	0.18%					
August	0.56%	0.19%					
September	0.57%	0.20%					
October	0.56%	0.16%					
November	0.47%	0.08%					
December	0.46%	0.08%					
Total	0.56%	0.16%					

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 11 of 35

Table 3-4

2018 KEDNY Adjusted Bills							
	Total Bills	Total Adjusted Bills	Less: Non- Company Error Rebills ²	Net Adjusted Bills			
January	1,374,579	13,514	6,076	7,438			
February	1,217,461	12,985	6,623	6,362			
March	1,293,356	12,725	5,712	7,013			
April	1,277,691	11,320	4,238	7,082			
May	1,308,291	16,038	6,140	9,898			
June	1,283,773	13,170	5,169	8,001			
July	1,282,651	13,761	6,115	7,646			
August	1,427,133	13,110	5,180	7,930			
September	1,135,549	10,485	3,982	6,503			
October	1,456,126	12,783	4,612	8,171			
November	1,163,462	8,183	2,748	5,435			
December	1,268,512	9,022	3,190	5,832			
Total	15,488,584	147,096	59,785	87,311			

Table 3-5

2018 KEDLI Adjusted Bills								
	Total Bills	Total Adjusted Bills	Less: Non- Company Error Rebills ³	Net Adjusted Bills				
January	604,500	2,338	571	1,767				
February	603,407	1,085	533	552				
March	600,759	1,191	598	593				
April	609,027	1,301	762	539				
May	601,957	1,984	758	1,226				
June	607,768	2,110	814	1,296				
July	605,033	1,927	850	1,077				

² Non-Company error rebills include (i) an estimated bill replaced by a bill based on an actual reading and (ii) final bills that are re-billed to a different date.

³ Non-Company error rebills include (i) an estimated bill replaced by a bill based on an actual reading and (ii) a change in a customer bill because of switching to or from budget billing.

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 12 of 35

August	607,314	1,845	661	1,184
September	604,708	1,835	643	1,192
October	593,994	1,707	784	923
November	608,425	1,063	573	490
December	609,426	1,099	598	501
Total	7,256,318	19,485	8,145	11,340

4. Percent of Calls Answered within 30 Seconds

This is a measure of the proportion of customer service calls answered by a KEDNY and KEDLI representative within 30 seconds, expressed as a percentage of the total calls answered. The metric is measured monthly and based on the average of the 12 monthly scores.

Table 3-6 displays the CY 2018 monthly and annual service levels for KEDNY and KEDLI. Recently, KEDLI discovered that a subset of the customer return calls from outbound collections calls using the caller ID number have historically been excluded from the calculation of the Percent of Calls Answered metric and targets. Per discussions with Staff, beginning with the December 2018 data, the Performance Indicator reports filed by the Companies in Case 15-M-0566 began to include these calls in the metrics for purposes of Performance Indicator reporting. However, because these calls were not included in the historic baseline used to establish KEDLI's performance targets for the Percent of Calls Answered metric for purposes of the Companies' SQ Program, these calls will continue to be excluded from the SQ Program report.

Table 3-6

2018 Monthly Call Statistics					
KEDNY KEDLI					
January	49.4%	63.5%			
February	33.4%	68.6%			
March	52.1%	67.3%			
April	50.8%	66.0%			
May	65.3%	66.8%			
June	75.0%	63.1%			
July	75.6%	71.2%			
August	74.4%	73.0%			
September	74.6%	58.2%			
October	62.0%	63.9%			
November	59.6%	64.9%			

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 13 of 35

December	70.9%	77.5%
Total	61.9%	67.0%

5. <u>Terminations and Uncollectible Expense</u>

This metric is designed to provide an incentive for the Companies to reduce the number of residential service terminations for non-payment while decreasing, or maintaining, the level of bad debt from residential accounts. The metric measures the number of annual residential terminations and the total annual uncollectible expense (*i.e.*, write offs). The metric contains two tiers, under which, depending on performance, the Companies can achieve full or partial positive revenue adjustments.

KEDNY

Under the first tier of the metric, KEDNY can earn a positive revenue adjustment of \$1.260 million if it achieves both of the following targets:

Residential Terminations*	Bad Debt Expense
≤ 34,638	≤\$12,494,661

^{*&}quot;Terminations" means actual residential terminations completed, not the number of termination notices issued.

If KEDNY achieves one of the above targets, it can earn a positive revenue adjustment of \$0.540 million under the second tier of the metric, provided the other target is at or below the following levels:

Residential Terminations	Bad Debt Expense
≤ 37,916	≤\$16,119,628

KEDLI⁴

Under the first tier of the metric, KEDLI can earn a positive revenue adjustment of \$0.840 million if it achieves both of the following targets:

Residential Terminations	Bad Debt Expense
≤ 12,470	≤ \$4,392,413

^{*&}quot;Terminations" means actual residential terminations completed, not the number of termination notices issued.

⁴ KEDLI's targets are set forth in the April 14, 2017 correspondence filed by KEDLI in Case 16-0058 per Section V.7.8 of the Joint Proposal.

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 14 of 35

If KEDLI achieves one of the above targets, it can earn a positive revenue adjustment of \$0.360 million under the second tier of the metric, provided the other target is at or below the following levels:

Residential Terminations	Bad Debt Expense
≤ 13,647	≤\$5,602,568

KEDNY and KEDLI CY 2018 Performance

Table 3-7 shows the actual Terminations and Bad Debt Expense for CY 2018 for both KEDNY and KEDLI.

Table 3-7

2018 Terminations and Bad Debt Expense				
Residential Bad Debt				
Terminations		Expense		
KEDNY	29,214	\$12,334,392		
KEDLI	10,786	\$5,035,650		

In CY 2018, KEDNY met both the Residential Terminations target as well as the Bad Debt Expense target under the first tier of the metric. As such, KEDNY achieved a positive revenue adjustment of \$1.260 million. KEDLI met the Residential Terminations target under the first tier of the metric, but missed the Bad Debt Expense target; however, KEDLI was above the threshold for Bad Debt Expense under the second tier of the metric. As such, KEDLI achieved a positive revenue adjustment of \$0.360 million for CY 2018.

IV. OVERALL ASSESSMENT OF CUSTOMER SERVICE

For KEDNY and KEDLI, CY 2018 was a year of tremendous hard work, consistent improvement, and dedication aimed at exceeding customer expectations. The Companies succeeded in surpassing target levels for all four of the Customer Service measures and achieving positive revenue adjustments for the Terminations and Uncollectible Expense metrics. In CY 2019, the Companies will continue to work at improving customer satisfaction.

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nationalgrid

Patric R. O'Brien Assistant General Counsel

March 30, 2018

VIA ELECTRONIC FILING

Honorable Kathleen H. Burgess Secretary New York State Public Service Commission Three Empire State Plaza Albany, New York 12223-1350

Re: Case 16-G-0058 – Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of KeySpan Gas East Corporation d/b/a National Grid for Gas **Service**

Case 16-G-0059 - Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of The Brooklyn Union Gas Company d/b/a National Grid NY for Gas Service

Dear Secretary Burgess:

In accordance with Sections IV.7.5 and V.7.5 of the Joint Proposal adopted by the Commission in its Order dated December 16, 2016 in the above-captioned matters, KeySpan Gas East Corporation d/b/a National Grid and The Brooklyn Union Gas Company d/b/a National Grid NY respectfully submit their Annual Service Quality Program Report for calendar year 2017.

Thank you for your time and attention.

Respectfully submitted,

Patric R. O'Brien Patric R. O'Brien

Attachments

Luann Scherer cc:

Ron Caulkins Aric Rider Denise Gerbsch

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 16 of 35

Cases 16-G-0058 and 16-G-0059

The Brooklyn Union Gas Company d/b/a National Grid NY and KeySpan Gas East Corporation d/b/a National Grid Service Quality Assurance Program Report For the Year Ended December 31, 2017

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 17 of 35

Cases 16-G-0058 and 16-G-0059
The Brooklyn Union Gas Company d/b/a National Grid NY
KeySpan Gas East Corporation d/b/a National Grid
Service Quality Assurance Program Report
For the Year Ended December 31, 2017

I. <u>INTRODUCTION</u>

Pursuant to Sections IV.7.5 and V.7.5 of the Joint Proposal adopted by the Commission in its *Order Adopting Terms of Joint Proposal and Establishing Gas Rate Plans* (issued and effective December 16, 2016) in Cases 16-G-0058 and 16-G-0059, The Brooklyn Union Gas Company d/b/a National Grid NY ("KEDNY") and KeySpan Gas East Corporation d/b/a National Grid ("KEDLI") (collectively, the "Companies") submit this report on their respective Customer Service Quality Program ("SQ Program") for calendar year ("CY") 2017.

For CY 2017, KEDNY and KEDLI met all four of their customer service quality performance measures. In addition, KEDNY and KEDLI met their Terminations and Uncollectible Expense targets, resulting in positive revenue adjustments of \$1.260 million for KEDNY and \$0.360 million for KEDLI. The positive revenue adjustments will be included in the deferral account pursuant to Sections IV.6.1.6 and V.6.1.6 of the Joint Proposal.

This report includes an overview of the Companies' customer service performance during CY 2017, details on performance results for the four customer service performance measures and the Terminations and Uncollectible metric, and an overall assessment of customer service for the year.

II. CUSTOMER SERVICE 2017 OVERVIEW

Throughout CY 2017, KEDNY and KEDLI's Customer Service organization continued to implement best practices and process improvements to deliver the service that the Companies' customers deserve. The centerpiece of the Companies' customer service efforts are the customer call centers in MetroTech Center in Brooklyn, New York. The MetroTech location houses two separate call centers, one for KEDNY and one for KEDLI. Both call centers are full service centers providing 24 hours a day, 365 days a year emergency service. KEDNY and KEDLI's professional customer service representatives are available to handle emergency calls and incoming customer inquiries such as general billing inquiries, meter reading issues, gas outage reporting and status, and available payment options. The call center management team works to promote the Companies' values, vision, and mission statement through coaching, evaluating, and measuring performance.

Cases 19-G-0309 and 19-G-0310

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 18 of 35

Another organization that contributes to customer service efforts is the Companies' Accounts Processing organization. This group is responsible for ensuring bill accuracy, revenue integrity, and timely cash flow. To ensure the best customer experience possible, both the customer call centers and the Accounts Processing organization receive ongoing training throughout the year specific to meeting the needs of customers and complying with regulatory obligations.

The Companies also have groups located in MetroTech and Hicksville dedicated to handling escalated complaints received directly by the Companies and the Commission. This group, Escalated Complaint Management Downstate NY, consists of employees dedicated to resolving customer issues received by the Commission, ensuring that the Companies' policies are followed consistently, and managing the Commission's Quick Resolution Process. Under the Quick Resolution Process, customer complaints received by the Commission are sent to the affected company for resolution. These are referred to as Quick Resolutions ("QRS"). If the affected company and the customer cannot resolve the issue and it is sent back to the Commission by the customer, the company, or both, the complaint is categorized as a Standard Resolution ("SRS"). Complaints reaching the level of an SRS are considered charged complaints for purposes of the Companies' complaint rate performance metric (discussed below).

Every employee within the Customer Service organization at KEDNY and KEDLI is committed to providing the highest quality service to customers, as demonstrated by the Companies' performance under their respective Customer Service Quality Program in CY 2017.

III. <u>CUSTOMER SERVICE MEASURES</u>

1. Annual PSC Complaint Rate

A PSC complaint is initiated with a dispute being filed by, or on behalf of, a customer with the Staff of the DPS Office of Consumer Services. The basis of the complaint must be one within the Companies' control. Only charged complaints are included in the PSC Complaint Rate measure. Complaints are measured monthly and the metric is based on the average of the 12 monthly scores.

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 19 of 35

Table 3-1 depicts KEDNY and KEDLI's performance under the PSC Complaint Rate metric in CY 2017.

Table 3-1

Company	PSC Complaint Volume	PSC Complaint Rate ¹
KEDNY	70	0.5
KEDLI	20	0.3

Specifically, KEDNY achieved a PSC Complaint Rate of 0.47 per 100,000 customers in CY 2017. Complaint volumes for QRS (non-charged complaints) decreased from 2016 levels; however, complaint volumes for SRS (charged complaints) were up in comparison to 2016 levels. QRS complaints decreased by ten percent while SRS complaints increased by 19 percent.

KEDLI achieved a PSC Complaint Rate of 0.28 per 100,000 customers in CY 2017. Complaint volumes for both QRS (non-charged complaints) and SRS (charged complaints) decreased compared to 2016 levels. QRS complaints decreased by 29 percent and SRS complaints were down by 55 percent.

2. <u>Customer Satisfaction</u>

Customer satisfaction is measured monthly based on the satisfaction ratings resulting from a random survey of residential customers who have contacted KEDNY and KEDLI. The satisfaction level is measured based on the number of customers rating KEDNY and KEDLI between "6" and "10" on a ten point satisfaction scale.

Satisfaction levels are measured monthly and the metric is based on the average of the 12 monthly scores. Table 3-2 on the next page depicts the monthly performance scores for KEDNY and KEDLI in CY 2017.

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¹ Per the *Order Adopting Revisions to Customer Service Reporting Metrics* in Case 15-M-0566 (issued and effective August 4, 2017), the PSC Complaint Rate will be reported at a one-tenth digit of accuracy.

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 20 of 35

Table 3-2

KEDNY/KEDLI Residential Scores				
2017	Satisfaction with Services			
	KEDNY KEDLI			
17-Jan	94.2%	87.2%		
17-Feb	82.9%	90.7%		
17-Mar	87.0%	84.1%		
17-Apr	88.5%	85.2%		
17-May	92.9%	87.4%		
17-Jun	88.5%	91.0%		
17-Jul	92.6%	93.2%		
17-Aug	88.1%	90.6%		
17-Sep	86.3%	86.5%		
17-Oct	94.4%	87.2%		
17-Nov	91.6% 85.8%			
17-Dec	95.5%	89.1%		
YTD	90.2%	88.2%		

3. Adjusted Bills

This is a measure of the proportion of customer bills that require later adjustment as a result of errors by the Companies, expressed as a percentage of total customer bills. The metric is measured monthly and based on the average of the 12 monthly scores.

Table 3-3 on the next page displays the monthly and annual percentages of adjusted bills for both KEDNY and KEDLI. Tables 3-4 and 3-5 depict the monthly and annual billing statistics for KEDNY and KEDLI.

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 21 of 35

Table 3-3

2017 Adjusted Bill Statistics					
KEDNY KEDLI					
January	0.59%	0.12%			
February	0.63%	0.11%			
March	0.62%	0.11%			
April	0.60%	0.14%			
May	0.59%	0.20%			
June	0.67%	2.26%			
July	0.65%	0.20%			
August	0.67%	0.22%			
September	0.59%	0.22%			
October	0.60%	0.20%			
November	0.49%	0.13%			
December 0.40%		0.11%			
Total	0.59%	0.34%			

Table 3-4

2017 KEDNY Adjusted Bills				
	Total Bills	Total Adjusted Bills	Less: Non- Company Error Rebills ²	Net Adjusted Bills
January	1,273,130	12,309	4,853	7,456
February	1,244,465	13,000	5,193	7,807
March	1,345,717	14,413	6,083	8,330
April	1,160,740	11,573	4,617	6,956
May	1,335,621	14,961	7,068	7,893
June	1,352,653	15,206	6,133	9,073
July	1,215,946	14,111	6,242	7,869
August	1,346,365	14,811	5,727	9,084
September	1,241,327	11,445	4,100	7,345
October	1,258,108	12,210	4,637	7,573
November	1,194,071	9,546	3,662	5,884

 $^{^2}$ Non-Company error rebills include (i) an estimated bill replaced by a bill based on an actual reading and (ii) final bills that are re-billed to a different date.

