Niagara Mohawk Power Corporation Electric and Gas Rate Case Technical Conference May 15, 2015



Niagara Mohawk Power Corporation National Grid Albany Offices Broadway, Room 308ABC

Bill Stability... Investment and Improved Reliability ... and Enhanced Customer and Community Presence

Agenda

Welcome and Objectives		
Ron Gerwatowski/Cathy Nesser	10:00 – 10:15	15 mins
Rate Case Overview		
Pam Viapiano	10:15 – 10:30	15 mins
Revenue Requirements		
James Molloy	10:30 - 10:50	20 mins
Dave Doxsee (Productivity)	10:50 - 11:00	10 mins
		10 min question period
Infrastructure and Operations		
Bill Akley & Laurie Brown	11:10 – 11:30	20 mins
Keith McAfee & Allen Chieco	11:30 – 11:50	20 mins
		5 min question period
Customer		
Ed White	12:05 – 12:20	15 mins
		5 min question period
Rate Design		
Pam Dise	12:25 – 12:40	15 mins
Melissa Nairn	12:40 – 12:55	15 mins

5 min question period



Niagara Mohawk Electric and Gas Rate Proposal

- One Year Rate Plan that includes two subsequent years of data filed on April 27th
- Niagara Mohawk electric delivery rate increase of approximately \$130.7 million that will be offset by approximately \$190¹ million of deferral recoveries that will be removed from rates on March 31, 2013
 - This results in a decrease for all customer classes (except street lighting) and represents a total bill decrease of 2.1% for the typical residential customer
- Niagara Mohawk gas rate increase of approximately \$39.8 million partially offset by a net decrease in deferral recovery of approximately \$15.3 million. The Company proposes to further mitigate bill impacts by amortizing \$14.1 million per year of regulatory liabilities for three years. The result is a net increase in gas revenues of \$10.4 million
 - This results in a modest increase for all customer classes and represents a total bill increase of 2.3% for the typical residential customer

^{1.} The \$190 represents an estimated annualized amount of the total deferral recovery authorized of \$240m.

Niagara Mohawk Electric and Gas Rate Proposal (con't)

- Objectives:
 - Continue progress in strengthening the trust and confidence of the Commission and our customers
 - Adjust base rates to recover the Company's costs of providing safe and reliable electric and gas service to customers with a balanced proposal that mitigates the impact on customers' bills
- The filing assumes a 10.55% ROE with a 51% equity structure
- Rate year capital investment of \$454m for Electric and \$82m for Gas
- A number of new or modified Customer-Focused Programs being proposed

Niagara Mohawk Rate Proposal Key Elements

- Making progress on service company issues
 - Implementation of Liberty Audit recommendations to improve controls, governance, reporting, tracking and transparency of service company transactions underway
 - Adoption of a single set of cost allocation methodologies
 - Finalization of Service Level Agreements
- Company reports on progress in implementing Management Audit and reflects associated cost-benefits
- Recovery of a portion of variable pay to attract and retain a quality workforce motivated to achieve performance metrics tied to safety, reliability, customer satisfaction and other metrics that benefit customers; program was recently redesigned

Niagara Mohawk Rate Proposal Key Elements

- US Foundation (SAP Back office system)
 - Consolidation of financial, human resources and supply chain systems on a common SAP platform under the US Foundations Project is a critical path to address service company issues
 - Approximately \$80 million of costs will be borne by shareholders, including all implementation costs
 - Annual rent expense to Niagara Mohawk is \$11.9 million for the electric business and \$2.6 million for the gas business

- National Grid engaged Ernst & Young LLP ("E&Y") to review the accounting for costs charged from the service companies to Niagara Mohawk and its affiliates in the Historic Test Year.
- This detailed review was designed to identify misallocations, positive or negative, that may have occurred in the Historic Test Year so that we could correct them prior to filing.

Engaging Stakeholders



Company held more than 50 outreach meetings and communicated with more than 300 customers, various state agencies, local governments, school districts, and economic and community partners to ensure that we understood the priorities of our customers and reflected their feedback in this filing.

The Way Forward

- National Grid is delivering on our promise to customers:
 - We are committed to invest in New York
 - Our energy efficiency and economic development programs are leading the way in National Grid's overall partnership with customers, and our commitment to the communities we serve
 - We are doing so in an environment of rate stability, with a focus on efficiency and cost
- The Company will continue progress in strengthening the trust and confidence of the Commission and Staff
- Success of the Niagara Mohawk rate proposal is critical to enable us to continue to invest in our networks and communities with limited impact on customer bills

Niagara Mohawk Revenue Requirements – Technical Session



Revenue Requirements

Bill Stability... Investment and Improved Reliability ... and Enhanced Customer and Community Presence

Discussion Points

- Latest Rate Order Compared to Rate Filing
- Summary of Rate Base
 - Summary of Net Utility Plant
 - Summary of Regulatory Assets
 - Summary of Deferred Taxes
- Summary of Operating Expenses
 - Assumption
 - Test Year Scrub
 - Allocations
- Taxes Other than Income Taxes
- Data Years Increases

Current Rate Orders Compared to Rate Filing (E)

Changes For Rate Year Ending March 31, 2014 (in \$000)

Change in Net Revenues	(\$15,229)
Change in Operation & Maintenance Expenses	8,711
Amortization of Regulatory Deferrals	3,575
Change in Depreciation Expense	18,476
Change in Taxes Other Than Income Taxes	19,008
Change in Return on Rate Base	96,142
Total Base Rate Revenue Increase	\$130,682
Other Amortization Changes	<u>(190,000)</u>
Total Delivery Revenues Decrease	(\$59,318)
Percent of Total Delivery Revenues	(3.13%)

Current Rate Orders Compared to Rate Filing (G)

Changes For Rate Year Ending March 31, 2014 (in \$000)

Change in Net Revenues	\$1,002
Change in Operation & Maintenance Expenses	9,609
Amortization of Regulatory Deferrals	(1,084)
Change in Depreciation Expense	9,425
Change in Taxes Other Than Income Taxes	5,781
Change in Return on Rate Base	15,107
Total Base Rate Revenues Increase	\$39,840
Other Amortization Changes	<u>(29,427)</u>
Total Delivery Revenues Increase	\$10,413
Percent of Total Delivery Revenues	4.01%

Summary of Electric Rate Base

For the Year Ended December 31, 2011, the Rate Year and Data Years One and Two

	Reference	H Dece	istoric Year mber 31, 2011	Rate	e Year 2014	Dat	a Year 2015	Dat	a Year 2016
Net Utility Plant	Schedule 1	\$	4,687,580	\$	5,364,218	\$	5,684,206	\$	6,018,570
Regulatory Assets / Liabilities	Schedule 2		412,486		(16,035)		(22,086)		(28,878)
Accumulated Deferred Income Taxes - Federal	Schedule 3		(1,123,127)		(1,210,125)		(1,240,227)		(1,272,502)
Accumulated Deferred Income Taxes - State	Schedule 3		(172,480)		(195,951)		(208,914)		(222,912)
Working Capital									
Materials and supplies	Schedule 6 Page 10		20 832		31 108		31 769		32 468
Prenavments	Schedule 6, Page 20		(101.021)		(105, 344)		(107 583)		(109,950)
$\Omega \otimes M$ Cash Allowance (1/8 $\Omega \otimes M$ exp)	Schedule 4		(10.785)		90.039		89.481		88.837
Supply Cash Allowance (Dec 11 lead/lag study)	Schedule 5		(,)		34,443		34,443		34,443
Change in Supply Cash Allowance (3.64 % x RY PP exp)	Schedule 5		0		(6,805)		(5,931)		(4,504)
subtotal Working Capital			(81,974)		43,441		42,178		41,294
subtotal avg. before EBCAP adj.			3,722,485		3,985,547		4,255,157		4,535,572
Excess Earnings Base adjustment	Schedule 6, Page 4		10,977		(23,465)		(23,465)		(23,465)
Total Electric Rate Base		\$	3,733,462	\$	3,962,082	\$	4,231,692	\$	4,512,107