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 22 of 35

December	1,351,349	9,680	4,215	5,465
Total	15,319,492	153,265	62,530	90,735

Table 3-5

2017 KEDLI Adjusted Bills				
	Total Bills	Total Adjusted Bills	Less: Non- Company Error Rebills ³	Net Adjusted Bills
January	594,255	1,246	506	740
February	602,087	1,181	502	679
March	604,880	1,240	547	693
April	586,788	1,510	674	836
May	612,908	1,852	631	1,221
June	606,799	14,488	798	13,690
July	603,921	2,002	802	1,200
August	601,005	1,916	565	1,351
September	600,129	1,908	560	1,348
October	580,887	1,868	687	1,181
November	620,055	1,339	559	780
December	601,817	1,152	474	678
Total	7,215,531	31,702	7,305	24,397

4. Percent of Calls Answered within 30 Seconds

This is a measure of the proportion of customer service calls answered by a KEDNY and KEDLI representative within 30 seconds, expressed as a percentage of the total calls answered. The metric is measured monthly and based on the average of the 12 monthly scores.

Table 3-6 displays the monthly and annual service levels for CY 2017, including calls answered by outsourced contact centers, for both KEDNY and KEDLI.

³ Non-Company error rebills include (i) an estimated bill replaced by a bill based on an actual reading and (ii) a change in a customer bill because of switching to or from budget billing.

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 23 of 35

Table 3-6

2017 Monthly Call Statistics			
	KEDNY	KEDLI	
January	46.8%	79.4%	
February	40.3%	76.7%	
March	56.9%	77.1%	
April	66.8%	80.7%	
May	55.3%	74.1%	
June	53.7%	63.9%	
July	73.8%	59.7%	
August	76.8%	71.8%	
September	87.3%	68.6%	
October	84.3%	70.8%	
November	65.8%	68.1%	
December	66.8%	65.6%	
Total	64.6%	71.4%	

5. Terminations and Uncollectible Expense

This metric is designed to provide an incentive for the Companies to reduce the number of residential service terminations for non-payment while decreasing, or maintaining, the level of bad debt from residential accounts. The metric measures the number of annual residential terminations and the total annual uncollectible expense (*i.e.*, write offs). The metric contains two tiers, under which, depending on performance, the Companies can achieve full or partial positive revenue adjustments.

KEDNY

Under the first tier of the metric, KEDNY has the ability to earn a positive revenue adjustment of \$1.260 million if it achieves both of the following targets:

Residential Terminations*	Bad Debt Expense
≤ 34,638	≤ \$12,494,661

^{*&}quot;Terminations" means actual residential terminations completed, not the number of termination notices issued.

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 24 of 35

If KEDNY achieves one of the above targets, it has the ability to earn a positive revenue adjustment of \$0.540 million under the second tier of the metric, provided the other target is at or below the following levels:

Residential Terminations	Bad Debt Expense
≤ 37,916	≤\$16,119,628

KEDLI⁴

Under the first tier of the metric, KEDLI has the ability to earn a positive revenue adjustment of \$0.840 million if it achieves both of the following targets:

Residential Terminations	Bad Debt Expense
≤ 12,470	≤ \$4,392,413

^{*&}quot;Terminations" means actual residential terminations completed, not the number of termination notices issued.

If KEDLI achieves one of the above targets, it has the ability to earn a positive revenue adjustment of \$0.360 million under the second tier of the metric, provided the other target is at or below the following levels:

Residential Terminations	Bad Debt Expense
≤ 13,647	≤ \$5,602,568

KEDNY and KEDLI CY 2017 Performance

Table 3-7 shows the actual Terminations and Bad Debt Expense for CY 2017 for both KEDNY and KEDLI.

Table 3-7

2017 Terminations and Bad Debt Expense			
	Residential	Bad Debt	
	Terminations	Expense	
KEDNY	31,563	\$11,782,802	
KEDLI	12,080	\$5,419,497	

In CY 2017, KEDNY met both the Residential Terminations target as well as the Bad Debt Expense target under the first tier of the metric. As such, KEDNY incurred a positive revenue adjustment of \$1.260 million. KEDLI met the Residential Terminations target under the first tier of the metric, but missed the

⁴ KEDLI's targets are set forth in the April 14, 2017 correspondence filed by KEDLI in Case 16-G-0058 per Section V.7.8 of the Joint Proposal.

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 25 of 35

Bad Debt Expense target; however, KEDLI was above the threshold for Bad Debt Expense under the second tier of the metric. As such, KEDLI incurred a positive revenue adjustment of \$0.360 million for CY 2017.

IV. OVERALL ASSESSMENT OF CUSTOMER SERVICE

For KEDNY and KEDLI, 2017 was a year of tremendous hard work, consistent improvement, and dedication aimed at exceeding customer expectations. The Companies succeeded in surpassing target levels for all four of the Customer Service measures and achieving positive revenue adjustments for the Terminations and Uncollectible Expense metric. In 2018, the Companies will continue to work at improving customer satisfaction.

Summary

Sheet 1

\$ 1,260,000

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 26 of 35

national**grid**

Total Positive Revenue Adjustment

PSC Cases 16-G-0058/16-G-0059 Keyspan Gas East Corporation d/b/a National Grid The Brooklyn Union Gas Company d/b/a National Grid NY Service Quality Assurance Program Report For Calendar Year 2017

2017 ACTUAL YTD ANNUAL NEGATIVE RESULTS THROUGH TARGET REVENUE ADJUSTMENT 12/31/2017 Penalty Incurred **KEDNY Service Quality Metrics:** 1. Annual PSC Complaint Rate Rate Interval (per 100K customers) ≤ 1.1 \$0 0.47 >1.1 \$4,680,000 2. Customer Satisfaction Customer Satisfaction Index ≥ 84.8% \$0 90.2% < 84.8% \$4,680,000 3. Telephone Answer Response Percent Calls Answered within 30 Seconds ≥ 60.6% \$0 64.6% \$1,170,000 < 60.6% 4. Adjusted Bills Percent Net Adjusted Bills ≤ 1.69% \$0 0.59% 1.70% - 1.79% \$585,000 1.80% - 1.89% \$877,500 ≥ 1.90% \$1,170,000 **Total Negative Revenue Adjustment** ACTUAL YTD TARGET ANNUAL POSITIVE RESULTS THROUGH 5. Terminations & Uncollectible Expense (THRESHOLD) REVENUE ADJUSTMENT 12/31/2017 Incentive Amount Number of Terminations ≤ 34,638 31,563 \$1,260,000 Bad Debt Expense \$1,260,000 11,782,802 ≤ \$12,494,661 Number of Terminations ≤ 34,638 Bad Debt Expense $(\leq $16,119,628)$ \$540,000 (≤ 37,916) Number of Terminations Bad Debt Expense ≤ \$12,494,661 \$540,000

Summary

Sheet 2

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 27 of 35

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PSC Cases 16-G-0058/16-G-0059 Keyspan Gas East Corporation d/b/a National Grid The Brooklyn Union Gas Company d/b/a National Grid NY Service Quality Assurance Program Report For Calendar Year 2017

For Calendar Year 2017 2017 ACTUAL YTD ANNUAL NEGATIVE RESULTS THROUGH TARGET REVENUE ADJUSTMENT 12/31/2017 Penalty Incurred **KEDLI Service Quality Metrics:** 1. Annual PSC Complaint Rate Rate Interval (per 100K customers) ≤ 1.1 \$0 0.28 >1.1 \$3,960,000 2. Customer Satisfaction Customer Satisfaction Index ≥ 83.4% \$0 88.2% \$0 \$3,960,000 < 83.4% 3. Telephone Answer Response Percent Calls Answered within 30 Seconds ≥ 62.2% \$0 71.4% \$990,000 < 62.2% 4. Adjusted Bills Percent Net Adjusted Bills \$0 0.34% ≤ 1.69% 1.70% - 1.79% \$495,000 1.80% - 1.89% \$742,500 ≥ 1.90% \$990,000 Total Negative Revenue Adjustment ACTUAL YTD TARGET ANNUAL POSITIVE RESULTS THROUGH 5. Terminations & Uncollectible Expense (THRESHOLD) REVENUE ADJUSTMENT 12/31/2017 **Incentive Amount** Number of Terminations ≤ 12,470 \$840,000 Bad Debt Expense ≤ \$4,392,413 12.080 Number of Terminations ≤ 12,470 \$360,000 \$360,000 Bad Debt Expense $(\le \$5,602,568)$ 5,419,497 Number of Terminations (≤ 13,647) Bad Debt Expense ≤ \$4,392,413 \$360,000 Total Positive Revenue Adjustment \$ 360,000

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 28 of 35

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PSC Cases 16-G-0058/16-G-0059
KeySpan Gas East Corporation d/b/a National Grid
The Brooklyn Union Gas Company d/b/a National Grid NY
Service Quality Assurance Program Report

Service Quality Assurance Program Report Summary Calendar Year 2017 - Monthly Results Sheet 3 KEDNY (The Brooklyn Union Gas Company): Reference January February March April May June July August September October November December YTD 1. Annual PSC Complaint Rate 0.20 0.20 0.40 0.50 0.60 0.20 0.60 0.70 0.50 0.60 0.60 0.50 0.5 2. Residential Transaction Satisfaction Index 94.2% 82.9% 87.0% 88.5% 92.9% 88.5% 92.6% 88.1% 86.3% 94.4% 91.6% 95.5% 90.2% 3. Adjusted Bills 0.63% 0.67% 0.49% 0.59% 0.62% 0.60% 0.59% 0.67% 0.65% 0.59% 0.60% 0.40% 0.59% 4. Percent Calls Answered within 30 Seconds 46.8% 40.3% 56.9% 66.8% 55.3% 73.8% 76.8% 87.3% 84.3% 66.8% 64.6% 5. Uncollectibles Number of Accounts 2.026 1.924 2.050 3.255 4.156 2.313 1.933 2,343 1.378 31,563 3.398 3,676 3.111 Bad Debt Amount 661,890 805,298 \$ 409,321 \$ 575,063 \$ 715,257 \$ 1,241,798 \$ 1,477,136 \$ 1,745,343 \$ 1,200,138 \$ 983,608 \$ 1,040,388 \$ 927,562 \$ 11,782,802 KEDLI (KeySpan Gas East Corporation): 1. Annual PSC Complaint Rate 0.30 0.00 0.20 0.00 0.20 0.00 0.20 0.80 0.30 0.70 0.30 0.30 0.3 2. Residential Transaction Satisfaction Index 87.2% 90.7% 84.1% 85.2% 87.4% 91.0% 93.2% 90.6% 86.5% 87.2% 85.8% 89.1% 88.2% 3. Adjusted Bills 0.12% 0.11% 0.11% 0.22% 0.22% 0.14% 0.20% 2.26% 0.20% 0.20% 0.13% 0.11% 0.34% 4. Percent Calls Answered within 30 Seconds 79.4% 76.7% 77.1% 80.7% 74.1% 59.7% 71.8% 68.6% 70.8% 65.6% 71.4% 5. Uncollectibles Number of Accounts 153 229 272 1,289 1,915 1,768 1,871 2,068 1,532 976 6 12,080 Bad Debt Amount \$ 421,313 \$ 282,724 \$ 218,509 \$ 223,419 \$ 350,480 \$ 440,966 \$ 520,248 \$ 788,264 \$ 686,381 \$ 703,081 \$ 344,845 \$ 439,268 \$ 5,419,497

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 29 of 35

nationalgrid

Patric R. O'Brien
Assistant General Counsel

March 29, 2017

Honorable Kathleen H. Burgess Secretary New York State Public Service Commission Three Empire State Plaza Albany, New York 12223

Re: Case 06-M-0878 – Joint Petition of National Grid plc and KeySpan Corporation for Approval of Stock Acquisition and Other Regulatory Authorizations

Case 12-G-0544 - In the Matter of the Commission's Examination of The Brooklyn Union Gas Company d/b/a National Grid NY's Earnings Computation Provisions and Other Continuing Elements of the Applicable Rate Plan.

Dear Secretary Burgess:

Pursuant to the Joint Proposal for Gas Safety, Reliability and Customer Service Performance Requirements ("JP-3) in Case 06-M-0878, KeySpan Gas East Corporation d/b/a National Grid ("KEDLI") and The Brooklyn Union Gas Company d/b/a National Grid NY ("KEDNY") submit for filing the 2016 Customer Service Quality Performance Requirements report.

KEDNY and KEDLI met all of their customer service requirements in 2016.

Pursuant to Section V.7.6 of the Joint Proposal adopted by the Commission in its *Order Adopting Terms of Joint Proposal and Establishing Gas Rate Plans* (issued and effective December 16, 2016) in Cases 16-G-0058 and 16-G-0059, because KEDLI achieved its customer satisfaction metric in 2016, the quadrupling provision set forth in the September 17, 2007 Merger Order in Case 06-M-0878 is eliminated.

Should you have any questions or concerns, please do not hesitate to contact me. Thank you for your time and attention.

Respectfully submitted,

/s/ Patric R. O'Brien
Patric R. O'Brien

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 30 of 35

NATIONAL GRID NYS RATE AGREEMENT CUSTOMER SERVICE PERFORMANCE REQUIREMENTS

For the Year Ended December 31, 2016

KEDNY:			KEDLI:		
Category	Benchmark	2016 Performance	Category	Benchmark	2016 Performance
PSC Complaint Rate	< 1.1 Complaints per 100,000 Customers	0.39	PSC Complaint Rate	< 1.1 Complaints per 100,000 Customers	0.63
Customer Satisfaction	> 84.8%	88.1%	Customer Satisfaction	> 83.4%	85.8%
Adjusted Bills	1.69% or less	0.59%	Adjusted Bills	1.69% or less	0.26%
Call Center Answer Rate	59.0% of calls answered by a CSR w/in 30 seconds	60.08%	Call Center Answer Rate	N/A	N/A

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 31 of 35

06-M-0878

NYS PSC Complaint Rate per 100,000 - The National Grid Companies

REGION	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	<u>2016</u>
Metro NY (PSC Threshold 1.1 per 100K)	0.1	0.3	0.8	0.5	0.6	0.3	0.3	0.2	0.5	0.6	0.3	0.2	0.39
SRS	1	4	10	6	7	4	4	2	6	8	4	3	59
QRS	107	85	103	125	124	102	100	128	117	126	143	105	1365
Long Island (PSC Threshold 1.1 per 100K)	0.3	0.9	2	0.3	0.9	0.3	0.5	1.2	0.7	0	0.2	0.2	0.63
SRS	2	5	12	2	5	2	3	7	4	0	1	1	44
QRS	38	52	49	42	42	47	38	36	44	27	36	36	487

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06-M-0878

KEDNY Residential Customer Satisfaction National Grid NY

NYC Gas	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	PSC Goal
2016	86.1%	89.5%	93.6%	83.8%	90.4%	87.9%	82.8%	88.2%	89.6%	89.8%	83.7%	91.7%	88.1%	84.8%

KEDLI Residential Customer Satisfaction National Grid NY

LI Gas	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	PSC Goal
2016	86.5%	87.5%	87.7%	83.6%	84.1%	79.3%	84.2%	89.1%	89.9%	85.4%	85.1%	87.7%	85.8%	83.4%

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 33 of 35

06-M-0878

KEDNY Adjusted Customer Bills - Service Quality - 2016

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total	% of Total
Total Bills	1,191,327	1,296,512	1,291,913	1,278,819	1,282,725	1,278,257	1,223,001	1,400,961	1,279,691	1,273,103	1,203,181	1,342,045	15,341,535	
Total Adjusted Bills	11,564	13,869	16,665	16,512	15,470	19,327	15,301	15,884	13,527	12,265	12,723	10,741	173,848	1.13%
Less Non Company Error Rebills	5,411	6,795	8,936	8,818	7,333	9,832	7,517	7,493	5,271	5,867	5,470	4,238	82,981	
Net Adjusted Bills	6,153	7,074	7,729	7,694	8,137	9,495	7,784	8,391	8,256	6,398	7,253	6,503	90,867	0.59%

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 34 of 35

06-M-0878

KEDLI Adjusted Customer Bills - Service Quality - 2016

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Bills	595,888	588,749	597,005	596,174	591,374	595,669	598,132	589,638	595,028	591,921	593,418	601,415	7,134,411
Total Adj (a)	2,212	1,502	1,743	1,412	1,589	1,805	1,681	1,489	1,664	1,314	1,044	841	18,296
Adjusted Bills (%)	0.37%	0.26%	0.29%	0.24%	0.27%	0.30%	0.28%	0.25%	0.28%	0.22%	0.18%	0.14%	0.26%

⁽a) Budget bills were removed because they were not counted as adjusted bills in the CAS system and, therefore, not reflected in the performance target.

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-613 Page 35 of 35

06-M-0878

KEDNY Telephone Answer Response - Service Quality - 2016

ITEM	INDICATOR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
3	Telephone Answer Response												
3a.	Total incoming calls received	251,758	260,176	263,114	246,432	248,019	238,468	224,431	245,934	239,788	243,080	236,761	245,091
3b.	Percent of calls answered	95.50%	94.54%	96.14%	96.10%	95.68%	97.36%	97.01%	94.77%	91.85%	94.71%	97.24%	97.56%
3c.	Total incoming calls requesting a representative	164,714	168,525	170,048	158,710	157,738	154,041	141,294	159,265	155,971	161,706	151,093	156,217
3d.	Percent of calls answered by a rep. within S/L (59.0% in 30 secs)	58.80%	49.90%	60.90%	57.80%	60.70%	66.50%	68.00%	54.90%	44.70%	58.10%	69.80%	70.80%
	YTD Service Level	58.80%	54.35%	56.53%	56.85%	57.62%	59.10%	60.37%	59.69%	58.02%	58.03%	59.10%	60.08%

Date of Request: June 20, 2019 Request No. DPS-617
Due Date: July 1, 2019 NG Request No. NG-803

<u>KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID</u> THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

FROM: DPS Staff, Chelsea Kruger and Magen Bauer

TO: National Grid, Shared Services Panel

SUBJECT: CIS Replacement

Request:

Note: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

- 1. Separately for 2016, 2017 and 2018, provide the number of high or critical priority failures and/or outages experienced in CSS.
 - a. Indicate how many of these failures/outages affected all of National Grid's U.S. businesses.
 - b. Indicate how many of these failures/outages affected only KEDLI.
 - c. Indicate how many of these failures/outages affected only National Grid's New York companies (Niagara Mohawk and KEDLI).
- 2. Separately for 2016, 2017 and 2018, provide the number of high or critical priority failures and/or outages experienced in CRIS.
 - a. Indicate how many of these failures/outages affected all of National Grid's U.S. businesses.
 - b. Indicate how many of these failures/outages affected only KEDNY.

Response:

For both CSS and CRIS, whenever there is a high or critical priority failure, it affects all companies that are maintained in the system. Therefore, the counts of failures will be the same for the system outages and those affecting NY Companies.

1. CSS critical or high failures/outages for 2016, 2017 and 2018:

CSS	Failures/Outages Affecting All NG US Business	Failures/Outages affecting KEDLI	Failures/Outages Affecting NY Business
2016	16	16	16
2017	11	11	11
2018	26	26	26

2. CRIS critical or high failure/outages for 2016, 2017 and 2018:

CRIS	Failures/Outages Affecting All NG US Business	Failures/Outages affecting KEDNY
2016	1	1
2017	6	6
2018	19	19

Name of Respondent: Daniel J. DeMauro Jr.

Date of Reply: July 1, 2019

Date of Request: July 2, 2019

Request No. DPS-765

Due Date: July 12, 2019

NG Request No. NG-1037

KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

FROM: DPS Staff, Adam Polmateer

TO: National Grid, Future of Heat Panel

SUBJECT: Economic Development Programs — NESE

Request:

Note: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

- 1. Assuming the Northeast Supply Enhancement ("NESE") project is not approved, provide a detailed description of the potential impacts to the Companies' Economic Development Grant programs.
 - a. Explain whether the Companies expect less participation in the programs without approval of the NESE project? If so, provide the contingencies for Economic Development (e.g., new programs, reduced budget etc.) if additional gas supply cannot be provided.
- 2. Assuming the NESE project is not approved, provide a detailed description of how KEDLI plans to provide gas supply to new customers that may qualify for the newly proposed Area Development Rate in KEDLI's service territory.

Response:

1. a. If the Northeast Supply Enhancement ("NESE") project is not approved, several of the Companies' existing economic development grant programs would experience less activity in terms of new applications and grant reimbursements. The programs most likely to be impacted in this manner would be the Capital Investment Incentive, Cinderella, Industrial Building Redevelopment and Cooperative Business Recruitment programs – all of which are designed to directly or indirectly incentivize the attraction and expansion of businesses in the Companies' service territory.

Other existing grant programs are less sensitive to the availability of additional natural gas supply and therefore are less likely to be impacted if NESE is not approved. These include the Manufacturing Productivity Program, the Cleantech Incubation program, and the Brownfield Redevelopment Assistance program. Furthermore, the Sustainable Gas and Economic Development program could experience an increase in activity if NESE is not approved, since that program supports economic development projects involving the demonstration of alternative natural gas technologies including anaerobic digestion and gasification of waste materials. Finally, the Companies' proposed new program, Economic Development and the Future of Heat, is designed to encourage customers to install non-pipeline alternatives to traditional gas service, and emerging gas technologies that may enable them to expand with little or no additional pipeline gas. Customer participation in this program should not be negatively impacted if NESE is not approved, and in fact its impact and value as a regional economic development tool may increase in a capacity constrained environment.

Because the total net impacts on customer participation at the program portfolio level have not been quantified, the Companies have not yet developed a detailed contingency plan for economic development in the event NESE is not approved. However, if NESE is not approved, the Companies would closely monitor economic activity and program participation and would consider proposing new programs and/or a decrease in funding, as appropriate.

2. If NESE is not approved, the population of customers qualifying for the proposed KEDLI Area Development Rate ("ADR") would be very limited because service upgrades for load increases would generally be prohibited. However, it is possible that the ADR could still function on a limited basis if NESE is not approved. For example, requests for non-firm service may be fulfilled if NESE is not approved, potentially allowing some economic development customers to continue with their business expansion projects and to receive discounts under the proposed ADR. The Companies will continue to assess the existing KEDNY ADR and the proposed KEDLI ADR to determine how they would function if NESE is not approved, and as the severity and duration of potential gas supply impacts become clearer.

Name of Respondent:
Arthur Hamlin

Date of Reply: July 11, 2019

Date of Request: July 12, 2019

Due Date: July 22, 2019

Request No. DPS-872

NG Request No. NG-1172

KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

FROM: DPS Staff, Chelsea Kruger and Magen Bauer

TO: National Grid, Shared Services Panel

SUBJECT: Customer Information System Replacement

Request:

Note: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

- 1. For both KEDNY and KEDLI, provide an MS Excel spreadsheet detailing a breakdown of CIS project capital expense & operating expense costs, in the following categories:
 - a. Software, by type (e.g. SAP versus Salesforce, application versus database, etc.), providing number of licenses/number of users, unit cost, total cost;
 - b. Technology Hardware, by type, providing quantities, unit cost, total cost;
 - c. Equipment/other devices, by type, providing unit cost, total cost;
 - d. Labor (separated by internal and contracted); with contracted broken into whatever categories make sense, i.e. Systems Integrator, Project Management consultants, trainers, etc., unit or hourly cost, total cost;
 - e. Rent in the event additional space is required for the implementation;
 - f. Enumerate any/all additional categories that were used to build the estimate for the CIS project costs; and
 - g. Other, if needed, but indicating what specifically is included in this category.

Response:

Attachment 1 provides a breakdown of CIS costs for KEDNY and KEDLI. In addition to the response to this request, the response to DPS-871 provides definitions of cost breakdowns and CNY-103 explains how all costs have been allocated to the various operating companies benefiting from CIS.

In building the financial model costs were grouped into the following categories:

Pre-Project Costs Non-Labor Project Costs Non-Labor Project Costs - Labor (Including SI & NG Resources) System Asset Costs Pre-Production Services

To assist with answering the request, row numbers have been included against each line item in Attachment 1.

- a. SAP software licenses (row 39) will be based on a single metric, Points of Delivery. This would allow unlimited use of the proposed perpetual software components, allowing both Organic and Inorganic Growth of up to 8 Million Points of Delivery or 12.5% above current levels. In addition, an S/4HANA relational database perpetual license (row 40) scalable to suit the needs of National Grid's business has been included. Additional application support costs are included in pre-production services (rows 41-44). The CIS program is not assuming the purchase of Salesforce licenses.
- b. The new SAP CIS will be a private cloud-based solution with a PaaS subscription covering infrastructure costs. See the response to DPS-871 for further information.
- c. Other equipment costs, network, and desktop computers are estimated incremental costs incurred for project activities (rows 8-9).
- d. Labor Costs (rows 13-37 including contingency) are estimated at 7,646 FTE months National Grid and 8,577 FTE months System Integrator over the life of the project or 2.6 million total labor hours (at an assumed 20 days/month and 8 hours/day).
- e. Incremental facility costs (rows 6-7).
- f. All other costs are listed on rows 1-5 and 10 & 11. A total cost summary is shown on rows 45-50 with row 49 being the calculation of AFUDC.

Name of Respondent: Jeffrey P. Martin Date of Reply: July 22, 2019

Total CIS Cost KEDNY

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-872 Page 1 of 3

Ī			Pre-Project Costs - Non-Labor				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
Row #	Proj/ O&M	CapEx/ OpEx	Cost Element	Total Years 1-3	Total Years 4-13	Program Total	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33
	Pre	Ор	Pre-CIS - (Phases 1 & 2)	\$ 490,085	s -	\$ 490,085	\$ 490,085	\$ -	s -	s -	s -	ŝ -	s -	s -	s -	s -	s -	s -	s -	s -	s -	s -
	Pre	Ор	RFP & Pre-Project Activities Costs - (Phase 3)	\$ 657,935	\$ -	\$ 657,935	\$ -	\$ 373,493	\$ 284,441	\$ -	\$ -	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Pre Pre	Cap	RFP & Pre-Project Activities Costs - (Phase 3) External Contract Review Legal Costs	\$ 177,776 \$ 53.333	\$ -	\$ 177,776 \$ 53.333	\$ -	\$ - \$ 26.666	\$ 177,776 \$ 26.666		\$ -	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5	Pre	Сар	Data Cleanse	\$ 586,660	\$ -	\$ 586,660		\$ -	\$ 586,660		\$ -	5 -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
•		-	TOTAL	\$ 1,965,788	\$ -	\$ 1,965,788			\$ 1,075,544		\$ -		•	*	\$ -	*	\$ -		\$ -			\$ -
			Total Cap Ex % Total Op Ex %	\$ 764,436 \$ 1.201.352	\$ -	\$ 764,436 \$ 1,201,352		\$ - \$ 400.160	\$ 764,436 \$ 311.108		\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Ор	Total Op Ex 76	3 1,201,332	,	3 1,201,332	\$ 450,063	3 400,100	3 311,100	, -	, -	, -	, -	ş -	,	3	, -	, .	,	,	, .	
	Proi/	CapEx/	Project Costs - Non-Labor				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
	O&M	OpEx	Cost Element	Total Years 1-3	Total Years 4-13	Program Total	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33
6	Proj	Ор	Facilities - Physical space for project (Core)	\$ 9,787	\$ 78,340	\$ 88,126	\$ -	\$ -	\$ 9,787	\$ 24,467	\$ 29,361	24,512	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	Proj Proj	Op Op	Facilities - Physical space for project (Unique) Network & Desktop (Core)	\$ 20,628 \$ 24,467	\$ 170,646 \$ 236,591	\$ 191,274 \$ 261,058	\$ -	\$ -	\$ 20,628 \$ 24,467	\$ 51,570 \$ 73,402	\$ 61,884 \$ 97,869	57,192 65,320	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Proi	Op	Network & Desktop (Core)	\$ 51,570	\$ 507.879	\$ 559,449	s -	\$ -	\$ 51.570					s -	s -	\$ -	\$ -	s -	s -	\$ -	s -	s -
10	Proj	Op	Project Incidental Costs - Communications / Printing et	\$ -	\$ 311,108	\$ 311,108	\$ -	\$ -	\$ -	\$ 44,444	\$ 44,444			\$ 44,444	\$ 44,444	\$ 44,444	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Proj	Op	Third Party External Svcs (Fiserve, WU etc)	\$ - \$ 21.290	\$ 860,791	\$ 860,791	\$ -	\$ - \$ -	\$ -	\$ 215,198	\$ 430,395 \$ 174,047			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - \$ -
12	Proj	Up	Project Contingency TOTAL	\$ 21,290 \$ 127,742	\$ 433,071 \$ 2,598,425	\$ 454,361 \$ 2,726,167		*	\$ 21,290 \$ 127,742		\$ 1,044,279							*		\$ -		
		Cap	Total Cap Ex %	\$ -	\$ -	\$ -		\$ -	\$ -	\$ -	\$ -	5 -	\$ -	\$ -	\$ -	\$ -	\$ -		s -	s -	\$ -	\$ -
		Op	Total Op Ex %	\$ 127,742	\$ 2,598,425	\$ 2,726,167	\$ -	\$ -	\$ 127,742	\$ 676,548	\$ 1,044,279	664,266	\$ 53,333	\$ 53,333	\$ 53,333	\$ 53,333	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
_																						
Į	Proi/	Projes CapEx/	ct Costs - Labor (Inc SI & NG Resources)				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
		OpEx	Cost Element	Total Years 1-3	Total Years 4-13	Program Total	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33
13	Proj	Ор	Org Stand Up	\$ 533,328	\$ -	\$ 533,328	\$ -	\$ -	\$ 533,328	ş -	\$ - :		\$ -	\$ -	\$ -	\$ -	\$ -	ş -	\$ -	\$ -	\$ -	\$ -
	Proj	Op	Trainers	\$ 45,893	\$ 390,090	\$ 435,982	ş -	\$ -	\$ 45,893		\$ 183,572		s -	\$ -	\$ -	\$ -	\$ -	s -	\$ -	\$ -	ş -	s -
	Proj Proj	Cap	Controls - Reg compliance, SOX, etc Staff Aug - Project (Storm)	\$ -	\$ 281,094 \$ 2,409,376	\$ 281,094 \$ 2,409,376	\$ -	\$ -	\$ -	\$ 91,786		5 51,629	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Proj	Ор	Staff Aug - RTB stabilization (Bubble)	\$ -	\$ 2,610,158	\$ 2,610,158	\$ -	\$ -	\$ -	\$ -		2,610,158		s -	\$ -	\$ -	\$ -	s -	s -	\$ -	\$ -	s -
	Proj	Ор	Decommission old CIS systems	\$ -	\$ 3,628,761	\$ 3,628,761		\$ -	\$ -			453,595		\$ 907,190	\$ 907,190	\$ 453,595	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
			External Services - Core	\$ -	\$ 10,265,479	\$ 10,265,479		\$ -	\$ -		\$ 4,106,961		\$ -	\$ -	\$ -	\$ -	\$ -	ş -	\$ -	\$ -	\$ -	\$ -
	Proj Proj	Cap	External Services - Unique External Services - Core	\$ -	\$ 22,043,163 \$ 3,421,826	\$ 22,043,163 \$ 3,421,826	*	\$ - \$ -	\$ -		\$ 8,656,283 : \$ 1.368.987 :		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Proj	Ор	External Services - Unique	\$ -	\$ 7,347,721	\$ 7,347,721		\$ -	\$ -		\$ 2,885,428		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	Proj	Сар	Internal Services - Contracted - Core	\$ -	\$ 1,210,184	\$ 1,210,184	-	\$ -	\$ -		\$ 484,766		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24 25	Proj	Cap	Internal Services - Contracted - Unique Internal Services - Contracted - Core	\$ -	\$ 2,642,091 \$ 2.368.257	\$ 2,642,091 \$ 2,368,257		\$ - \$ -	\$ -		\$ 1,021,746 \$ 918,193		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	Proj	Op Op	Internal Services - Contracted - Core Internal Services - Contracted - Unique	\$ -	\$ 5,242,378	\$ 5,242,378	\$ -	ς .	\$ -	\$ 1,216,268			\$ -	\$ -	\$ -	\$ -	\$ -	s -	s -	\$ -	\$ -	\$ -
27	Proj	Сар	Internal Services - Core	\$ -	\$ 957,082	\$ 957,082	\$ -	\$ -	\$ -	\$ 179,954	\$ 336,289	440,839	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	Proj	Cap	Internal Services - Unique	\$ -	\$ 2,084,525	\$ 2,084,525	\$ -	\$ -	\$ -	\$ 379,291	\$ 708,799	996,434	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	Proj Proj	Op Op	Internal Services - Core Internal Services - Unique	\$ -	\$ 1,073,114 \$ 2,341,497	\$ 1,073,114 \$ 2,341,497	\$ -	\$ -	\$ -	\$ 379,329 \$ 799,515	\$ 385,173	308,612	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31	Proj	Ор	Max Attention - Opex	\$ -	\$ 695,975	\$ 695,975	\$ -	\$ -	\$ -	\$ 221,259	\$ 267,284		\$ -	\$ -	\$ -	\$ -	\$ -	S -	\$ -	\$ -	\$ -	\$ -
32	Proj	Сар	Max Attention - Capex	\$ -	\$ 1,268,225	\$ 1,268,225	\$ -	\$ -	\$ -	\$ 430,553	\$ 498,020	339,652		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33	,	Ор	SAP Implementation Services Opex	\$ -	\$ 1,217,957	\$ 1,217,957	\$ -	\$ -	\$ -	\$ 387,202	\$ 467,746	363,008		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34	Proj Proj	Cap	SAP Implementation Services Capex Internal Services - Non Incremental	\$ -	\$ 2,219,394	\$ 2,219,394 \$ (202.575)	\$ -	\$ -	\$ -	\$ 753,468 \$ (85,295)	\$ 871,534			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36	Proi	Сар	Services Contingency	\$ -	\$ 8.594.247	\$ 8,594,247		\$ -	\$ -		\$ 3.364.415			\$ -	s -	s -	\$ -	s -	s -	\$ -	s -	s -
37	Proj	Ор		\$ 115,844	\$ 6,549,422	\$ 6,665,266	\$ -	\$ -	\$ 115,844	\$ 1,521,211	\$ 1,844,700	2,548,478	\$ 181,438	\$ 181,438	\$ 181,438	\$ 90,719	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
				\$ 695,065	\$ 90,659,441	\$ 91,354,506	\$ -	\$ -	\$ 695,065		\$ 31,169,397		\$ 1,088,628	\$ 1,088,628	\$ 1,088,628	\$ 544,314	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Cap	Total Cap Ex % Total Op Ex %	\$ 695,065	\$ 51,362,909 \$ 39,296,532	\$ 51,362,909 \$ 39,991.597	ş -	\$ -	\$ 695.065	\$ 17,307,193	\$ 20,101,198	5 13,954,518	\$ 1.088.628	\$ 1.088.628	\$ - \$ 1.088.628	\$ - \$ 544314	\$ -	ş -	\$ -	\$ -	\$ - \$ -	\$ -
			1				,	*	,	4 3,22.,230		,,,	7 2,000,020	¥ 2,000,020	-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		*				*	.*
							Mana d	V2	V 2	W 4	Y5	W	V7	V0	W0	V40	V44	V42	V42	V44	V45	V45
ŀ	Proj/	CapEx/	System Asset Costs				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
l		OpEx	Cost Element	Total Years 1-3	Total Years 4-13		FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33
		Сар	Database (HANA)	\$ -	\$ 284,441	\$ 284,441	\$ -	\$ -	\$ -	\$ 284,441	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
39	System	Сар	Software Licenses (SAP+ Basis) TOTAL	\$ - \$ -	\$ 1,672,578 \$ 1,957,020	\$ 1,672,578 \$ 1,957,020	\$ -	\$ -	\$ -	\$ 1,672,578 \$ 1,957,020	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	s -
		Сар	Total Cap Ex %	\$ -	\$ 1,957,020	\$ 1,957,020		\$ -	\$ -	\$ 1,957,020			\$ -	\$ -	\$ -	\$ -	\$ -	\$	\$ -	\$	\$ -	\$ -
		Ор	Total Op Ex %	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	5 -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ſ			Pre-Production Services				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
	Proj/O&N		Cost Element	Total Years 1-3	Total Years 4-13	Program Total	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33
	Svcs	Op	PaaS Subscription (License + Host)	\$ -	\$ 335,403	\$ 335,403	\$ -	\$ -	\$ -	\$ 125,132	\$ 125,132	85,138	\$ -	\$ -	\$ -	\$ -	\$ -	s -	\$ -	\$ -	\$ -	\$ -
	Svcs Svcs	Op Op	Application Maintenance Application Management Services Opex (SAP)	\$ -	\$ 1,057,015 \$ 278,028	\$ 1,057,015 \$ 278,028	s -	\$ -	s -	\$ 422,806 \$ 85,547	\$ 422,806 \$ 85,547		s -	s -	s -	\$ -	\$ -	s -	\$ -	\$ -	s -	s -
	Svcs	Op	SAP PI/PO Infrastructure	\$ -	\$ 13,333	\$ 13,333	ş -	\$ -	\$ -	\$ -	\$ 13,333	-	\$ -	\$ -	\$ -	\$ -	\$ -	ş -	\$ -	\$ -	\$ -	\$ -
44	Svcs	Ор	Mulesoft Oracle Fusion	\$ -	\$ 222,220	\$ 222,220	\$ -	\$ -	\$ -	\$ 88,888	\$ 88,888	44,444		\$ -	s -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Сар	TOTAL Total Cap Ex %	\$ -	\$ 1,905,999	\$ 1,905,999		\$ - \$ -	\$ -	\$ 722,373	\$ 735,706	\$ 447,919		\$ - \$ -	\$ -	\$ - \$ -	\$ -	s -	\$ -	\$ -	\$ - \$ -	\$ - \$ -
		Ор	Total Op Ex %	\$ -	\$ 1,905,999	\$ 1,905,999	\$ -		\$ -	\$ 722,373	\$ 735,706	447,919				\$ -				\$ -		\$ -
			Total Costs				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
		CapEx/	Cost Element	Total Years 1-3	Total Years 4-13	Program Total	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33
45		OpEx		\$ 764,436		\$ 54,084,365	20											2				
45 46		Cap	Total Cap Ex % Total Op Ex %	\$ 764,436	\$ 53,319,929 \$ 43.800.956	\$ 54,084,365	\$ 490.085	\$ 400.160			\$ 20,101,198 \$ 12,848,184			\$ 1.141.961	S 1.141.961	\$ 597.647	\$ -	s -	\$ -	s -	s -	s -
47			Total Costs	\$ 2,788,595	\$ 97,120,885	\$ 99,909,480		\$ 400,160	\$ 1,898,351	\$ 29,790,402	\$ 32,949,382	30,357,570	\$ 1,141,961	\$ 1,141,961			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48			Cummulative Capital	\$ -			ş -	\$ -	\$ 764,436	\$ 20,028,649	\$ 40,129,847	5 54,084,365										
49 50			AFUDC Total Costs	35,451	5,087,089	5,122,539 \$ 105.032.019		\$ -			\$ 2,423,478			\$ 1141.054	\$ 1.141.961	\$ 597.647	•	¢	¢	¢	•	•
50			rotal costs	ə 2,824,046	\$ 102,207,973	3 105,032,019	3 490,085	\$ 400,160	o 1,955,602	\$ 30,/19,443	3 33,372,800	32,092,139	3 1,141,961	3 1,141,961	\$ 1,141,961	3 597,647	, .	,			, .	, .