Summary of Gas Rate Base

For the Year Ended December 31, 2011, the Rate Year and Data Years One and Two

	Reference	H Dece	istoric Year mber 31, 2011	Rate Year 2	014	Data	a Year 2015	Dat	a Year 2016
Net Utility Plant	Schedule 1	\$	1,222,472	\$ 1,292,2	15	\$	1,330,521	\$	1,367,266
Regulatory Assets / Liabilities	Schedule 2		(35,343)	5,2	.99		6,249		7,254
Accumulated Deferred Income Taxes - Federal	Schedule 3		(229,847)	(250,5	29)		(258,510)		(266,742)
Accumulated Deferred Income Taxes - State	Schedule 3		(18,675)	(24,8	31)		(28,128)		(31,621)
Working Capital									
Materials and supplies	Schedule 6. Page 19		59.723	62.2	78		63.602		65.001
Prepayments	Schedule 6, Page 20		(18,897)	(19,7	(05)		(20,124)		(20,567)
O&M Cash Allowance (1/8 O&M exp)	Schedule 4		(2,897)	15,6	98		15,616		15,055
Supply Cash Allowance (Dec 11 lead/lag study)	Schedule 5			21,6	54		21,654		21,654
Change in Supply Cash Allowance (5.66% x RY PP exp)	Schedule 5		0	(8,5	39)		(7,752)		(7,041)
subtotal Working Capital			37,929	71,3	86		72,996		74,102
subtotal avg. before EBCAP adj.			976,535	1,093,5	40		1,123,128		1,150,260
Excess Earnings Base adjustment	Schedule 6, Page 4		2,620	(19,0	34)		(19,034)		(19,034)
Total Electric Rate Base		\$	979,155	\$ 1,074,5	06	\$	1,104,094	\$	1,131,226

Electric & Gas Net Utility Plant

- Plant In Service
 - December 2011 plant balance plus forecasted capital expenditures closed through rate year
 - Capital expenditures linked to business plan and described in IOP testimony
 - Closing rules
 - Large projects specific closing date
 - Smaller projects based on rule for type of asset
 - Retirements
- Depreciation Reserve
 - December 2011 balance plus depreciation through rate year
 - Retirements
 - Cost of Removal
- Non-Interest Bearing CWIP

Regulatory Assets Assumptions

Electric

- Discontinue the current surcharge
- Outside base rates with a carrying charge
- Estimated credit balance of \$128.3 million at March 31, 2013
- Retain deferrals for future rate mitigation with carrying charges

Gas

- Move deferral recoveries to a surcharge outside base rates
- Estimated credit of \$40.6 million at March 31, 2013
- \$14.1 deferral credit in the rate year

Deferred Taxes Assumptions

- Regulatory Assets Related
- Plant Related
 - Bonus Depreciation

Applied through December 2012

- Normal MACRS
- Repair Costs

Assumed at 18.1% for electric and 33.4% for gas

Cost of Removal

Flow thru over five year (per Commission Policy)

Summary of Operating Expenses-E

Adjusted Historic Year & Rate Years (\$000)

		<u>Test Year</u>	Rate Year 2014
1	Beginning Balance	\$ 1,053,389	\$ 969,355
	A divertments to Poflast Conditions in Pata Year		
2	Adjustments to Reflect Conditions in Rate Teal	751	
2	A divist Capitalization 94	(2,220)	
4	A divisit the electricity and allocation	2,120	
- 4	Adjust the electric/gas anocation	2,135	- 1162
5	Customer Education		1,162
7	Economic Development Funding	- 1.627	11,000
~	Electric Company Analysis	(43,622)	
0		1.012	16 500
10	Energy Efficiency	(499)	10,509
10	Expatition Dent formant	(488)	
10	Facilities kent forecast		504
12	General Inflation	- 1.010	5,854
13	injuries & Danages	1,019	
14	Inspection & Maintenance Program		(1,621
15	IS kents forecast	-	25,432
16	KS Synergy Savings	(625)	(27)
17		(20,133)	
18	New Allocation Codes	(12,898)	
19	New Initiatives - Electric Other		336
20	OPEB Allowance		(66,215)
21	Opex Related to CapEx	-	5,587
22	Other .	(6,043)	-
23	Payroll Inflation	-	8,908
24	Pension Allowance	-	523
25	Postage & Paperless Savings at E-Bill Account Volume	836	150
26	Productivity	-	(5,516)
27	R&D Distribution Operations	-	207
28	Rate Case Expense	-	669
29	RDV Write-off	(287)	-
30	Reclass expense to below the line	(631)	
31	Reclass payroll taxes to operating taxes	(1,544)	-
32	Regulatory Assessments	-	(2,658)
33	RPS	567	23,414
34	Rent Expenses	335	-
35	Reversal of Storm Deferral	37,207	-
35	SERP Adjustment related to prior period	6,592	-
36	SBC	1,490	(20,054)
37	SIR	(13,182)	19,487
38	Storm Fund	-	29,000
39	Sub-Transmission Maintenance		1,500
40	Test-Year Analysis	(42,268)	-
41	To remove Service Company AFUDC	2,334	-
42	Tower Painting	-	2,430
43	Transmission Footer Inspections & Other Maintenance	-	1,593
44	Transmission Rent forecast	-	542
45	Transportation	(4,156)	1,437
46	Uncollectibles	7,256	(14,482)
47	USFP Support Staff	-	1,063
48	US Restructuring	-	(11,467
49	Vegetation Management	-	2,572
50	Total Adjustments to Reflect Conditions in Rate Year	(84,034)	37,899
51	En dia a Dalaman	¢ 060.255	\$ 1,007,254
51	Ending balance	J 909,355	э 1,007,254

Summary of Operating Expenses-G

Adjusted Historic Year & Rate Years (\$000)

		<u>Test Year</u>	Rate Year 2014
1	Beginning Balance	\$ 201,506	\$ 194,530
	Adjustments to Reflect Conditions in Rate Year		
2	Adjust Allocation % from Service Company	154	-
3	Adjust Capitalization %	(455)	639
4	Adjust the electric/gas allocation	(2,139)	-
5	Customer Education	-	238
6	Economic Development Funding	-	1,000
7	E&Y Service Company Analysis	49	-
8	Energy Efficiency	(9,472)	9,080
9	Ex Pat Proxy	(95)	-
10	Facilities Rent forecast		77
11	Gas Damage Prevention	-	244
12	General Inflation	-	1,467
13	Injuries & Damages	490	_
14	Inspection & Maintenance Program	-	2,036
15	IS Rents forecast	-	4,388
16	KS Synergy Savings	(154)	(7)
17	Labor	(1,585)	
18	New Allocation Codes	403	-
19	Natural Gas Vehicles	-	1,500
20	OPEB Allowance	_	(15,369)
21	Opex Related to CapEx	-	466
22	Other	(1,607)	-
23	Payroll Inflation	-	1,180
24	Pension Allowance	-	(603)
25	Postage & Paperless Savings at E-Bill Account Volume	171	31
26	Productivity	-	(987)
27	Rate Case Expense	-	137
28	Reclass expense to below the line	(135)	-
29	Reclass payroll taxes to operating taxes	(630)	_
30	Regulatory Assessments		2,520
31	Rent Expenses	(10)	-
32	SERP Adjustment related to prior period	1,350	_
33	SBC	10,490	(16,914)
34	SIR	(2,748)	3,022
35	Test-Year Analysis	(5,031)	_
35	To remove Service Company AFUDC	328	-
36	Transportation	(959)	320
37	Uncollectibles	4,608	(5,601)
38	USFP Support Staff	-	182
39	US Restructuring	-	(2,264)
40			
41	Total Adjustments to Reflect Conditions in Rate Year	(6,976)	(13,218)
42			
43	Ending Balance	\$ 194,530	\$ 181,312