Total CIS Cost KEDLI

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-872 Page 2 of 3

			Pre-Project Costs - Non-Labor					Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
Row#	Proj/ O&M	CapEx/ OpEx	Cost Element	Total Y	ears 1-3	Total Years 4-13	Program Total	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33
1	Pre	Op	Pre-CIS - (Phases 1 & 2)	\$	227,422	\$ -	\$ 227,422	\$ 227,422	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	Pre	Op	RFP & Pre-Project Activities Costs - (Phase 3)	\$	305,312	\$ -	\$ 305,312	\$ -	\$ 173,318	\$ 131,994	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3	Pre	Cap	RFP & Pre-Project Activities Costs - (Phase 3)	\$	82,496	\$ -	\$ 82,496	\$ -	\$ -	\$ 82,496	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	Pre	Op	External Contract Review Legal Costs	\$	24,749	\$ -	\$ 24,749	\$ -	\$ 12,374	\$ 12,374	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5	Pre	Cap	Data Cleanse	\$:	272,238	\$ -	\$ 272,238	\$ -	\$ -	\$ 272,238	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
			TOTAL	\$!	912,218	\$ -	\$ 912,218	\$ 227,422	\$ 185,693	\$ 499,103	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Cap	Total Cap Ex %	\$	354,734	\$ -	\$ 354,734	\$ -	\$ -	\$ 354,734	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Op	Total Op Ex %	\$	557,484	\$ -	\$ 557,484	\$ 227,422	\$ 185,693	\$ 144,369	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

			Project Costs - Non-Labor				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
	Proj/ O&M	CapEx/ OpEx	Cost Element	Total Years 1-3	Total Years 4-13	Program Total	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33
6 Pr	oj	Ор	Facilities - Physical space for project (Core)	\$ 4,542	\$ 36,353	\$ 40,895	\$ -	\$ -	\$ 4,542	\$ 11,354	\$ 13,625	\$ 11,375	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7 Pr	oj:	Op	Facilities - Physical space for project (Unique)	\$ 9,572	\$ 79,188	\$ 88,760	\$ -	\$ -	\$ 9,572	\$ 23,931	\$ 28,717	\$ 26,540	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8 Pr	oj	Op	Network & Desktop (Core)	\$ 11,354	\$ 109,789	\$ 121,143	\$ -	\$ -	\$ 11,354	\$ 34,062	\$ 45,416	\$ 30,312	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9 Pr	oj:	Op	Network & Desktop (Unique)	\$ 23,931	\$ 235,680	\$ 259,611	\$ -	\$ -	\$ 23,931	\$ 71,793	\$ 95,723	\$ 68,164	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10 Pr	oj	Op	Project Incidental Costs - Communications / Printing e	\$ -	\$ 144,369	\$ 144,369	\$ -	\$ -	\$ -	\$ 20,624	\$ 20,624	\$ 20,624	\$ 20,624	\$ 20,624	\$ 20,624	\$ 20,624	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11 Pr	oj:	Op	Third Party External Svcs (Fiserve, WU etc)	\$ -	\$ 399,447	\$ 399,447	\$ -	\$ -	\$ -	\$ 99,862	\$ 199,724	\$ 99,862	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12 Pr	oj	Op	Project Contingency	\$ 9,880	\$ 200,965	\$ 210,845	\$ -	\$ -	\$ 9,880	\$ 52,325	\$ 80,766	\$ 51,375	\$ 4,125	\$ 4,125	\$ 4,125	\$ 4,125	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
			TOTAL	\$ 59,278	\$ 1,205,791	\$ 1,265,069	\$ -	\$ -	\$ 59,278	\$ 313,950	\$ 484,594	\$ 308,251	\$ 24,749	\$ 24,749	\$ 24,749	\$ 24,749	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Cap	Total Cap Ex %	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Op	Total Op Ex %	\$ 59,278	\$ 1,205,791	\$ 1,265,069	\$ -	\$ -	\$ 59,278	\$ 313,950	\$ 484,594	\$ 308,251	\$ 24,749	\$ 24,749	\$ 24,749	\$ 24,749	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

	Projec	t Costs - Labor (Inc SI & NG Resources)				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
Proj/ O&M	CapEx/ OpEx	Cost Element	Total Years 1-3	Total Years 4-13	Program Total	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33
Proj	Op	Org Stand Up	\$ 247,489	\$ -	\$ 247,489	\$ -	\$ -	\$ 247,489	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Op	Trainers	\$ 21,296	\$ 181,020	\$ 202,316	\$ -	\$ -	\$ 21,296	\$ 63,889	\$ 85,186	\$ 31,945	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj		Controls - Reg compliance, SOX, etc	\$ -	\$ 130,441	\$ 130,441	\$ -	\$ -	\$ -	\$ 42,593	\$ 63,889	\$ 23,959		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Op	Staff Aug - Project (Storm)	\$ -	\$ 1,118,063	\$ 1,118,063	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,118,063	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Op	Staff Aug - RTB stabilization (Bubble)	\$ -	\$ 1,211,235	\$ 1,211,235	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,211,235	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Op	Decommission old CIS systems	\$ -	\$ 1,683,915	\$ 1,683,915	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 210,489	\$ 420,979	\$ 420,979	\$ 420,979	\$ 210,489	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Сар	External Services - Core	\$ -	\$ 4,763,663	\$ 4,763,663	\$ -	\$ -	\$ -	\$ 1,741,569	\$ 1,905,822	\$ 1,116,272	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Cap	External Services - Unique	\$ -	\$ 10,229,059	\$ 10,229,059	\$ -	\$ -	\$ -	\$ 3,670,722	\$ 4,016,920	\$ 2,541,417	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Op	External Services - Core	\$ -	\$ 1,587,888	\$ 1,587,888	\$ -	\$ -	\$ -	\$ 580,523	\$ 635,274	\$ 372,091		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Op	External Services - Unique	\$ -	\$ 3,409,686	\$ 3,409,686	\$ -	\$ -	\$ -	\$ 1,223,574	\$ 1,338,973	\$ 847,139	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Cap	Internal Services - Contracted - Core	\$ -	\$ 561,582	\$ 561,582	\$ -	\$ -	\$ -	\$ 148,641	\$ 224,954	\$ 187,987	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Cap	Internal Services - Contracted - Unique	\$ -	\$ 1,226,054	\$ 1,226,054	\$ -	\$ -	\$ -	\$ 313,292	\$ 474,138	\$ 438,624	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Op	Internal Services - Contracted - Core	\$ -	\$ 1,098,982	\$ 1,098,982	\$ -	\$ -	\$ -	\$ 267,781	\$ 426,084	\$ 405,116	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Op	Internal Services - Contracted - Unique	\$ -	\$ 2,432,709	\$ 2,432,709	\$ -	\$ -	\$ -	\$ 564,405	\$ 898,062	\$ 970,241	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Cap	Internal Services - Core	\$ -	\$ 444,131	\$ 444,131	\$ -	\$ -	\$ -	\$ 83,507	\$ 156,054	\$ 204,570		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Cap	Internal Services - Unique	\$ -	\$ 967,317	\$ 967,317	\$ -	\$ -	\$ -	\$ 176,009	\$ 328,916	\$ 462,392	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Op	Internal Services - Core	\$ -	\$ 497,975	\$ 497,975	\$ -	\$ -	\$ -	\$ 176,026	\$ 178,738	\$ 143,210		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Op	Internal Services - Unique	\$ -	\$ 1,086,564	\$ 1,086,564	\$ -	\$ -	\$ -	\$ 371,012	\$ 376,729	\$ 338,823	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Op	Max Attention - Opex	\$ -	\$ 322,965	\$ 322,965	\$ -	\$ -	\$ -	\$ 102,674	\$ 124,032	\$ 96,259	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Cap	Max Attention - Capex	\$ -	\$ 588,516	\$ 588,516	\$ -	\$ -	\$ -	\$ 199,797	\$ 231,104	\$ 157,615	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Op	SAP Implementation Services Opex	\$ -	\$ 565,189	\$ 565,189	\$ -	\$ -	\$ -	\$ 179,680	\$ 217,056	\$ 168,453	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Cap	SAP Implementation Services Capex	\$ -	\$ 1,029,903	\$ 1,029,903	\$ -	\$ -	\$ -	\$ 349,644	\$ 404,433	\$ 275,826	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Cap	Internal Services - Non Incremental	\$ -	\$ (94,004)	\$ (94,004)	\$ -	\$ -	\$ -	\$ (39,581)	\$ (39,581)	\$ (14,843)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj	Cap	Services Contingency	\$ -	\$ 3,988,133	\$ 3,988,133	\$ -	\$ -	\$ -	\$ 1,345,155		\$ 1,081,732		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proj		Services Contingency	\$ 53,757		\$ 3,092,995	\$ -	\$ -	\$ 53,757	\$ 705,913		\$ 1,182,613		\$ 84,196	\$ 84,196	\$ 42,098	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		TOTAL	\$ 322,542	\$ 42,070,223	\$ 42,392,766	\$ -	\$ -	\$ 322,542	\$ 12,266,827	\$ 14,464,059	\$ 13,571,227	\$ 505,174	\$ 505,174	\$ 505,174	\$ 252,587	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Cap	Total Cap Ex %	\$ -	\$ 23,834,793	\$ 23,834,793	\$ -	\$ -	\$ -	\$ 8,031,348	\$ 9,327,897	\$ 6,475,549	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Op	Total Op Ex %	\$ 322,542	\$ 18,235,430	\$ 18,557,972	\$ -	\$ -	\$ 322,542	\$ 4,235,479	\$ 5,136,162	\$ 7,095,678	\$ 505,174	\$ 505,174	\$ 505,174	\$ 252,587	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