O&M Expense Assumptions

Major Rate Year Adjustments

General Inflation, Payroll Inflation, IS Rent, Facility Rent, Pension, OPEB, Synergies, Productivity, US Restructuring, Transportation, Uncollectible, Ex Pat Proxy, Rate Case Expense, Injuries and Damages, Test Year Scrub, Allocation Study

Operational Related Rate Year Adjustments

Inspection and Maintenance, Operation Expense related to Capital Expenditures, SIR, Storm Fund, Gas Damage Protection, Tower Painting, R&D Expenditures, Vegetation Management, Paperless Billing (e-billing), Alternative Fuels, Economic Development Funding, Customer Education, Distributed Generation Staff, USFP Support Staff, Capitalization Changes

Non-Base Rate Expense Rate Year Adjustments

- Revenue not Addressed in this Case

18-a Assessment, Energy Efficiency, Renewable Portfolio Standard, SBC

O&M Expense Test Year Scrub

- Ernst & Young Review of Service Company Operating Expense
 - Procedures included validation of data based on examination of underlying source documentation including the following:
 - Vendor costs
 - 75% of service company charges through a combination of selecting the largest items and random sampling from the remaining items

Payroll expenses

- Judgmental sampling of payroll data
- Comparison of payroll expense to employee expense charging

Employee expenses

- Sample testing of direct charging and allocations utilized
- Data mining for key words and judgmental sampling techniques of specific expense types (e.g., dues, lobbying)

General ledger journal entries

Judgmental sampling of specific transaction types (e.g., adjustments, corrections, manual uploads)

Company review of NMPC direct expense used a similar approach to Ernst & Young

O&M Expense Service Company Allocation

- Liberty
- PA Consulting
- Conversion to a single general allocator
- Creation of new cost causal allocator
- Proposed reduction of \$13 million for the change in allocation rates with the implementation of the new accounting platform (SAP)

Other Taxes Assumptions

Property Taxes

Calculation of rate years reflect adjustments for new plant closings above historical average, plant retirements, and 3.2% inflation factor (consistent with last order)

Gross Receipts Taxes

Calculation of rate years uses the GRT taxes per the revenue forecast offset by the forecasted Power for Jobs Discount

Payroll Taxes

Follows same assumptions & process as payroll amounts

Sales Taxes

Calculation of rate years is adjusted historic year increased by general inflation

Other Taxes

Calculation of rate years is adjusted historic year increased by general inflation

Data Year Revenue Requirements

Assuming a three year plan and an ROE of 10.90%

Gas

Rate Year	\$ 43.175 Million
Data Year 1	\$ 8.871 Million
Data Year 2	\$ 4.767 Million
Electric	
Rate Year	\$142.854 Million
Data Year 1	\$ 69.759 Million
Data Year 2	\$ 48.571 Million

Data Year Revenue Requirement increases primarily driven by increased capital investment (increases in rate base, depreciation and property taxes)

Exhibits/Schedules

Book 11

- Testimony
- RRP-1: Statement of Operating Income
- RRP-2: Summary of Normalization Adjustments
- RRP-3: Operation and Maintenance Expenses
 - Summary Schedule
 - Schedules 1 through 18
- Book 12
 - RRP-3: Operation and Maintenance Expenses
 - Schedules 19 through 52

Exhibits/Schedules

Book 13

- RRP-4: Depreciation Expense
- RRP-5: Taxes Other than Income Taxes
- RRP-6: Federal and State Income Taxes
- RRP-7: Electric Rate Base
 - Schedule 1: Electric Net Utility Plant in Service
 - Schedule 2: Regulatory Assets and Liabilities
 - Schedule 3: ADIT
 - Schedule 4: Working Capital
 - Schedule 5: Lead Lag Study
 - Schedule 6: Earnings Report/Earnings Capitalization

Exhibits/Schedules

Book 13 (Continued)

- RRP-8: Table of Inflation Factors
- RRP-9: Sample Deferral Exhibits
 - Schedule 1: Capital Expenditure Tracker
 - Schedule 2: Deferral Rate Allowances
 - Schedule 3: Storm Fund Deferral
 - Schedule 4: Auction Rate Debt
- RRP-10: Various Historic Financial Exhibits
 - Schedule 1 through 13

Exhibits/Schedules

Book 14

RRP-11: Workpaper Data Supporting Certain Exhibits

Workpapers Supporting Exhibit RRP-2

Workpapers Supporting Exhibit RRP-3 Schedules 1 through 2

Book 15

RRP-11: Workpaper Data Supporting Certain Exhibits (cont'd)

Workpapers Supporting Exhibit RRP-3 Schedules 4 through 6

- Book 16
 - RRP-11: Workpaper Data Supporting Certain Exhibits (cont'd)

Workpapers Supporting Exhibit RRP-3 Schedules 7 through 13

Exhibits/Schedules

- Book 17
 - RRP-11: Workpaper Data Supporting Certain Exhibits (cont'd)
 - Workpapers Supporting Exhibit RRP-3 Schedules 14 through 23
- Book 18
 - RRP-11: Workpaper Data Supporting Certain Exhibits (cont'd)
 - Workpapers Supporting Exhibit RRP-3 Schedules 24 through 47
- Book 19
 - RRP-11: Workpaper Data Supporting Certain Exhibits (cont'd)
 - Workpapers Supporting Exhibit RRP-3 Schedules 24 through 47
 - Workpapers Supporting Exhibit RRP-5
 - Workpapers Supporting Exhibit RRP-7

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Efficiency and Productivity Cost Reductions

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- Niagara Mohawk's electric and gas costs of service reflect an unprecedented level of productivity and efficiency savings
 - \$56.2 M of KeySpan merger savings
 - \$55.8 M from the US Restructuring Program
 - \$6.5 M from the traditional 1% productivity adjustment
 - Customers will receive these savings whether or not they are fully realized
- Achieving the US Restructuring Program savings in addition to those realized from the KeySpan merger has and will continue to be an enormous challenge
- National Grid believes it has identified the maximum level of savings that can be achieved from the US Restructuring Program
- The Company is not seeking recovery of its share of the costs to achieve US Restructuring savings which total \$130 M
- Savings will be achieved without compromising the ability to provide safe and reliable service

- The US Restructuring Program has reduced operating costs by \$203.8 M as of March 31, 2012 measured from a baseline of fiscal year 2010 year financial results
 - Exceeds the publically announced cost reduction target of \$200 M
 - Including savings estimated to be achieved by March 31, 2013, operating costs will be reduced by \$232.7 M or \$32.7 M more then the external target
- Measured from a baseline of fiscal year 2011 financial results it is estimated that the Program will reduce operating costs by \$171.7 million on an annualized basis by March 31, 2013.
 - To challenge employees to achieve the maximum level of savings, senior management established a more aggressive internal cost reduction target of \$200 million measured off of FY 2011 results to ensure that the external target was met
 - This stretch target meant finding an additional \$61 M of saving since FY 2011 operating costs were lower than those in FY 2010 by that amount

- US Restructuring Program savings are comprised of labor and non-labor savings.
- Labor savings are tracked by position.
- The Company is tracking non-labor US Restructuring Program savings similarly to how it tracked KeySpan merger savings.
 - A database has been created that lists each initiative, the savings target and when the target is expected to be achieved on a run rate basis. This enables calculation of future annual savings and actual savings to date.
 - Instructions on tracking of savings initiatives were provided to the teams in July 2011. This included instructions on completing tracking scorecards for both labor and nonlabor initiatives

- As a result of the US Restructuring Program National Grid will have eliminated approximately 1400 positions by the beginning of the rate year
 - Reduces US labor costs by \$102.4 M and Niagara Mohawk's labor costs by \$34.6 M
- US non-labor cost savings from the Program are estimated to total \$69.3M by the beginning of the rate year of which \$21.3 M are being allocated to Niagara Mohawk
 - Two-thirds or \$13.8 M of the Niagara Mohawk's share of these savings which have been reflected in the rate year have yet to be achieved and are far from certain
 - The non-labor savings are comprised of more than 100 individual initiatives, some examples of these initiatives are Transportation; Right Sizing the Fleet, Materials; Partial Reel Management, Reduction in Cell Phones and Air Cards and IS Service Delivery – New Vendor Arrangements.

US Restructuring Savings – NMPC

TOTAL US	Achieved Run Rate as of 3/31/11	Achieved Run Rate as of 12/31/11	Incremental Run Rate achieved as of 3/31/12	Est. Incremental Run Rate to be achieved as of 3/31/13	Cumulative Savings
US Restructuring Labor (including non-enduring roles) Non-Labor		48.2 22.3	47.0 25.3	7.2 21.7	102.4 69.3
Total		70.5	72.3	28.9	171.7
Savings from FY10 actual performance	61.0	131.5	203.8	232.7	
Savings from FY11 actual performance	0.0	70.5	142.8	171.7	

NMPC Total	Achieved Run Rate as of 12/31/11	Incremental Run Rate achieved as of 3/31/12	Est. Incremental Run Rate to be achieved as of 3/31/13	Cumulative Savings
US Restructuring Labor (including non-enduring roles)	16.4	17.2	1.0	34.6
Non-Labor	7.5	7.5	6.3	21.3
Total	23.9	24.7	7.2	55.8
Savings from FY11 actual performance	23.9	48.6	55.8	

Non-Labor Savings to be achieved on a RR basis by 3/13		13.8
General inflation	4.2785%	0.6
Rate Year Non-Labor Adjustment		14.3
Additional Productivity Adjustment @1% of payroll		6.5
Total Estimated Adjustment to Case		20.8
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Gas Infrastructure and Operations Panel

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Gas Infrastructure and Operations

- Investment plan designed to provide safe and reliable gas service at a reasonable cost to our gas customers.
 - Meet current state and federal regulatory requirements applicable to the gas system
 - Address gas demands and system operating requirements
 - Maintain gas safety performance measures and service levels
 - Focused asset replacement driven by condition assessment and risk evaluation

NMPC Gas 5 Year CapEx (000)

Spending Rationale	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17
Gas Growth	\$19,620	\$19,494	\$19,773	\$20,088	\$20,725
Gas Mandated	\$37,721	\$49,451	\$49,249	\$49,935	\$50,636
Gas Reliability	\$7,546	\$11,142	\$9,934	\$9,133	\$8,867
Non-Infrastructure	\$1,255	\$1,280	\$1,305	\$1,331	\$1,358
TOTAL*	\$66,142	\$81,366	\$80,261	\$80,487	\$81,586

*Does not include Cost of Removal

NMPC CapEx by Spending Rationale



NMPC Gas Growth

- Current low gas prices provide a unique opportunity to expand availability of natural gas to spur economic development, address climate change and ultimately benefit our customers and communities
- National Grid will propose a collaborative, to bring together Staff, customers, marketers, pipeline companies and other interested parties to:
 - Develop a plan to expand gas service to large customers in the Capital Region and Northeast
 - Consider a pilot with 1 to 3 local communities to bring gas service to either a new franchise or foster growth within an existing franchise; pilot to include extensive customer outreach
 - Devise creative revenue recovery options
 - Collaborative recommendations concerning infrastructure needs and related revenue recovery options would become part of the Company's capital plan to be considered in the rate case
- Responds to request from several large customers, including Office of General Services, for firm gas service
- Provides communities with way to help local businesses and residents save money while increasing tax revenue



Gas Infrastructure Plan (FY13-17)

Gas Growth

- Gas System Reinforcement (\$7.4M)
 - Maintain pressures above system minimums during peak day demands.

Gas Infrastructure Plan (FY13-17)

Gas Mandated (spend in anticipation of Pipeline Safety Act of 2011)

- Leak Prone Pipe-LPP (\$144.0M)
 - Accelerate replacement of LPP from 25mi/yr to 35 mi/yr
- Gas Transmission-Pipeline Integrity (\$25.5M)
 - Investment required to comply with mandated PHMSA Integrity Management Program
- Inside Atmospheric Inspections (\$7.5M)
 - Remediation of gas service piping exposed to atmospheric corrosion
- Corrosion/Bridge Inspections (\$5.8M)
 - Remediation and replacement of above ground gas mains at bridge locations and associated underground piping

Gas Infrastructure Plan (FY13-17)

Gas Reliability (spend in anticipation of Pipeline Safety Act of 2011)

- Remote Control Valve (RCV) Program (\$4.3M)
 - Installation of RCV's to improve emergency response and reduce risk
- Pressure Regulating Facilities (\$27.0M)
 - Heater replacement, pressure regulator management, control line integrity and special projects identified
- System Automation (\$6.5M)
 - Installation of RTU's at gate stations and regulator stations
- Distribution Valve Program (\$1.45M)
 - Installation and replacement of distribution valves to align with customer population and reduce sectionalizing district size

Gas OpEx associated with CapEx Plan for Rate Year

- Gas Transmission-Pipeline Integrity (\$0.300M)
 - Perform required inspections and assessments, and evaluate test data
- Remote Control Valve (RCV) Program (\$0.025M)
 - Performance testing, annual inspections and required maintenance
- System Automation (\$0.125M)
 - Lease lines and cell connections for RTU's
- Distribution Valve Program (\$0.120M)
 - Valve inspection, required maintenance and repair

nationalgrid

Gas OpEx Plan for Rate Year

- Inside Atmospheric Inspections (\$8.5M)
 - Performance of inspections (187,000/yr), minor repairs and managing customer access
- Corrosion/Bridge Inspections (\$1.7M)
 - Bridge inspections with knuckle boom trucks and special equipment, and assessment of Black River crossings
- Damage Prevention (\$0.244M)
 - 2 full time employees to focus on onsite education for excavation community, and includes vehicles and equipment