			System Asset Costs					Ye	ear 1	Year 2	Year 3	Year 4	Year 5	Year	5	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
Pro O&		pEx/ DpEx	Cost Element	Total Years 1-3	Total	al Years 4-13	Program Tot	il F	Y 18	FY 19	FY 20	FY 21	FY 22	FY 2	_	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33
38 System	Cap	p I	Database (HANA)	\$ -	\$	131,994	\$ 131,99	4 \$	-	\$ -	\$ -	\$ 131,994	\$ -	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
39 System	Cap	р 9	Software Licenses (SAP+ Basis)	\$ -	\$	776,155	\$ 776,15	5 \$	-	\$ -	\$ -	\$ 776,155	\$ -	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		1	TOTAL	\$ -	\$	908,149	\$ 908,14	9 \$	-	\$ -	\$ -	\$ 908,149	\$ -	\$		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Cap	р 1	Total Cap Ex %	\$ -	\$	908,149	\$ 908,14	9 \$	-	\$ -	\$ -	\$ 908,149	\$ -	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Op		Total Op Ex %	\$ -	\$	-	\$ -	\$	-	\$ -	\$ -	\$	\$ -	\$		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

I			Pre-Production Services							Year	1	Year 2	Ye	ear 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year	10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
ı	Proj/O&M	Cap/Op	Cost Element	Total	Years 1-3	Tota	al Years 4-13	Program '	Total	FY 1	18	FY 19	F۱	Y 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY:	27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33
40	ivcs	Op	PaaS Subscription (License + Host)	\$		\$	155,643	\$ 155	,643	\$	-	\$ -	\$	-	\$ 58,067	\$ 58,067	\$ 39,508	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
41	ivcs	Op	Application Maintenance	\$	-	\$	490,504	\$ 490	,504	\$	-	\$ -	\$	-	\$ 196,202	\$ 196,202	\$ 98,101	\$ -	\$ -	\$ -	\$		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
42	vcs	Op	Application Management Services Opex (SAP)	\$		\$	129,018	\$ 129	,018	\$	-	\$ -	\$	-	\$ 39,698	\$ 39,698	\$ 49,622	\$ -	\$ -	\$ -	\$		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
43	ivcs	Op	SAP PI/PO Infrastructure	\$	-	\$	6,187	\$ 6	,187	\$	-	\$ -	\$	-	\$ -	\$ 6,187	\$	\$ -	\$ -	\$ -	\$		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
44	ivcs	Op	Mulesoft Oracle Fusion	\$	-	\$	103,120	\$ 103	,120	\$	-	\$ -	\$	-	\$ 41,248	\$ 41,248	\$ 20,624	\$ -	\$ -	\$ -	\$		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
•			TOTAL	\$	-	\$	884,473	\$ 884	,473	\$	-	\$ -	\$	-	\$ 335,215	\$ 341,402	\$ 207,855	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Cap	Total Cap Ex %	\$		\$		\$		\$	-	\$ -	\$	-	\$ -	\$ -	\$	\$ -	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

KeySpan Gas East Corporation
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d/b/a National Grid
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Total CIS Cost KEDLI

Op	Total Op Ex %	\$,	\$ 884,473	\$ 8	884,473	\$ -	\$ -	\$ -	\$ 335,215	\$ 341,402 \$	207,855	\$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	•																				

	Total Costs				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
CapEx/ OpEx	Cost Element	Total Years 1-3	Total Years 4-13	Program Total	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33
Cap	Total Cap Ex %	\$ 354,734	\$ 24,742,942	\$ 25,097,676	\$ -	\$ -	\$ 354,734	\$ 8,939,496	\$ 9,327,897	\$ 6,475,549	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Op	Total Op Ex %	\$ 939,305	\$ 20,325,693	\$ 21,264,998	\$ 227,422	\$ 185,693	\$ 526,190	\$ 4,884,644	\$ 5,962,159	\$ 7,611,784	\$ 529,923	\$ 529,923	\$ 529,923	\$ 277,336	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total Costs	\$ 1,294,039	\$ 45,068,635	\$ 46,362,674	\$ 227,422	\$ 185,693	\$ 880,924	\$ 13,824,141	\$ 15,290,055	\$ 14,087,333	\$ 529,923	\$ 529,923	\$ 529,923	\$ 277,336	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Cummulative Capital	\$ -			\$ -	\$ -	\$ 354,734	\$ 9,294,230	\$ 18,622,127	\$ 25,097,676										
	AFUDC	16,451	2,360,647	2,377,098	\$ -	\$ -	\$ 16,451	\$ 431,118	\$ 1,124,607	\$ 804,921										
	Total Costs	\$ 1.310.490	\$ 47,429,282	\$ 48,739,772	\$ 227,422	\$ 185,693	\$ 897,374	\$ 14,255,259	\$ 16,414,662	\$ 14.892.254	\$ 529,923	\$ 529.923	\$ 529,923	\$ 277.336	\$ -	S -	S -	\$ -	\$ -	\$ -

Date of Request: July 24, 2019 Request No. DPS-934
Due Date: August 5, 2019 NG Request No. NG-1250

KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

FROM: DPS Staff, Magen Bauer

TO: National Grid, Shared Services Panel

SUBJECT: Call Load Balancing

Request:

Note: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

Provide a detailed description of the Companies' call load balancing initiative. Include relevant timelines, performance measures, reports, and any other materials that pertain to the subject. Indicate if this initiative has been implemented at National Grid's other New York Companies.

Response:

National Grid is implementing an initiative that would enable the Companies to shift call volume in real time between internal centers and the third-party vendor at times of peak capacity, thereby reducing customer hold times and improving the customer experience. The Commission authorized load balancing in the last rate proceedings, Cases 16-G-0058 and 16-G-0059, noting that to enhance customer service, KEDNY and KEDLI would be permitted to transfer calls among National Grid's New York State call centers (KEDNY, KEDLI, and NMPC) and in state third-party vendors. This is dependent upon having compatible technologies at each location that would provide call load balancing, which has yet to be completed. Until such time, the Companies and third-party vendors will continue to forecast call allocations and volume monthly and make adjustments on a daily basis. Full load balancing capability is targeted for Q4 in FY2020.

Name of Respondent:

Dan Tripp

Date of Reply: July 31, 2019

Date of Request: August 1, 2019 Due

Request No. DPS-965 Date: August 12, 2019 NG Request No. NG-1283

KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

FROM: DPS Staff, Magen Bauer

TO: National Grid, Shared Services Panel

SUBJECT: Residential Customer Arrears

Request:

Note: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

- 1. For each of the last three rate years, provide a breakdown of residential customers in arrears, indicating the number of customers in each of the following categories:
 - a. Arrears of \$500 or less;
 - b. Arrears between \$501 and \$999;
 - c. Arrears between \$1,000 and \$1,999;
 - d. Arrears between \$2,000 and \$4,999;
 - e. Arrears between \$5,000 and \$9,999; and
 - f. Arrears greater than \$10,000.
- Provide the amount of time allowed to lapse and/or the approximate timeframe before a 2. customer's arrears are written off as uncollectible expense and provide the written policies and procedures that govern this time frame.
- 3. Does the Company report residential customers with closed accounts, late payments, and/or bad debt to credit reporting agencies? If so, provide a timeline of when such reporting occurs.

Response:

1. Attachment 1 (KEDLI) and Attachment 2 (KEDNY) provide a breakdown of residential customers in arrears for the last three rate years. Please note, the data provides a view of active and final accounts on December 31, 2016, December 31, 2017, and December 31, 2018.

2. For KEDLI, the approximate time frame for an account to be written off is 90 days after a final bill is rendered. This process is automated and occurs within the customer service system ("CSS"). There are certain circumstances where an account can be closed and manually written off. For instance, if a customer files for bankruptcy, the write-off can be forced manually (as shown in the Bankruptcy Write-off CSS process document shown in Attachment 3) and charged off during the same month the account is closed. Additionally, on an exception basis, accounts can be closed and written off manually.

For KEDNY, the approximate timeframe for an account to be written off is 90 to 120 days after a final bill is rendered (see example below). This process is automated and occurs at the month-end accounting close within the customer relationship information system ("CRIS"). Bankruptcy accounts are automatically charged off during the same month that the account is closed. Additionally, on an exception basis, accounts can be closed and written-off manually.

For example, if a final bill is issued on January 10, the balance would write off at April month-end after 110 days as shown in the table below:

Month	Days	Final bill date	Count (days)
January	31	January 10	21
February	28		49
March	31		80
April	30		110

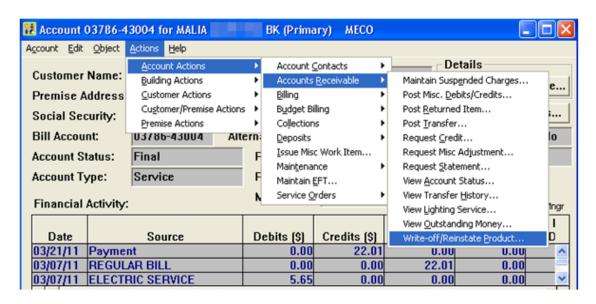
The time frames that govern the write-off process have been historically coded in both customer systems, thereby automating the timing when write-off occurs. Beyond the process document provided in Attachment 3, there are no further written policy or procedure documents related to the time frame.

3. The Companies do not report active customers' accounts to credit reporting agencies. However, the Companies' collection agencies may report to credit reporting agencies under certain circumstances on inactive accounts. The Companies collect on closed accounts using collection agencies referred to as primary, secondary, tertiary, and trigger agencies. The collection agencies used by KEDLI report to credit reporting agencies after mailing a credit bureau warning letter at least 30 days in advance. KEDNY accounts are not credit reported by its primary collection agency as they are referred for 60 days or less. The secondary and subsequent agencies used by KEDNY may report to credit reporting agencies after mailing the warning letter at least 30 days in advance.

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 3 to DPS-965 Page 1 of 1

CSS Bankruptcy – Write-off Write-Off Pre-Petition Account

The pre-petition account should now be in an "Account Status of Final" and the money can now be written off. To write-off an account, follow the menu path: Actions → Account Receivable/Write-Off Reinstate Product:



Select "Write Off", "Whole Account" and enter the account balance in the Amount field.



Complete "Customer Contact" (i.e., "Wrote off account balance of \$_____ on prepetition BK account") and process out.

Note: The radio button automatically defaults to "Write Off."

KeySpan Gas East Corporation d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-935 Page 1 of 1

Year	Arrears Amount <=\$500	Arrears Amount \$501 - \$999	Arrears Amount \$1,000 - \$1,999	Arrears Amount \$2,000 - \$4,999	Arrears Amount \$5,000 - \$9,999	Arrears Amount >= \$10,000
2016	76,680	3,545	2,498	1,742	423	194
2017	78,791	3,588	2,327	1,580	389	150
2018	85,386	4,714	2,681	1,581	440	131

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Year	Arrears Amount <=\$500	Arrears Amount \$501 -	Arrears Amount \$1,000	-Arrears Amount \$2,000	-Arrears Amount \$5,000 -	Arrears Amount >=
Teal	Arrears Amount <-3500	\$999	\$1,999	\$4,999	\$9,999	\$10,000
2016	1,889,104	102,875	62,817	37,767	8,455	2,410
2017	1,957,242	106,569	64,177	38,524	8,664	2,496
2018	1,925,355	111,053	67,337	39,923	8,950	2,588

Date of Request: August 1, 2019 Due

Request No. DPS-966 Date: August 12, 2019 NG Request No. NG-1284

KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

DPS Staff, Chelsea Kruger and Magen Bauer FROM:

TO: National Grid, Information Technology Panel

SUBJECT: CIS Replacement — Updated Timeline

Request:

Note: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

In the Corrections and Updates Testimony of the Information Technology Panel, the Panel states that the initial in-service date of the CIS Replacement for both Companies has been updated from April 1, 2022, to October 1, 2022. If this delay impacts the projected time the legacy systems will be retired, provide a detailed description of the new target date(s), cost changes associated with keeping the legacy systems active longer than projected, changes in staffing, and any other factors that may be affected by the delay.

Response:

As discussed in the Companies' Shared Services Panel Corrections and Updates testimony, the start date for the CIS replacement project has been extended from September 2019 to April 2020. This extension to the start date will impact the retirement dates for the legacy CSS (serving KEDLI and Niagara Mohawk) and CRIS (serving KEDNY). The new planned in-service dates for these three New York companies are as follows:

- KEDNY October, 2022 (Release 1 which will retire the CRIS system)
- KEDLI October, 2022 (Release 1 the CSS system remains active for other companies including Niagara Mohawk)
- Niagara Mohawk November, 2026 (which will retire the CSS system)

Current operational costs associated with the legacy CIS systems are forecast to continue for an additional 6 months with this extension. Once the new CIS system is in operation for all companies and the legacy CSS and CRIS systems are retired, there is expected to be a total reduction in operation costs of \$5.3 million per year. Please see "Section 9 Financials" of the

CIS Business Case in Exhibit __(SSP-5CU) for a detailed view of the anticipated effect on system operations expense for both KEDNY and KEDLI.

It is estimated that the 6 month delay will result in the following operational benefits not being realized for each of the following Operating companies:

KEDNY - \$0.472 million KEDLI - \$0.219 million NMPC Electric - \$0.618 million NMPC Gas - \$0.230 million.

The project staffing model is still being analyzed in System Integrator scoping exercises and will be adjusted to the new planned start date. The change in start date is not expected to affect the overall staff required to carry out project activities.

Name of Respondent: Jeff Martin Date of Reply: August 9, 2019

Date of Request: August 2, 2019 Due

Request No. DPS-974 Date: August 12, 2019 NG Request No. NG-1302

KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

FROM: DPS Staff, Chelsea Kruger and Magen Bauer

TO: National Grid, Shared Services Panel

SUBJECT: CIS Replacement – CSS Consolidation

Request:

Note: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

The following questions pertain to the move to consolidate National Grid the multiple CIS systems into CSS.

- 1. Provide the total cost of this project from its inception in 2007 to its formal cancellation in 2016.
- 2. Provide the total cost of this project allocated to KEDNY from its inception in 2007 to its formal cancellation in 2016.
- 3. Provide the total cost of this project allocated to KEDLI from its inception in 2007 to its formal cancellation in 2016.
- For the costs of question 2 and 3, above, provide a detailed explanation how and when 4. these costs were recovered.

Response:

1. The New England Electric System CIS Customer Billing System was the first customer system to be converted onto the existing Customer 1/CSS application ("CSS") in January 2008 at a total cost of \$39.6 million (\$36.1 million Capex/\$3.5 million OPEX). These costs were allocated to customers of the New England Electric System operating companies of National Grid and have been fully amortized.

The Narragansett Gas Banner Customer System and LDCM Gas Transportation system billing functionality were converted onto the CSS system platform in January 2012 at a total cost of \$15.2 million (\$14.7 million Capex/\$0.5 million OPEX). The cost of this customer system conversion was allocated solely to customers of Narragansett Gas.

Please see Attachment 1, which is the sanction closure paper for IT Project INVP 2587 – RI Gas Migration to CSS.

The KEDLI Customer Migration Project migrated customers' data from the CAS application and other interfaced legacy applications to CSS in December 2013 at a total cost of \$28.4 million (\$27.6 million Capex/\$0.8 million OPEX). The cost of this system conversion was allocated solely to customers of KEDLI and commenced when the project went into service in December 2013. Please see Attachment 2, which is the sanction closure paper for IT Project INVP 2582 – KEDLI Gas Customer Migration.

IT Project INVP 2583 - CRIS Migration was intended to migrate customers in the New York City and Massachusetts Gas territories from CRIS to the target customer platform, CSS. National Grid cancelled the project in April 2015. Some design and implementation activities had already begun at the time of cancellation. National Grid completed the requirements and design phase of this project in February 2015 as scheduled and work began on the development and implementation phase of the project. However, on completion of the requirements and design phase, National Grid began a review to validate the approach, timing and strategic priorities of this initiative and others in the customer space. The review recommended pursuing other strategic priorities, including specifically, acquisition of a new customer system for KEDNY, rather than continue toward completion of the conversion project. Some portions of the project continued and were implemented as a separate smaller project, INVP 4172 - Cross Company Enhancements. Associated costs of the continued elements were transferred to that project and aligned to the associated operating companies. Recovery of the Cross Company Enhancement investments commenced when they went into service.