Exhibits/Schedules

Book 26-Gas Infrastructure and Operations Panel

- GIOP-1: Actual and Projected Capital Expenditures Historic Test Year (ended December 31.2011), Projected Year End for Fiscal Year (FY) 2012, and the Budget Estimates for FY 13-17
- GIOP-2: Actual and Projected Annual Investment Levels. FY10-FY17
- GIOP-3: Installation History of Cost Iron and Bare Steel Main
- GIOP-4: Historic Leak Rates
- GIOP-5: Projected Leak Rates for Leak Prone Pipe for Different Main Replacement Strategies
- GIOP-6: Data Sheets for Significant Capital and O&M Programs
- GIOP-7: Gas Operating Procedure for the Identification, Evaluation and Prioritization of Distribution Main Sergeants for Replacement (020053-PL)

Niagara Mohawk Power Corporation Electric and Gas Rate Case Technical Conference May 15, 2012



Electric Infrastructure and Operations Panel

Bill Stability... Investment and Improved Reliability ... and Enhanced Customer and Community Presence



Electric Infrastructure and Operations

- Investment plan designed to provide safe and adequate service at reasonable cost and in an environmentally sound manner. Includes spending to:
 - Meet current state and federal regulatory requirements applicable to the electric system
 - Address loading / usage issues
 - Maintain service levels
 - Focused asset replacement driven by condition assessment and risk evaluation

Electric Infrastructure Plan (FY13-FY17)



System	FY13	FY14	FY15	FY16	FY17
Transmission	132.0	145.0	160.0	165.0	170.0
Sub-transmission	46.0	50.0	54.0	58.0	63.0
Distribution	235.0	247.0	258.0	269.0	277.0
Total	413.0	442.0	472.0	492.0	510.0

Electric Infrastructure Plan (FY13-FY17)

Transmission

- Northeast Region Reinforcement (\$128M)
- Clay/Porter station compliance to NPCC (\$51M)
- Conductor Clearance 345kV & 230kV (115kV included over 8 years) (\$58.6M)
- SW Region reinforcement (\$66.4M)
- Deferral mechanism for costs incurred to maintain reliability in response to generation changes, and comply with new NERC BES "bright line" definition and transmission planning criteria

Electric Infrastructure Plan (FY13-FY17)

Sub-Transmission

- Inspection & Maintenance (\$59.1M)
- Buffalo 23kV cable replacement due to capacity constraints (\$17.3M)
- Line Refurbishment targeted asset replacement from inspection and testing (\$53.8M)
- Randall Rd, Ash St, Oneida stations asset condition station rebuilds (\$18.6M)

Electric Infrastructure Plan (FY13-FY17)

Distribution

- Public requirements and new business (\$454.8M)
- Inspection & Maintenance related capex (\$127.8M)
- Damage/Failure (\$124.4M)
- Arc Flash 480V networks, NESC required (\$16.5M)
- RTU expansion & installation (\$13.5M)

Electric Infrastructure Plan (FY13-FY17)

Distribution

- Buffalo indoor substations 1930 vintage (\$28.9M)
- Wetzel, Frankhauser, & South Livingston substations pockets of local growth (\$17.8M)
- Metal Clad switchgear 10 locations determined by acoustic testing (\$16.4M)
- Targeted breakers & circuit switchers (\$50M)
- Buffalo street light wire replacement proactive replacement from mobile elevated voltage testing (\$12.5M)
- UG cable replacement Utica, Troy, Albany (\$10.9M)

Other Electric and Common Capital (FY13-FY17)

- Facilities \$37.8M
- EMS \$12.8M
- Fleet \$1.87M
- Investment recovery / Inventory management \$0.8M



- Distribution Inspection & Maintenance Program, Electric Safety Standards 04-M-0159 (net decrease)
- Transmission & Sub-Transmission Maintenance (net increase)
- Vegetation Management (net increase)
- Estimating; performance metrics



- Distribution Inspection & Maintenance
 - Forecasting \$7.06M/yr (net decrease from HTY (\$10.8M))
 - New inspection programs:
 - UG Network Inspections & DGA testing (\$0.366M) increase inspections to 2/yr, initiate DGA oil testing for Network Transformers
 - Switched Capacitor and Recloser Inspections (\$0.508M) new inspection program reflecting high number of installs over past several years



Tower Painting

- Incremental spend for transmission (\$2.448M) and sub-transmission (\$0.500M)
- Funding below that needed for 20 year cycle
- Ground Line Footer and Hardware Inspection & Repairs
 - Increase (\$1.593M) transmission spend from HTY, which was under budget due to delays linked to new safety and engineering process
 - Sub-transmission incremental spend (\$1.0M) to implement new program similar to transmission

Extend tower life, reduce long-term costs



Vegetation Management

- Karner Blue Butterfly (\$0.127M) Program not reflected in HTY due to timing of permits from US Fish and Wildlife Service
- Sub-Transmission Widening incremental spend (\$2.4M) to expand program to address 140 miles/yr of sub- transmission ROW (up from 66 miles in HTY) to reduce risk of an outage due to limb or uprooted tree contact



- Major Storm Cost Recovery
 - Reconciling \$29M storm fund
 - Based on a 10 year average of incremental costs
 - Reserve accounting with annual reconciliation
 - Propose changes to per-storm deductible, 5-day post-storm restoration period and contractor disallowance



Electric Infrastructure and Operations

- Estimating metric propose changes to:
 - Exclude DOT/Public works & Generator Interconnection projects from metric due to dependency on third party scope and schedule impact
 - Revise calculation for negative revenue adjustment

No changes to other service metrics

- Book 27
 - EIOP-1: Summary of Planned Capital Investment by System, April 1, 2012-March 31, 2017
 - EIOP-2: Summary of Actual and Planned T&D Infrastructure Investment by System, Fiscal Year 2008-Fiscal Year 2017
 - EIOP-3: Summary of Planned Investment for Electric and Common Capital Plant and Cost of Removal, January-March 2012-Fiscal Year 2017
 - EIOP-4: Comparison of Annual Actual and Budgeted Investment Levels, Fiscal Year 2008-Fiscal Year 2012
 - EIOP-5: Transmission Capital Investment Plan, Fiscal Year 2013-Fiscal Year 2017
 - EIOP-6: Details of Significant Transmission Capital Investment Plan Projects and Programs, Fiscal Year 2013-Fiscal Year 2017

- Book 28
 - EIOP-7: Sub-Transmission Capital Investment Plan, Fiscal Year 2013-Fiscal Year 2017
 - EIOP-8: Details of Significant Sub-Transmission Capital Investment Plan Projects and Programs, Fiscal Year 2013-Fiscal Year 2017
 - EIOP-9: Distribution Capital Investment Plan, Fiscal Year 2013-Fiscal Year 2017
 - EIOP-10: Details of Significant Distribution Capital Investment Plan Projects and Programs, Fiscal Year 2013-Fiscal Year 2017
 - EIOP-11: Shared Services Capital Investment Plan, Fiscal Year 2013-Fiscal Year 2017
 - EIOP-12: Summary of Known and Measureable O&M Program Cost Changes from the Historic Test Year

- Book 28 continued
 - EIOP-13: Comparison of Maintenance Instances Before and After a Major Storm Event
 - EIOP-14: Operations and Network Strategy Labor Adjustments
 - EIOP-15: Project Cost Estimating Performance Detail, CY 2011
 - EIOP-16: Guidelines for Consideration of Non-Wires Alternatives in Transmission and Distribution Planning
 - EIOP-17: Report on Work Order Closeout Efforts
 - EIOP-18: Research, Development & Demonstration Spending Plan, Fiscal Year 2014-Fiscal Year 2018

- Book 29
 - EIOP-19: Annual Transmission and Distribution Capital Investment Plan Submitted January 31, 2012, pp.1-173
- Book 30
 - EIOP-19 continued: 15-Year System Plan Submitted February 29, 2012, pp.174-375
- Book 31
 - EIOP-19 continued: Report on the Condition of Physical Elements of Transmission and Distribution Systems Submitted September 30, 2011, pp.376-684

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Customer Focused Programs

Bill Stability... Investment and Improved Reliability ... and Enhanced Customer and Community Presence

Customer – Focused Programs

- Economic Development Programs
- Customer Outreach and Education Initiative
- Paperless Billing Incentive
- LED Streetlighting
- Alternate Fuel Vehicles
- Collaborative Research & Development for Gas Technologies

Current Economic Development Program and Results

- Portfolio of 19 programs with annual funding of \$9.1 million
 - Help customers solve energy issues, improve productivity, efficiency and viability
 - Promote sustainable "smart" growth by redeveloping vacant buildings, Brownfield sites, and key urban centers
 - Facilitate regional growth through renewable energy technologies
 - Partner with state, regional and local economic development organizations
- Since 2003, this partnership has resulted in:
 - 700 economic development grants worth \$50 million+
 - 19,000 jobs in National Grid served communities
 - Generated over \$2 billion in new capital investment
 - \$6M Emergency Economic Development Grant Program for Hurricane Irene/Lee regions

Economic Development Expansion Proposal

- Enhance Economic Development Programs
 - Increase funding for our electric grant programs by \$2 million to \$11 million annually to respond to increasing demand
 - Modify recovery mechanism such that over or under recovery of expenditures are deferred
 - Creation of 2 new gas programs totaling \$1 million
 - Gas Capital Investment Incentive to help offset customer costs for natural gas infrastructure upgrades to accommodate a business expansion or new construction
 - Sustainable Natural Gas and Economic Development, to promote sustainable gas and clean transportation technologies



Customer Outreach and Education

- Proposal to enhance customer outreach and education related to safety, storm preparedness, the benefits of natural gas and conversion assistance, billing information and financial assistance
- JD Powers' research indicates that National Grid ranks below its peers in key communication metrics, including customer recall of utility outreach and education
- Broaden the channels of outreach and education to include digital channels and social media as well as radio, outdoor and newspaper advertising
 - New channels will enable us to reach more customers and to education them more effectively
- More effective outreach and education will improve customer satisfaction
- \$1.4 million incremental cost

Paperless Billing Incentive

- Incentive to encourage customers to participate in electronic billing
- Customers electing a paperless bill would receive a \$.40 credit on their bill reflective of the difference between cost of generating a paper bill and issuing an electronic bill in its place
 - Credit based on the cost of envelopes, paper, postage and processing less the cost of issuing an electronic bill
 - Revenue-neutral cost savings passed to customers

LED Streetlighting

- Proposal to offer energy only LED option within Street Lighting Tariff
 - Unmetered, Customer Owned, Customer Maintained Equipment
 - Based on volumetric charges for specific equipment
- Immediate response to customer request for LED Streetlight
- Customers choose from extensive list of equipment
- The Company has commissioned Clarkson University to conduct an LED roadway luminaire performance testing program to evaluate the effects on distinct operating characteristics when exposed to extreme conditions experienced when connected to an electric distribution system
Alternative Fuel Vehicles

- Proposal to support the development of customer owned alternative fuel vehicle fueling stations
 - Consistent with the New York State Energy Plan, the National Energy Policy Act, the Clean Air Act, and the Federal Environmental Protection Agency regulations to lessen dependence on imported fuels
- \$1.5 million from annual gas base rates for customer-owned CNG fueling stations for the lesser of \$250,000 or 50% of costs
- \$200,000 from electric base rates for customer-owned EV charging stations lower of \$4,000 or 50% of project costs
- Company would require base level of meter for EVs, to gather data over the long term



Collaborative R&D for Gas Technology

- Modify existing Millennium Fund to include gas R&D through industry collaborative called Utilization Technology Development
- Mid to long-term customer-facing gas technology R&D, including appliance technology and gas renewable energy
- Projected low gas commodity prices make gas end-use products favorable for customers
- No additional funding; Company only proposes to expand the types of gas-related R&D projects that it would be authorized to support with funds from the R&D surcharge

- Book 6
 - E-SSCP-12: Proposed 2013 Electric Economic Development Grant Program
 - E-SSCP-13: Proposed 2013 Gas Economic Development Grant Program
- Book 7
 - E-SSCP-15: Costs of the Proposed Customer Outreach and Education Initiative
- Book 22
 - E-RDP-7: Merchant Function Charge and Other Miscellaneous Charges
 - Schedule 3.1 (Paperless Billing)
 - E-RDP-8: Lighting Tariff Rate Design

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Electric Rate Design

Bill Stability... Investment and Improved Reliability ... and Enhanced Customer and Community Presence

Electric Rate Design Panel

- Embedded Cost of Service Study
- Revenue Allocation and Rate Design
- Merchant Function Charge (MFC)
- Bill Impacts
- Revenue Decoupling Mechanism (RDM)
- NYPA Products
- Residential Time of Use
- Miscellaneous Charges
- Billing Backout Credit

Embedded Cost of Service Study

- No major changes to allocators
- SC-3 Transmission and Subtransmission VDL's combined
- SC-3A Secondary and Primary VDL's combined
- Load associated with NYPA Load is included in the ECOSS
- Updated special studies
- Customer demand split
 - Secondary distribution: customer 61%/demand 39%
 - Primary distribution: customer 50%/demand 50% per last case
- Revenues outside of the ECOSS:
 - Commodity, Legacy Transition Charge (LTC), NYPA Hydro Benefit, Electricity Supply Reconciliation Mechanism (ESRM), System Benefits Charge (SBC), Renewable Portfolio Standards (RPS), Revenue Decoupling Mechanism (RDM), Gross Receipts Tax (GRT) and 18a Assessment.

Rate of Return at Present Rates

	Rate of Return
SC-1	4.6%
SC-1C	9.6%
SC-2	9.1%
SC-2D	6.3%
SC-3 Secondary	6.2%
SC-3 Primary	6.9%
SC-3 Sub Tran/Transmission	5.0%
SC-3A Secondary/Primary	4.6%
SC-3A Sub Transmission	5.3%
SC-3A Transmission	3.3%
Outdoor Lighting	10.4%
System Average	5.5%



Revenue Allocation and Rate Design

Revenue Allocation:

- Company used as guidance the revenue allocation approach presented in the Joint Proposal in O&R's Case 11-E-0408.
 - Move each class one-third of the way toward eliminating its surplus or deficiency compared to the system average return at present rates.
 - Allocate increase in revenue across all rate classes in proportion to the realigned revenue.
 - Mitigate any extreme rate impacts by adjusting class revenues so that no class has an increase greater than 1.5 times the system average.
 - Ensure that no class is further from unity (based on relative rate of return) than at present rate revenue.
- Rate Design:
 - Produce T&D revenue for each rate class as determined in the revenue allocation process.
 - Produce total bills for customers and revenues for the Company that are reasonable stable and predictable.
 - Mitigate extreme rate impacts on customer subgroups.
 - Customer Charge change for Residential from \$16.21 to \$17.00.