Please refer to Attachment 3 for a summary of the CRIS Conversion costs that were cancelled and written off. These costs were not included in the cost of service of either KEDNY or KEDLI. Please refer to Attachment 4 for a summary of the CRIS Conversion costs that were transferred to IT Project 4172 – Cross Company Enhancements and Attachment 5, which is the sanction closure paper for IT Project 4172 – Cross Company Enhancements. Attachment 6 provides the closure paper for the cancelled IT Project INVP 2583 - CRIS Migration; and Section 3.2 of that paper addresses why the project was cancelled. National Grid removed these costs from the revenue requirement in any related rate filings.

- 2. Please see the response to question 1, above.
- 3. Please see the response to question 1, above.
- 4. Please see the response to question 1, above.

Name of Respondent: Daniel J. DeMauro, Jr. Date of Reply: August 12, 2019

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-974 Page 1 of 5

USSC Closure Paper

national**grid**

Title:	RI Gas Migration to CSS	Sanction Paper #:	INVP 2587
Project #:	NGUS CAPEX - C37023 NGUS OPEX - X14085 KS CAPEX - K393CX	Sanction Type:	Closure
Operating Company:	48 – Narragansett Gas Company.	Date of Request:	12/12/2012
Author:	Mark Mirizio	Sponsor:	Rudy Wynter, SVP – Shared Services
Utility Service:	IS - Customer	Project Manager:	Mark Mirizio

1 Executive Summary

This paper is presented to close INVP 2587 RI Gas Migration to CSS. The total spend was \$15,166K USD. The sanctioned amount for this project was \$14,607K USD from March 2011.

All capital spend occurred and was therefore booked in FY11 and FY12. Vendor invoice credits against FY12 accrued charges resulted in a small capital credit in FY13.

The final spend amount of \$15,166K is broken down into:

\$14,653K Capex

\$ 513K Opex

This project covered the migration of the RI Gas Banner Customer System and LDCM Gas Transportation system billing functionality into the CSS (Customer Service System). This migration activity allowed Rhode Islands' 260k active customers to be handled seamlessly on one standard customer system, meter inventory system, work management platform (Mwork & STORMS), and other associated applications that interface with CSS. This project also included the design, build and implementation of the RI Gas TSA application as a Gas Transportation replacement system for LDCM. This project eliminated IS and business support of Banner, Business Choice, LDCM and PCAD and contributed to ongoing savings in each area.

Project work began in July 2010 with the definition of business requirements which were completed in October 2010. Technical design of the identified system changes occurred from October 2010 through March 2011. IBM was brought in to provide data conversion related services in December 2010 and their work on data mapping activities was also completed in March 2011. Coding of program changes to CSS began in February 2011 and concluded in June 2011. The first cut of converted data was delivered from IBM in late May. Product and regression testing began in early June but issues with the status and integrity of converted data hindered testing progress from the

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-974 Page 2 of 5

nationalgrid

USSC Closure Paper

onset. Overall testing included; product testing, life cycle testing, interface integration testing, regression testing (of existing legacy CSS functionality) and implementation (cut-over) testing. Testing needed to be extended into January to achieve pre-defined project acceptance criteria. The actual conversion (cut-over) of Banner information occurred over the January 20, 2012 weekend. The new RI Gas TSA application went live on February 1st with Gas Marketers accessing the new system through the EBB (Electronic Bulletin Board) portal. RI Gas Marketer bills for the month of February were produced from CSS in mid March. The post implementation support team was kept in place until February 28, 2012 with the exception of post implementation support for the new RI Gas TSA application which was partially supported until March 30, 2012.

2 OVER / UNDER EXPENDITURE ANALYSIS

Description	Cost	Reasoning
Excessive Capital Labor Overhead Charges	215.2K	As determined by the Plant Accounting group, the Capital OH/Burden rate was budgeted at 184% of internal National Grid labor. For the final five months of this project (Oct '11 – Feb '12) that rate was adjusted to 224%. This adjustment (which affected all capital projects) was necessary to balance out accumulated FY12 overhead charges incurred on capital project work.
Contract sourcing change of retiree contractors from Pro-Unlimited to Zero Chaos (IBM)	129.1K	In order to maintain the continuity of experienced project resources, it was required to move retiree contractor resources from Pro-Unlimited to Zero Chaos (IBM) in July 2011. This resulted in an18.25% increase in retiree contractor hourly bill rates.
Labor charges from Processing & Systems Department	81.8K	Labor cost increase due to appropriate allocation of time worked on the project from the Processing & Systems department resources that were not budgeted.
Overhead costs from Solution Delivery partners	52.1K	Overhead costs from the Solution Delivery partners (IBM and Wipro) were underestimated in the original budget.
Statement of Work extension with IBM	150K	Additional testing to meet acceptance criteria required additional resources and time from IBM to provide data conversion related services through January go-live.
Total	628.2K	

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 1 to DPS-974 Page 3 of 5

nationalgrid

USSC Closure Paper

				Ac	tual Spend	ing					
Project #	Project	Project	\$M		•	•					
•	·	•		FY10/11	FY11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	Total
Project #	Description		Capex	4.342	10.426	(0.115)					14.653
C37023			Opex	0.025	0.397	0.091					0.513
			Removal								0.000
			Total	4.367	10.823	(0.024)	0.000	0.000	0.000	0.000	15.166
Project #	Description										
			Capex								0.0
			Орех								0.0
			Removal								0.0
			Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total					12.15-	(0.115)			2.225	1	1
			Capex	4.342	10.426	(0.115)	0.000	0.000	0.000	0.000	14.653
			Opex	0.025	0.397	0.091	0.000	0.000	0.000	0.000	0.513
			Removal	0.000 4.367	0.000 10.823	0.000 (0.024)	0.000	0.000	0.000	0.000	0.000 15.166
			Total	4.367	10.823	(0.024)	0.000	0.000	0.000	0.000	15.166
				4.307	10.023	(0.024)	0.000	0.000	0.000	0.000	13.100
T . 4 .	10		45 400								
I Ota	I Project Spe	naing =	15.166	IVI							
Project	Costs per Bu	Ca	nex pex	8.000 0.000	6.000 0.250	FY 12/13	0.000	FY 14/15 0.000	FY 15/16 0.000	FY 16/17	Total 14.000
			ex	0.000				0.000	0.000	0.000	
			noval	0.000		0.000	0.000	0.000	0.000	0.000	0.250
		Ren	noval	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
			noval et in B Plan	0.000 8.000					0.000		0.250
Project	Budget Sum	Total Cos	et in B Plan	8.000 FY10/11	0.000 6.250 FY11/12	0.000 0.000 FY 12/13	0.000 0.000 FY 13/14	0.000	0.000	0.000	0.250
Project		Total Cos	et in B Plan	8.000 FY10/11 t Costs	0.000 6.250 FY11/12 (if different	0.000 0.000 FY 12/13 ent from	0.000 0.000 FY 13/14 Plan)	0.000 0.000 FY 14/15	0.000 0.000 FY 15/16	0.000 0.000 FY 16/17	0.250 0.000 14.250
Project		Total Cos mary Table sly Sanction Ca	et in B Plan ned Project pex	8.000 FY10/11 t Costs 4.523	0.000 6.250 FY11/12 (if difference)	0.000 0.000 FY 12/13 ent from 0.000	0.000 0.000 FY 13/14 Plan) 0.000	0.000 0.000 FY 14/15	0.000 0.000 FY 15/16	0.000 0.000 FY 16/17	0.250 0.000 14.250 Total
Project		Total Cos	ned Project	8.000 FY10/11 t Costs 4.523 0.040	6.250 FY11/12 (if differed 9.544 0.500	0.000 0.000 FY 12/13 ent from 0.000 0.000	0.000 0.000 FY 13/14 Plan) 0.000 0.000	0.000 0.000 FY 14/15 0.000 0.000	0.000 0.000 FY 15/16 0.000 0.000	0.000 0.000 FY 16/17 0.000 0.000	0.250 0.000 14.250 Total 14.067 0.540
Project		Total Cos	ned Project pex pex noval	8.000 FY10/11 t Costs 4.523 0.040 0.000	6.250 FY11/12 (if differding 9.544 0.500 0.000	0.000 0.000 FY 12/13 ent from 0.000 0.000 0.000	0.000 0.000 FY 13/14 Plan) 0.000 0.000 0.000	0.000 0.000 FY 14/15 0.000 0.000 0.000	0.000 0.000 FY 15/16 0.000 0.000 0.000	0.000 0.000 FY 16/17 0.000 0.000 0.000	0.250 0.000 14.250 Total 14.067 0.540 0.000
	Previous	Total Cos mary Table sly Sanction Ca O; Ren Total Cos	ned Project	8.000 FY10/11 t Costs 4.523 0.040 0.000 4.563	0.000 6.250 FY11/12 (if differond 0.500 0.000 10.044	0.000 0.000 FY 12/13 ent from 0.000 0.000 0.000 0.000	0.000 0.000 FY 13/14 Plan) 0.000 0.000 0.000 0.000	0.000 0.000 FY 14/15 0.000 0.000 0.000 0.000	0.000 0.000 FY 15/16 0.000 0.000 0.000 0.000	0.000 0.000 FY 16/17 0.000 0.000 0.000 0.000	0.250 0.000 14.250 Total 14.067 0.540 0.000 14.607
		Total Cos mary Table sly Sanction Ca O; Ren Total Cos	ned Project pex pex noval	8.000 FY10/11 t Costs 4.523 0.040 0.000	0.000 6.250 FY11/12 (if differd 9.544 0.500 0.000 10.044 FY11/12	0.000 0.000 FY 12/13 ent from 0.000 0.000 0.000	0.000 0.000 FY 13/14 Plan) 0.000 0.000 0.000	0.000 0.000 FY 14/15 0.000 0.000 0.000	0.000 0.000 FY 15/16 0.000 0.000 0.000	0.000 0.000 FY 16/17 0.000 0.000 0.000	0.250 0.000 14.250 Total 14.067 0.540 0.000
	Previous	Total Cos mary Table sly Sanction Ca Op Ren Total Cos Ce Ca	ned Project pex pex noval it in B Plan	8.000 FY10/11 t Costs 4.523 0.040 0.000 4.563 FY10/11 3.658	6.250 FY11/12 (if differond	0.000 FY 12/13 ent from 0.000 0.000 0.000 0.000 FY 12/13 0.115	0.000 0.000 FY 13/14 Plan) 0.000 0.000 0.000 0.000 FY 13/14 0.000	0.000 0.000 FY 14/15 0.000 0.000 0.000 0.000 FY 14/15 0.000	0.000 0.000 FY 15/16 0.000 0.000 0.000 0.000 FY 15/16 0.000	0.000 0.000 FY 16/17 0.000 0.000 0.000 0.000 FY 16/17 0.000	0.250 0.000 14.250 Total 14.067 0.540 0.000 14.607 Total (0.653)
	Previous	Total Cos mary Table sly Sanction Ca Or Ren Total Cos CCe Ca Or	ned Project pex pex noval at in B Plan	8.000 FY10/11 t Costs 4.523 0.040 0.000 4.563 FY10/11 3.668 (0.025)	0.000 6.250 FY11/12 (if differor 9.544 0.500 0.000 10.044 FY11/12 (4.426) (0.147)	0.000 FY 12/13 ent from 0.000 0.000 0.000 0.000 FY 12/13 0.115 (0.091)	0.000 FY 13/14 Plan) 0.000 0.000 0.000 0.000 FY 13/14 0.000 0.000	0.000 0.000 FY 14/15 0.000 0.000 0.000 0.000 FY 14/15 0.000 0.000	0.000 0.000 PY 15/16 0.000 0.000 0.000 0.000 PY 15/16 0.000 0.000	0.000 0.000 FY 16/17 0.000 0.000 0.000 0.000 FY 16/17 0.000 0.000	0.250 0.000 14.250 Total 14.067 0.540 0.000 14.607 Total (0.653) (0.263)
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Busines	Previous	Total Cos mary Table sly Sanction Ca O; Ren Total Cos Ce Ca O; Ren Ren Ren Ren Ren Ren Ren Ren Ren	ned Project pex pex pex poval pet in B Plan pex	8.000 FY10/11 t Costs 4.523 0.040 0.000 4.563 FY10/11 3.668 (0.025)	0.000 6.250 FY11/12 (if differor 9.544 0.500 0.000 10.044 FY11/12 (4.426) (0.147)	0.000 FY 12/13 ent from 0.000 0.000 0.000 0.000 FY 12/13 0.115 (0.091) 0.000 0.000	0.000 FY 13/14 Plan) 0.000 0.000 0.000 0.000 FY 13/14 0.000 0.000 0.000	0.000 0.000 FY 14/15 0.000 0.000 0.000 0.000 FY 14/15 0.000 0.000 0.000 0.000	0.000 0.000 FY 15/16 0.000 0.000 0.000 0.000 FY 15/16 0.000 0.000 0.000	0.000 0.000 FY 16/17 0.000 0.000 0.000 0.000 FY 16/17 0.000 0.000 0.000	0.250 0.000 14.250 Total 14.067 0.540 0.000 14.607 Total (0.653) (0.263)
Busines	Previous ss Plan Varian	Total Cos mary Table sly Sanction Ca Op Ren Total Cos CCe Ca Op Ren Total V	ned Project pex pex pex poval pet in B Plan pex pex pex pex pex	8.000 FY10/11 t Costs 4.523 0.040 0.000 4.563 FY10/11 3.668 (0.025) 0.000 3.633	0.000 6.250 FY11/12 (if differo 9.544 0.500 0.000 10.044 FY11/12 (4.426) (0.147) 0.000 (4.573)	0.000 FY 12/13 ent from 0.000 0.000 0.000 0.000 FY 12/13 0.115 (0.091) 0.000 0.000	0.000 FY 13/14 Plan) 0.000 0.000 0.000 0.000 FY 13/14 0.000 0.000 0.000 0.000 0.000	0.000 0.000 FY 14/15 0.000 0.000 0.000 0.000 FY 14/15 0.000 0.000 0.000 0.000	0.000 0.000 FY 15/16 0.000 0.000 0.000 FY 15/16 0.000 0.000 0.000 0.000 0.000	0.000 0.000 FY 16/17 0.000 0.000 0.000 0.000 FY 16/17 0.000 0.000 0.000 0.000	0.250 0.000 14.250 Total 14.067 0.540 0.000 14.607 Total (0.653) (0.263) 0.000 (0.916)
Busines	Previous ss Plan Varian	Total Cos mary Table sly Sanction Ca Op Ren Total Cos Ce Ca Op Ren Total Cos Ce Ca Cop Ca Cop Ca Cop Ca Cop Ca Ca Ca Ca Ca Ca Ca Ca Ca C	ned Project pex pex pex poval at in B Plan pex	8.000 FY10/11 t Costs 4.523 0.040 0.000 4.563 FY10/11 3.668 (0.025) 0.000 3.633 FY10/11	0.000 6.250 FY11/12 (if differo 9.544 0.500 0.000 10.044 FY11/12 (4.426) 0.000 (4.573) FY11/12	0.000 FY 12/13 ent from 0.000 0.000 0.000 0.000 FY 12/13 0.115 (0.091) 0.000 0.0024 FY 12/13X	0.000 FY 13/14 Plan) 0.000 0.000 0.000 0.000 FY 13/14 0.000 0.000 0.000 FY 13/14X	0.000 0.000 FY 14/15 0.000 0.000 0.000 0.000 FY 14/15 0.000 0.000 0.000 FY 14/15	0.000 0.000 PY 15/16 0.000 0.000 0.000 0.000 PY 15/16 0.000 0.000 0.000 PY 15/16	0.000 0.000 FY 16/17 0.000 0.000 0.000 0.000 FY 16/17 0.000 0.000 0.000 FY 16/17	0.250 0.000 14.250 Total 14.067 0.540 0.000 14.607 Total (0.653) (0.263) 0.000 (0.916) Total
Busines	Previous ss Plan Varian	Total Cos mary Table sly Sanction Ca O; Ren Total Cos Ce Ca O; Ren Total V	ned Project pex	8.000 FY10/11 t Costs 4.523 0.040 0.000 4.563 FY10/11 3.668 (0.025) 0.000 3.633 FY10/11 0.181	0.000 6.250 FY11/12 (if differor 9.544 0.500 0.000 10.044 FY11/12 (4.426) (0.147) 0.000 (4.573) FY11/12	0.000 FY 12/13 ent from 0.000 0.000 0.000 0.000 FY 12/13 0.115 (0.091) 0.0024 FY 12/13X 0.115	0.000 FY 13/14 Plan) 0.000 0.000 0.000 0.000 FY 13/14 0.000 0.000 FY 13/14X 0.000	0.000 0.000 FY 14/15 0.000 0.000 0.000 0.000 FY 14/15 0.000 0.000 0.000 FY 14/15 0.000 FY 14/15 0.000	0.000 0.000 FY 15/16 0.000 0.000 0.000 FY 15/16 0.000 0.000 0.000 FY 15/16 0.000 FY 15/16 0.000	0.000 0.000 FY 16/17 0.000 0.000 0.000 0.000 FY 16/17 0.000 0.000 FY 16/17 0.000 FY 16/17	0.250 0.000 14.250 Total 14.067 0.540 0.000 14.607 Total (0.653) (0.263) 0.000 (0.916) Total (0.586)

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USSC Closure Paper



3 <u>IMPROVEMENTS/LESSONS LEARNED</u>

- Early on delays with reaching an agreement with IBM to provide data conversion related services put data conversion on the critical path of the project. Delays were caused by time constraints from Procurement and Legal who were busy working on contracts and negotiations to support IS transformation. The time delays brought on by this item were not accounted for in the schedule.
- D&I (Development and Implementation) schedule was to aggressive and therefore unrealistic to expect that full fledged product testing could begin at the same time that converted data was first delivered. The integrity and consistency of the data within Banner was far less than required and as a result, the conversion team needed close to eight weeks to work through enough mapping and coding issues to allow for product testing to proceed at the pre-planned pace. This was one of the main reasons for the extension of the project go live date.
- Many of the initial conversion issues dealt with financial balances. An internal
 audit process was built to determine "out-of-balance" conditions once the
 converted data was loaded to CSS. The identification of these errors facilitated a
 finer analysis of the mapping specs against the source data.
- Capital overhead charges on internal National Grid labor were inconsistent from month to month during the last five months of the project and therefore difficult to forecast
- To provide a wider and deeper test bed, the project team started product testing
 trying to use the full volume set of converted RI Gas accounts. Test batch cycles
 ran too long to allow for the set-up and review of test scenarios within the same
 day. The testing team needed to eventually identify a subset of indicative source
 accounts to seed a test bed before more efficient testing could begin.
- The effort to re-establish the CSS technical test environments utilized for the New England electric conversion was underestimated and therefore understaffed. Although the environments were properly sized, the technical components (JCL, batch scheduling, retained data sets) were not kept current with the day-to-day CSS test environments. The functionality to advance testing dates (required for life cycle testing) needed to be recreated from scratch.

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USSC Closure Paper

4 CLOSEOUT ACTIVITIES

The following closeout activities have been completed.

Activity	Completed
All work has been completed in accordance with all National Grid policies	☑ Yes ☑ N/A
All relevant costs have been charged to project	☑ Yes ☑ N/A
All work orders and funding projects have been closed	☑Yes ☑N/A
All unused materials have been returned	☑Yes ☑N/A
All as-builts have been completed	☑Yes ☑N/A
All lessons learned have been entered appropriately into the lesson learned database	☑Yes ☑N/A

5 Decisions

The US Sanctioning Committee (USSC) approved this paper at a USSC meeting held on 12/12/2012
o
SignatureDateDate
Lee S. Eckert
US Chief Financial Officer
Chairman, US Sanctioning Committee

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SESC Closure Paper

nationalgrid

Title:	LI Gas Customer Migration	Sanction Paper #:	INVP 2582
Project #:	INVP 2582	Sanction Type:	Closure
Operating Company:	KeySpanGas East Corp.	Date of Request:	April 20, 2017
Author:	Riziel Cruz-Bower	Sponsor:	Evelyn Liddle, VP Performance
Utility Service:	IS	Project Manager:	Michael Pawlowski

1 <u>Executive Summary</u>

This paper is presented to close INVP 2582. The total spend was \$28.359M. The last sanction amount for this project was \$25.952M.

The final spend amount is \$28.359M broken down into: \$27.608M Capex \$0.751M Opex

2 Project Summary

The LI Gas Customer Migration Project migrated the entire Long Island Gas customer's data from the CAS application and other interfaced legacy applications to the Customer 1/ CSS application (CSS). Data conversion mapped all legacy applications to the corresponding field in the targeted applications which included 2 years of historical data converted to meet regulatory and billing requirements. The project modified, tested and deployed key interfaces between CSS and the legacy applications that remained in use serving the Long Island gas customers. This project consolidated all meter inventory data to the MITS inventory system resulting into one single system for all US National Grid meters. During the timeframe of this project, a new FCS meter reading software system was rolled out and deployed to interface and handle meter-reading activities.

This project deployed a complete "bill ready" model for Supplier Services enabling CSS to have both a "bill ready" and rate ready" model to support customer choice. This was a major enhancement required to maintain the Supplier Services model currently operational in downstate New York.

Furthermore, this project delivered a CAS electric only billing system to LIPA as part of the National Grid Divestiture.

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SESC Closure Paper

nationalgrid

This project was the 3rd in a series of Customer System Consolidation projects. The project has been a success as the key elements of this consolidation strategy were accomplished:

- Retired aged applications through consolidation on to a single platform
- Provided customers with enhanced features and services
- Optimized operations by reducing National Grid's application "footprint"
- Reduced interface requirements for future Front Office systems replacement
- Facilitated Call Center re-engineering, and their technology roadmap

2.1 In-Service Date

December 6, 2013

3 Over / Under Expenditure Analysis

3.1 Summary Table

Actual Spending (\$M)				
Project #	Description		Total Spend	
INVP 2582 L	LI Gas Customer Migration	Capex	27.608	
		Opex	0.751	
		Removal	0.000	
		Total	28.359	

Project Sanction Summary Table			
Project Sanction Approval (\$M)		Total Spend	
	Capex	25.064	
	Opex	0.888	
	Removal	0.000	
	Total Cost	25.952	
Sanction Variance (\$M)		Total Spend	
	Capex	(2.544)	
	Opex	0.137	
	Removal	0.000	
	Total Variance	(2.407)	

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SESC Closure Paper



3.2 Analysis

The Migration of the CAS gas customers to CSS was completed within the hard implementation date imposed by the LIPA divestiture of December, 2013. Scope increases introduced after the Design and Implementation sanctioning was the main driver for 9% cost increase. Overall, the project did very well even with a total variance of \$2.407M given the scope that it has to deliver.

4 Improvements / Lessons Learned

Description	Root Cause	Recommended Action
Project had scope control	There were limited	Insure that business resources
challenges which put undue	knowledgeable business	required for all phases of project
pressure on the fixed delivery	resources assigned to the project	are fully committed and
date and overall project cost.	to support the project	assigned by business segment
	requirements and user	leadership at start of project
	acceptance testing	
Change management activities	Change management lead did	Insure the right project
were not a robust as needed for	not have sufficient knowledge of	resources with the right skills &
the required end user training	customer system and related	knowledge are placed in to right
and customer communications	business processes to effectively direct and monitor all the	positions at the right time
	necessary training and	
	communications activities	
Some customers experience bill	Data analytics research on the	Insure that steps are taken to
impacts after the conversion	CAS customer billing data did not	understand the quality of the
that resulted in complaints to	occur. This research could have	billing information in the old
the NY PSC against the	forecasted customer and	system being converted so
company	business impacts such as poor	proper actions can be taken
, ,	read history and customers being	before the actual conversion to
	dropped from budget billing	minimize customer bill impacts.
	program after one missed bill	·
	payment.	
Energy Service Companies	End to end testing in Supplier	End user testing plans need to
experienced inaccurate billing	Services did not incorporate the	be comprehensive and need to
invoices for a period of a few	necessary reports required to	cover the total business process.
months after conversion go-live	appropriately invoice marketers	Insure knowledgeable business
	(e.g., imbalance and pool reports	resources are on the team so
	were not included in testing but	that proper test scenarios can
	are critical requirements for daily operations in the Retail Choice	be created & tested
	business area)	
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SESC Closure Paper



5 Closeout Activities

The following closeout activities have been completed.

Activity	Completed
All work has been completed in accordance with all National Grid policies	☑Yes ☑N/A
All relevant costs have been charged to project	☑ Yes ☑ N/A
All work orders and funding projects have been closed	☑ Yes ☑ N/A
All unused materials have been returned	☑Yes ☑N/A
All IS Service Transition Activities have been completed.	☑ Yes ☑ N/A
All lessons learned have been entered appropriately into the lesson learned database	☑Yes ☑N/A

6 Statements of Support

6.1 Supporters

The supporters listed have aligned their part of the business to support the project.

Role	Individual's Name
Business Executive Sponsor	Evelyn Kaye
Head of PDM	Deb Rollins
Relationship Manager	Aman Aneja
Program Delivery Manager	Deb Rollins
IS Finance Management	Chip Benson
IS Regulatory	Dan DeMauro
DR&S	Muks Ravipathy
Service Delivery	Brian Detota
Enterprise Architecture	Joseph Clinchot

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SESC Closure Paper



6.2 Reviewers

Reads paper for content / language. Recommends edits if necessary

Function	Individual	Area	
Regulatory	Zschokke, Peter	All	
	Anand, Sonny	New England - Electric	
Jurisdictional Delegate(s)	Harbaugh, Mark	New York - Electric	
Jurisdictional Delegate(s)	Hill, Terron	FERC	
	Brown, Laurie	Gas - NY	
	Currie, John	Gas - NE	
Procurement	Art Curran	All	

7 Decisions

The Senior Executive Sanctioning Committee (SESC) approved this paper at a SESC meeting held on April 20, 2017.	
SignatureDate	
Margaret Smyth	
US Chief Financial Officer	
Chair, Senior Executive Sanctioning Committee	

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 3 to DPS-974 Page 1 of 1

INVP 2583 Cancelled Charges Written Off

	Column Labels				
Row Labels	2014	2015	2016	2017	Grand Total
5110S-INVP2583 CRIS Migration			448.89		448.89
Other Expense			448.89		448.89
5110S-IS2733 INVP2583 CRIS to CSS C343	88,993.05	433,638.77	22,212,075.37	(1,883,210.38)	20,851,496.81
Benefits				951,026.04	951,026.04
Burdens	8,924.60	8,275.44			17,200.04
Consultants		340,210.04	55,091.07	17,580,724.37	17,976,025.48
Contractors	70,000.00	72,218.32	(157,474.00)	74,521.00	59,265.32
Hardware		1,262.20			1,262.20
Labor	9,430.35	8,701.43		1,735,624.46	1,753,756.24
Materials	638.10	922.38			1,560.48
Other Expense			22,309,048.27	(22,238,215.62)	70,832.65
Software		2,048.96	5,410.03	13,109.37	20,568.36
Grand Total	88,993.05	433,638.77	22,212,524.26	(1,883,210.38)	20,851,945.70

Charges transferred from INVP 2583 to 4172

Sum of Val/COArea Crcy	Column Labels		
Row Labels	2016		Grand Total
INVP 4172 - Cross Company Customer		6,620,048.70	6,620,048.70
Consultants		6,178,103.82	6,178,103.82
Contractors		197,948.98	197,948.98
Labor		120,000.00	120,000.00
Other Expense		37,852.36	37,852.36
Software		86,143.54	86,143.54
Grand Total		6,620,048.70	6,620,048.70

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 4 to DPS-974 Page 1 of 1

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The Brooklyn Union Gas Company
d/b/a National Grid
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KeySpan Gas East Corporation

USSC Closure Paper

Title:	Cross Company Enhancements	Sanction Paper #:	USSC-15-197-C
Project #:	INVP 4172 Capex: 90000164925	Sanction Type:	Closure
Operating Company:	National Grid USA Svc. Co.	Date of Request:	August 9, 2017
Author:	Riziel Cruz-Bower	Sponsor:	Doneen Hobbs, VP Services Delivery Center
Utility Service:	IS	Project Manager:	Michael Pawlowski

1 Executive Summary

This paper is presented for INVP 4172 Closure. The total spend was \$14.215M. The latest sanctioned amount for this project was \$13.510M at +/- 10% (project grade).

The final spend amount is \$14.215M broken down into:

\$13.894M Capex

\$ 0.321M Opex

\$ 0.000M Removal

2 Project Summary

The Cross Company Enhancements Project handled the successful implementation of some portions of the scope of INVP 2583 CRIS (Customer Related Information System) Migration when that project was cancelled in April 2015. The implemented scope included regulatory required features as well as tactical initiatives for National Grid's Gas and Electric customers in New York and New England that needed to be implemented. The key elements of the project included: (1) Process enhancements that optimized operations; (2) Retirement of old infrastructure that reduced risk and enhanced interface points for key processes (Field Operations, Finance/Revenue reporting, Retail choice, etc.); (3) Windows 7 update for compliance to all CSS (Customer Service System) end users, as Windows XP is no longer supported by Microsoft; (4) Changed out the interface between CSS and SAP for revenue transactions that use the prior PeopleSoft accounting to SAP accounting; (5) Enhancement of the Customer Systems and associated interfaces to support expansion of remote metering ID; (6) Verify Batch Refresh to include all CSS companies, and (7) KEDLI ESCo (Energy Service Company) Stabilzation activities.



KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 5 to DPS-974 Page 2 of 5

2.1 In-Service Date

July 29, 2016

3 Over / Under Expenditure Analysis

3.1 Summary Table

Actual Spending (\$M)					
Project #	Description		Total Spend		
			13.894		
INVP 4172	Cross Company Enhancements	Opex	0.321		
INVP 4172	Cross Company Enhancements	Removal	0.000		
		Total	14.215		
		Capex	13.894		
	Total	Opex	0.321		
i Otai		Removal	0.000		
		Total	14.215		

Project Sanction Summary Table					
Project Sanction Approval (\$M)	Project Sanction Approval (\$M) Total Spend				
	Capex	12.855			
	Opex	0.655			
	Removal	0.000			
	Total Cost	13.510			
Sanction Variance (\$M)		Total Spend			
	Capex	(1.039)			
	Opex	0.334			
	Removal	0.000			
	Total Variance	(0.705)			

3.2 Analysis

The Cross Company Enhancements Project delivered the intended scope on time with only 5% variance compared to the sanctioned amount.



KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 5 to DPS-974 Page 3 of 5

3.3 Schedule Variance

Schedule Variance				
Project Grade – Ready for Use Date 4/1/2016				
Actual Ready for Use Date	7/29/2016			
Schedule Variance	0 years, 3 months, 28 days			

The project scope was expanded by 21 approved change request items that extended the delivery target beyond the original date. There was another delay for the final go-live to allow for additional customer outreach activities before the new Access to Meters program was instituted.

4 Improvements / Lessons Learned/Root Cause

No.	Stage Impacted	Area Impacted	Positive / Negative Lesson	Lesson Learned	Recommended Action
1	Testing	Customer	Negative	UAT (User Acceptance Testing) delay because of other business priorities.	Ensure prior commitment from business leadership on UAT timelines.
2	Development	Customer	Negative	The requirements were changed last minute resulting in significant changes during development	In case of any tariff specific changes, regulatory must provide concurrence on requirements.
3	Implementation	Customer	Negative	Windows 7 Upgrade deployment was postponed 2 times because of bad weather resulting in change freeze	More thorough discussion/planning in considering weather during winter implementation.

Note: All lessons learned have been entered into the IS lessons learned database



The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 5 to DPS-974 Page 4 of 5

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5 Closeout Activities

The following closeout activities have been completed.