Merchant Function Charge

- 4 Components
 - Commodity-related Credit and Collections
 - Commodity-related Uncollectible Account Expense
 - Electric Supply Procurement Costs
 - Working Capital for Electric Supply
- Changes from prior methodology
 - Credit and Collections inclusion of POR customers' kWh in calculation of credit and collections per kWh rate
 - Proposing to exempt SC-12 customers from both the credit and collections and uncollectible components of the MFC.
 - Move from a calendar year reconciliation to a fiscal year (April 1 through March 31).
 - In transition to fiscal year, will need to reconcile January 1, 2013 through March 31, 2013

Summary of Revenue Allocation

	Revenue at Present Rates	Rate Request	% of Rate Request	Revenue at Proposed Rates	% Increase
SC-1	\$ 768	\$ 77	60%	\$ 854	11%
SC-1C	13	1	1%	14	4%
SC-2	60	6	5%	63	5%
SC-2D	167	16	12%	182	8%
SC-3 Secondary	116	11	9%	126	9%
SC-3 Primary	39	4	3%	42	7%
SC-3 Sub Tran/Transmission	6	1	1%	6	11%
SC-3A Secondary/Primary	24	2	2%	27	12%
SC-3A Sub Transmission	14	1	1%	15	11%
SC-3A Transmission	39	4	3%	45	14%
Outdoor Lighting	50	5	4%	51	3%
TOTAL	\$1,297	\$ 128	100%	\$1,425	9.88%

Bill Impacts

	Excluding Impact of Deferral Elimination		Including Impact of Deferral Elimination			
Typical Customer	Delivery	Commodity	% Total Bill Impact	Delivery	Commodity	% Total Bill Impact
SC-1	10.5%	(0.1%)	6.1%	(3.2%)	(0.1%)	(2.1%)
600 kWh						
SC-2ND	6.4%	(0.1%)	3.6%	(8.4%)	(0.1%)	(5.2%)
1,500 kWh						
SC-2D	6.7%	(0.1%)	3.2%	(6.1%)	(0.1%)	(3.3%)
7,200 kWh, 25 KW						
SC-3 Primary	5.1%	(0.1%)	1.8%	(5.0%)	(0.1%)	(2.0%)
216,000 kWh, 500 KW						
SC-3A Transmission	5.2%	(0.1%)	1.2%	(1.5%)	(0.1%)	(0.5%)
2,304,000 kWh, 4,000 KW, 40% Peak Hrs. Use						

Revenue Decoupling Mechanism (RDM)

- Proposed changes to current mechanism
 - Include SC-12 customers that do not receive a delivery discount under their contracts in the RDM
 - Move from a calendar year reconciliation to a fiscal year (April 1 through March 31).
 - In transition to fiscal year, will need to reconcile January 1, 2013 through March 31, 2013.

Delivery of NYPA Products

- Aspects of Replacement and Expansion (R&E) Power Phase-In Agreement reflected in revenue forecast
 - Eliminate 11-month maximum used in the Load Factor Sharing billing methodology
 - Base billing on customers' metered demand instead of their contract demand
 - Loss factors will equal standard tariff loss factors
 - Total load, including NYPA load will be used in determining parent service classification
- Delivery of NYPA products are included in ECOSS, Revenue Allocation and Rate Design
- Proposing to eliminate historic demand for customers that have only "new" R&E allocations



Residential Time of Use Offering

- Proposal to offer time-of-use commodity pricing for interested SC-1 customer.
- Currently, SC-1 customers would need to be reclassified to SC-1C to receive timeof-use commodity pricing.
- Commodity time rating periods will be the same as the approved SC-2ND rating periods:
 - On Peak: 12:00 p.m. to 8:00 p.m. weekdays except holidays
 - Shoulder Peak: 7:00 a.m. to 12:00 p.m. and 8:00 p.m. to 10:00 p.m. weekdays except holidays.
 - Off Peak: 10:00 p.m. to 7:00 a.m. weekdays and all hours on weekends and holidays.
- Incremental customer charge of \$3.36



Changes to Miscellaneous Charges

Proposed update to re-establishment or disconnection service (Rule 9)

 Proposed update to fee associated with disconnection initiated by an Energy Service Company (ESCo) for non-payment of commodity charges (Rule 14.8.6)

Update incremental customer charge associated with communications costs for customers enrolled in the Emergency Demand Response Program and Day Ahead Demand Response (Rule 34.4 and 34.5)

Billing Backout Credit

- Updated study resulted in a revised fee of \$1.24 (from \$1.15)
- Change in the way the ESCo is charged and the customer is credited for Company's billing services:
- Customers that participate in the ESCo POR program and choose to receive their bill electronically will receive both the billing backout credit and the paperless billing credit.

Type of Customer	Type of ESCo Service	ESCo Billing Charge	Customer Backout Credit
Electric Only	ESCo Supplies Electric	\$1.24	\$1.24
Gas Only	ESCo Supplies Gas	\$1.24	\$1.24
Dual Gas & Electric	ESCo Supplies Electric	\$.62	\$.62
Dual Gas & Electric	ESCo Supplies Gas	\$.62	\$.62

- Book 20
 - Testimony
 - E-RDP-1: ECOSS
- Book 21
 - E-RDP-2: Development of Allocators ECOSS
 - E-RDP-3: Internal and External Allocator Values
 - E-RDP-4: Historic and Forecast Delivery Revenue
 - E-RDP-5: Rate Year Revenue Allocation
- Book 22
 - E-RDP-6: Electricity Tariff Rate Design
 - Schedule 1: Allocation of proposed Electric Revenue
 - Schedule 2: Electric Tariff Rate Design
 - Schedule 3: Development of SC-7 Rates
 - Schedule 4: Comparison of Rates

- Book 22 (continued)
 - E-RDP-6 (continued)
 - Schedule 5: Summary Bill Impacts
 - Schedule 6: Typical Bill Impacts
 - Schedule 7: Summary Bill Impacts reflecting elimination of Deferral Recovery Surcharge
 - Schedule 8: Typical Bill Impacts reflecting elimination of Deferral Recovery Surcharge
 - Schedule 9: Customer Bill Impacts
 - Schedule 10: Summary of Revenue & Unit Revenue Changes
 - Schedule 11: Billing Determinants
 - E-RDP-7: Merchant Function Charge and Other Miscellaneous Charges
 - E-RDP-8: Lighting Tariff Rate Design

- Book 23
 - E-RDP-9: Transmission Revenue Adjustment Mechanism
 - E-RDP-10: Marginal Cost of Service Study
 - E-RDP-11: Marginal Cost Rate Design
 - E-RDP-12: Resumes
 - E-RDP-13: Workpapers

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Gas Rate Design

Bill Stability... Investment and Improved Reliability ... and Enhanced Customer and Community Presence

Embedded Cost of Service Study (ECOSS)

- No major changes to allocators
 - ECOSS is performed on delivery revenues
 - Excludes revenue tracked revenues (Gas Costs, System Benefits Charge, Gross Receipts Tax, 18-A Surcharge)
- Updated special studies
 - No update to zero-intercept study presented in last Gas Rate Case due to unavailability of main costs by size, type and vintage
 - Main Investment: 45.5% Customer Related

54.5% Demand Related

Updated costs of services and meters

Revenue Allocation

- Used same revenue allocation approach from last Gas Rate Case
- Moved rates incrementally towards the full revenue requirements to approach equalized rates of return and to mitigate rate impacts to customers.
- Recognized that rates of return differ significantly among service classes

Rates of Return at Present Rates

SC-1	Residential Non-Heat	2.1%
SC-1	Residential Heat	4.4%
SC-2	Resid, Comm & Ind	17.1%
SC-3	Large Commercial & Industria	19.1%
SC-7	Small Transportation	10.5%
SC-5	Medium Transportation	4.4%
SC-8	Large Transportation	-0.1%
SC-12 & 13	Distributed Generation	15.0%

System Average 6.	1%
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Revenue Allocation (Cont'd)

Allocated all other service classes the rate request based on the ratio of the service class revenue requirement to the full revenue requirements.