Activity	Completed
All work has been completed in accordance with all National Grid policies	⊙ Yes C No
All relevant costs have been charged to project	⊙ Yes C No
All work orders and funding projects have been closed	⊙ Yes C No
All unused materials have been returned	⊙ Yes C No
All IS Service Transition activities have been completed	⊙ Yes C No
All lessons learned have been entered appropriately into the lesson learned database	⊙ Yes C No

6 Statements of Support

6.1 Supporters

The supporters listed have aligned their part of the business to support the project.

Function	Individual
Business Executive	Doneen Hobbs
Sponsor	
Head of PDM	Deb Rollins
Relationship Manager	Joel Semel
Program Delivery Manager	Deb Rollins
IS Finance Management	Chip Benson
IS Regulatory	Dan DeMauro
DR&S	Muks Ravipathy
Service Delivery	Brian Detota
Enterprise Architecture	Joseph Clinchot



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6.2 Reviewers

The reviewers have provided feedback on the content/language of the paper.

Function	Individual	Area
Regulatory	Harvey, Maria	IS
	Harbaugh, Mark	Electric - NY
Jurisdictional Delegate(s)	Anand, Sonny	Electric - NE
	Hill, Terron	FERC
	Brown, Laurie	Gas - NY
	Currie, John	Gas - NE
Procurement	Curran, Art	All

Decisions

The US Sanctioning Committee (USSC) approved the	nis paper at a USSC meeting held
on <u>August 9, 2017</u> .	
Signature	Date
Christopher Kelly	
Senior Vice President, Electric Process and E	Engineering

KeySpan Gas East Corporation The Brooklyn Union Gas Company d/b/a National Grid Case 19-G-0309/0310 Attachment 6 to DPS-974 Page 1 of 6

USSC Closure Paper

nationalgrid

Title:	CRIS Migration	Sanction Paper #:	USSC-13-290v2C
Project #:	INVP 2583	Sanction Type:	Closure
Operating Company:	National Grid USA Svc. Co.	Date of Request:	February 14, 2018
Author:	Riziel Cruz-Bower	Sponsor:	Evelyn Liddle VP, Performance & PEX Community
Utility Service:	IS	Project Manager:	Michael Pawlowski

1 <u>Executive Summary</u>

This paper is presented to close INVP 2583. The total spend was \$20.850M. The partial sanctioned amount for this project was \$24.000M at +/- 10% (project grade).

The final spend amount is \$20.850M broken down into:

\$0.000M Capex \$20.850M Opex \$0.000M Removal

2 Project Summary

The Customer Related Information System (CRIS) is the 23 year old system of record for National Grid customers in the New York City and Massachusetts territories. This project intended to migrate National Grid's gas customers from CRIS to the target Customer Service System (CSS) used by the other operating companies. This project was the last one of the overall Customer System Conversion strategy to get to one customer system. The key elements of this consolidation strategy intended to included:

- Optimizing operations through system consolidation and standardization;
- Delivery of enhanced features and services to a wider customer base; and
- Retirement of aged applications, reducing risk and eliminating interface points for key processes (e.g., Field Operations, Finance/Revenue reporting, etc.).

National Grid cancelled this project in April 2015 after the Requirements and Design phase and pending sanctioning of the Design and Implementation phase. Some Design and Implementation activities had already begun at the time of cancellation. Some of these items continued and were implemented as a separate project. Associated costs were appropriately transferred to that project and aligned to the associated operating companies.

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2.1 In-Service Date

N/A

3 Over / Under Expenditure Analysis

3.1 Summary Table

Actual Spending (\$M)			
Project #	Description		Total Spend
		Capex	0.000
INVP 2583	CRIS Migration	Opex	20.850
11NV F 2505	CRIS MIGIATION	Removal	0.000
		Total	20.850
Project #	Description		Total Spend
		Capex	0.000
		Opex	0.000
		Removal	0.000
		Total	0.000
Total		Capex	0.000
		Opex	20.850
		Removal	0.000
		Total	20.850

Project Sanction Summary Table		
Project Sanction Approval (\$M)		Total Spend
	Capex	23.850
	Opex	.150
	Removal	0.000
	24.000	
Sanction Variance (\$M)		Total Spend
	Capex	23.850
	Opex	(20.700)
	Removal	0.000
	Total Variance	3.150

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3.2 Analysis

National Grid completed the Requirements and Design phase of this project in February 2015 as scheduled, and work began on the Development and Implementation phase of the project. However, on completion of the Requirements and Design phase, National Grid began an extensive review to validate the approach, timing and strategic priorities of this initiative and others in the Customer space. The recommendation of the study was for the Company to pursue other strategic priorities, including the acquisition of a new Customer system for the Company, rather than approve the funding for the completion of this project.

Note: All project costs are charged to OPEX because the project was cancelled.

3.3 Schedule Variance

N/A

4 Improvements / Lessons Learned/Root Cause

#	Lesson Learned	Recommended Action
1	Deployment approach changed midway through the project from a "Big Bang" approach to a regional implementation. The change adopted a less risky approach to allow time to complete key prerequisites projects like Automated Meter Reading in the KEDNY area, and data cleansing. The regional approach also would reduce the business/customer disruption.	Project implementation approach should be well vetted with all business leaders at the start to ensure accurate costs and delivery timeframes.
2	Benefits identified early in the project were not able to be supported as achievable when challenged during the Requirements and Design phase.	The project team needs to ensure benefits case is fully vetted with all business areas affected for effective implementation and realization of benefits upon project completion.

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5 Closeout Activities

The following closeout activities have been completed.

Activity	Completed
All work has been completed in accordance with all National Grid policies	⊙Yes ○N/A
All relevant costs have been charged to project	Yes ○ N/A
All work orders and funding projects have been closed	Yes ○ N/A
All unused materials have been returned	Yes ○ N/A
All IS Service Transition activities have been completed	⊙Yes ○N/A
All lessons learned have been entered appropriately into the IS Knowledge Tool lesson learned database	⊙Yes ○N/A

6 Statements of Support

6.1 Supporters

The supporters listed have aligned their part of the business to support the project.

Function	Individual
Business Representative	Evelyn Liddle
Head of PDM	Deb Rollins
Relationship Manager	Joel Semel
Program Delivery Director	Michael Pawlowski
IS Finance Management	Michelle Harris
IS Regulatory	Daniel DeMauro
DR&S	Elaine Wilson
Service Delivery	Mark Mirizio
Enterprise Architecture	Joseph Clinchot

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6.2 Reviewers

The reviewers have provided feedback on the content/language of the paper.

Function	Individual	Area
Regulatory	Harvey, Maria	IS
Jurisdictional Delegate(s)	Anand, Sonny	Electric - NE
	Harbaugh, Mark	Electric - NY
	Hill, Terron	FERC
	Currie, John	Gas - NE
	Wolf, Don	Gas - NY
Procurement	Chevere, Diego	All

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7 <u>Decisions</u>

The US Sanctioning Committee (USSC) approved this paper at a USSC meeting held on February 14, 2018.
SignatureDate
David H. Campbell, Vice President, ServCo Business Partnering, USSC Chair

Date of Request: August 6, 2019 Due

Request No. DPS-983 Date: August 16, 2019 NG Request No. NG-1322

KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

DPS Staff, Chelsea Kruger and Magen Bauer FROM:

TO: National Grid, Shared Services Panel

SUBJECT: **KEDLI CSS**

Request:

Note: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

Provide the date that KEDLI converted to CSS.

Response:

The KEDLI business was converted to the CSS system over the weekend of 12/7/2013. Acceptance of the conversion following the first batch cycle was achieved on 12/8/2013. Monday 12/9/2013 was the first full business day the system was up and running – the first business day of online processing – which is recorded as the official "in-service date".

Name of Respondent: Jeffrey P. Martin

Date of Reply: August 13, 2019

Date of Request: August 7, 2019 Due

Request No. DPS-988 Date: August 17, 2019 NG Request No. NG-1327

KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

FROM: DPS Staff, Chelsea Kruger and Magen Bauer

TO: National Grid, Information Technology Panel

SUBJECT: CIS Interaction with GBE and S/4 HANA

Request:

Note: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

Provide a detailed description of how the proposed CIS will interact with both the GBE program and S/4 HANA. Include specific programs, such as workforce management, where applicable.

Response:

Certain capabilities and integration points in the proposed CIS program support the work planned and being delivered by the GBE and S/4 HANA teams.

Gas Business Enablement (GBE)

Customer interaction activities traditionally supported by the CIS will in the future be handled through a Salesforce Customer Relationship Management (CRM) solution being developed and delivered by the GBE program. This new Salesforce-based CRM is initially being integrated to the legacy CIS systems (CSS and CRIS). When the new CIS is implemented, these integrations will be replaced with integrations to the new CIS. While the new CRM will manage interactions and provide customers with an improved experience (through personalization, products and services, and portal management), core customer account management functions, including usage calculation and tracking, billing, payment processing, collections, etc. will continue to be managed in the CIS.

In parallel with CRM delivery, the GBE program is delivering a new work management solution integrated with Salesforce Field Service Lightning (FSL) and IBM Maximo enterprise asset management.

The following is a subset of capabilities being delivered by GBE in parallel with the CIS procurement effort and project initiation. These capabilities are being integrated to the legacy CIS systems initially and will be re-integrated to the new CIS.

- creation of customers (prospective and active);
- customer interaction services including information provision (*e.g.*, billing and payment history) and transaction support (*e.g.*, move-in / move-out transactions, payment arrangements, billing adjustments);
- non-complex Customer Metering Services (CMS) "short-cycle" work order initiation and completion (customer and company initiated);
- work order status tracking;
- appointment set up and management;
- IVR screen pops and CSR alerts;
- contact history storage with ongoing notes and activity tracking;
- personalization and service integration with multiple customer portals (*e.g.*, web, IVR, mobile); and
- case management.

Integration to the legacy and new CIS systems is being accomplished with middleware technology from Mulesoft and Oracle, which will improve ongoing maintenance and transition. Some services written to the middleware will be re-used with the new CIS project; however, it is recognized that differing data models and processes will require some level of change.

S/4 HANA

The CIS program has defined integrations with the existing SAP ERP ECC system, including those for Revenue Reporting, Accounts Payable, and Accounts Receivable. The CIS program has selected SAP's Customer Relationship & Billing (CR&B) as its solution of choice, which will likely be the first deployment of an S/4 HANA instance at National Grid outside of a limited FERC reporting function. S/4 HANA is SAP's latest version of database, applications, business processes, and user interface (Fiori). S/4 HANA is also the migration path for the current ERP ECC system.

While it is feasible to configure and deploy SAP's latest CR&B CIS with integration to the existing ERP ECC system, there are benefits in preparing certain foundational elements in S/4 HANA in parallel with CIS. National Grid is currently considering those benefits as it determines the best program sequencing option.

Name of Respondent: Jeffrey P. Martin Date of Reply: August 19, 2019

Date of Request: August 8, 2019 Due

Request No. DPS-989 Date: August 19, 2019 NG Request No. NG-1328

KEYSPAN GAS EAST CORPORATION d/b/a NATIONAL GRID THE BROOKLYN UNION GAS COMPANY d/b/a NATIONAL GRID NY

Case Nos. 19-G-0309 & 19-G-0310 Gas Utilities Rates

Request for Information

FROM: DPS Staff, Magen Bauer

TO: National Grid, Shared Services Panel

SUBJECT: Residential Customer Arrears

Request:

Note: In all interrogatories, all requests for workpapers or supporting calculations shall be construed as requesting any Word, Excel or other computer spreadsheet models in original electronic format with all formulae intact and unlocked.

For the last five calendar years, provide the total residential customer arrears, in both customer count and dollar amount, for each Company.

Response:

Please see Attachment 1 for KEDLI and Attachment 2 for KEDNY for the total residential customer arrears by customer count and dollar amount. The information provided is from the PSC Collection Activity Report. Please note, the data provided includes arrears greater than sixty days, and is from December of the last five calendar years.

Name of Respondent: Kimberly Frodelius

Date of Reply: August 16, 2019

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	KEDLI	
	Customer Count	Dollar Amount
2014	48,036	\$ 28,831,671
2015	44,240	\$ 24,160,540
2016	39,909	\$ 19,915,063
2017	40,056	\$ 18,285,846
2018	41,656	\$ 19,240,124

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KEDNY

	Customer Count	Dollar Amount
2014	150,833	\$ 54,280,884
2015	154,307	\$ 68,591,856
2016	140,598	\$ 47,639,539
2017	149,406	\$ 50,275,623
2018	156,871	\$ 55,288,073

Customer Service Quality Program Current (Established in Cases 16-G-0058 and 16-G-0059)

KEDNY:	Current	
Category	Benchmark	Amounts at Risk
PSC Complaint Rate	≤ 1.1 Complaints per 100,000 Customers	\$4,680,000
Customer Satisfaction	≤ 84.8%	\$4,680,000
Adjusted Bills	1.69% or less 1.70% to 1.79% 1.80% to 1.89% 1.90% and over	0 \$585,000 \$877,500 \$1,170,000
Call Center Answer Rate	≤ 60.6% of calls answered by a CSR w/in 30 seconds	\$1,170,000
TOTAL		\$11,700,000

KEDLI:	Current	
Category	Benchmark	Amounts at Risk
PSC Complaint Rate	≤ 1.1 Complaints per 100,000 Customers	\$3,960,000
Customer Satisfaction	≤ 83.4%	\$3,960,000
Adjusted Bills	1.69% or less 1.70% to 1.79% 1.80% to 1.89% 1.90% and over	0 \$495,000 \$742,500 \$990,000
Call Center Answer Rate	≤ 62.2% of calls answered by a CSR w/in 30 seconds	\$990,000
TOTAL		\$9,900,000

Customer Service Quality Program Staff Proposal

KEDNY				
Category	Benchmark	Amounts at Risk		
PSC Complaint Rate	≤ 1.0 Complaints per 100,000 Customers	\$4,680,000		
Customer Satisfaction	≤ 86.7%	\$4,680,000		
Adjusted Bills	0.61% or less 0.62% to 0.63% 0.64% to 0.65% 0.66% and over	0 \$585,000 \$877,500 \$1,170,000		
Call Center Answer Rate	≤ 60.6% of calls answered by a CSR w/in 30 seconds	\$1,170,000		
TOTAL		\$11,700,000		

KEDLI				
Category	Benchmark	Amounts at Risk		
PSC Complaint Rate	≤ 1.0 Complaints per 100,000 Customers	\$3,960,000		
Customer Satisfaction	≤ 85.1%	\$3,960,000		
Adjusted Bills	0.4% or less 0.41% to 0.47% 0.48% to 0.55% 0.56% and over	0 \$495,000 \$742,500 \$990,000		
Call Center Answer Rate	≤ 65.8% of calls answered by a CSR w/in 30 seconds	\$990,000		
TOTAL		\$9,900,000		

Terminations and Uncollectibles Metric Current (Established in Cases 16-G-0058 and 16-G-0059)

KEDNY				
Customer Terminations Uncollectibles				
Threshold Target	34,638	\$12,494,661		
Average Target	37,916	\$16,119,628		

Positive Incentive (Full)	Positive Incentive (Partial)
\$1,260,000 if both measures are at or be threshold targets	elow is at or below threshold
	below average target

KEDLI				
Customer Terminations Uncollectibles				
Threshold Target	12,470	\$4,392,413		
Average Target	13,647	\$5,602,568		

Positive Incentive (Full)	Positive Incentive (Partial)		
\$840,000 if both measures are at or below threshold	· · · · · · · · · · · · · · · · · · ·		
	target and other is at or below average target		

Residential Collections Incentive Mechanism Staff Proposal

KEDNY				
Customer Uncollectibles Arrears Terminations				
Threshold Target	29,600	\$11,600,000	\$47,900,000	
Average Target	31,800	\$11,900,000	\$51,100,000	

Positive Incentive (Full)	Positive Incentive (Partial)
\$1,260,000 if all three measures are at or below the threshold targets	\$540,000 if the terminations measure is at or below the threshold target and the other two measures are at or below the average target

KEDLI				
Customer Uncollectibles Arrears Terminations				
Threshold Target	11,000	\$4,400,000	\$18,500,000	
Average Target	12,200	\$4,900,000	\$19,100,000	

Positive Incentive (Full)	Positive Incentive (Partial)
\$840,000 if all three measures are at or below	\$360,000 if the terminations measure is at
the threshold targets	or below the threshold target and the other two
	measure are at or below the average target