Illustrative Example

	Revenues	ECOS Revenue	Allocator Factor	
	@ Current Rates	Requirement	for Rate Request	
Residential	\$90	\$120	60%	
Commercial	\$60	\$50	25%	
Industrial	<u>\$30</u>	<u>\$30</u>	<u>15%</u>	
	\$180	\$200	100%	

Allocation of Rate Request

	Requested	Rate	Rate
	Revenue	Increase	Increase %
Residential	\$102	\$12	13%
Commercial	\$65	\$5	8%
Industrial	<u>\$33</u>	<u>\$3</u>	10%
	\$200	\$20	

Summary of Revenue Allocation to Firm Service Classes (\$ millions)

				Revenue @	
	Revenue @	Allocated Rate	% of Total	Proposed	
	Present Rates	Request	Rate Request	Rates	% Increase
SC-1	\$240.6	\$19.2	79.8%	\$259.8	8.0%
SC-2	\$54.0	\$2.7	11.3%	\$56.8	5.0%
SC-3	\$0.7	\$0.1	0.5%	\$0.8	17.8%
SC-5	\$5.4	\$0.4	1.7%	\$5.8	7.5%
SC-7	\$9.0	\$0.5	2.0%	\$9.5	5.5%
SC-8	\$11.3	\$1.1	4.5%	\$12.4	9.7%
SC-12 & SC-13	\$0.1	\$0.0	0.0%	\$0.1	1.2%
NYSEG	\$0.3	\$0.0	0.1%	\$0.3	7.6%
Total	\$321.3	\$24.1	100%	\$345.3	7.5%

Customer Charges

- Increased the proportion of customer related charges recovered through customer charges and reduced the amount collected in usage blocks.
 - Ensures higher volume customers do not pay more than their fair share of customer related costs and lower volume customers do not pay less.
 - ECOSS study served as benchmark
- SC 1 Residential Heating and Non-Heating Customers
 - Served under same service class but the higher usage residential heating customers subsidize the lower usage non-heating customers.
 - The Company proposes to allocate proportionately more costs to non-heating by:
 - Increasing the customer charge by \$2.50
 - Allocating remainder of rate increase to first usage block (3-50 therms)
 - Bill Impact to Low Income Customers is Mitigated The Company proposes to increase the discount by \$2.50 from \$7.50 to \$10.00 per bill



Merchant Function Charge (MFC)

Structure

- Current: Includes gas supply procurement expenses, credit and collection expenses, uncollectible expenses and gas storage return requirement
- Proposal: Modify to include return requirement on gas working capital based on lead-lag study and pre-tax weighted average cost of capital similar to electric as established in the last electric rate case
- Modify Gas Storage Return Requirement
 - Current: Gas storage return requirement is not reflective of actual carry costs. Current mechanism uses volume targets multiplied by actual monthly inventory prices.
 - Proposal: Use actual storage inventory balances consistent with KEDNY and KEDLI.
- Expand Participation
 - Current: Applicable to all firm sales classes except SC 3 large commercial and industrial
 - **Proposal:** Charge MFC to SC 3 large commercial and industrial

Monthly Bill Impacts

Average Customer	Rate Year			
	Delivery	Commodity	Total Bill	
SC 1 Small Residential -				
1,000 therms per yr	2.7%	2.0%	2.3%	
SC 2 Large Residential -				
3,180 therms per yr	0.8%	1.1%	1.0%	
SC 2 Small Commercial -				
3,940 therms per yr	0.5%	1.1%	0.8%	
SC 2 Small Industrial -				
14,580 therms per yr	-1.1%	1.1%	0.2%	
SC 3 Large Commercial & Industrial -				
108,940 therms per yr	-2.4%	4.5%	2.7%	
SC 7 Small Transportation -				
83,900 therms per yr	0.8%		0.8%	
SC 5 Medium Transportation -				
437,140 therms per yr	2.5%		2.5%	
SC 8 Large Transportation -				
3,215,330 therms per yr	3.6%		3.6%	



Lost & Unaccounted for (LAUF) Gas

Modify LAUF mechanism

- Proposed LAUF target = 1.841% based on the 5-year mean LAUF %
- Consistent with Staff's White Paper Recommendations
- Expands participation to include firm transportation customers in addition to firm sales customers

Other Proposed Tariff Changes

Terminate SC 4 Interruptible Sales Service

- Customers no longer on service
- Grandfathered service that has not been available to new customers since June 1, 1996

Eliminate Ratchet Usage Provision for SC 3 Large Commercial and Industrial Sales

Will align SC 3 sales with the corresponding firm transportation services which do not contain usage ratchets for delivery charges

Net Revenue Sharing Mechanism

- Expand participation to include all firm sales and firm transportation service classes as the most equitable allocation of delivery revenues
- Update targets to exclude SC 4 Interruptible Sales Service

- G-RDP-1: Historic Test Year Gas Revenues
- G-RDP-2: Rate Year Gas Revenue Forecast
- G-RDP-3: Embedded Cost of Service Study ("ECOSS")
- G-RDP-4: Proposed Revenue Allocation, Rate Design and Customer Bill Impacts
- G-RDP-5: Lost and Unaccounted for Gas ("LAUF") Mechanism
- G-RDP-6: Proposed Merchant Function Charges ("MFC")
- G-RDP-7: Proposed Revenue Decoupling Mechanism ("RDM")
- G-RDP-8: Marginal Cost of Service Study ("MCOSS")
- G-RDP-9: Resumes of Gas Rates Panel
- G-RDP-10: Contains Supporting Workpapers for Exhibits

- G-RDP-1: Historic Test Year Gas Revenues
- G-RDP-2: Rate Year Gas Revenue Forecast
 - Schedule 1: Annual Forecast, by Service Class, of Base Delivery Revenue for the Rate Year, Data Year 1 and Data Year 2
 - Schedule 2: Proposed Changes to Miscellaneous Revenues and Other Gas Revenue
- G-RDP-3: Embedded Cost of Service Study ("ECOSS")
 - Schedule 1: Summarizes the methodology for the ECOSS
 - Schedule 2: Summary by SC of throughput, total revenue, delivery revenue, overall rate of return & unitized rate of return
 - Schedule 3: Summarize the Customer Care Clearing Account
 - Schedule 4: Results of the functionalization step of the ECOSS
 - Schedule 5: Set forth the unit cost analysis
 - Schedule 6: Summary of the results of the allocation step of the ECOSS
 - Schedule 7: Present the allocation factors for the Total Distribution Revenue Requirements
 - Schedule 8: Present results of the classification step of the ECOSS
 - Schedule 9: Present results of the allocation step of the ECOSS

- G-RDP-4: Proposed Revenue Allocation, Rate Design and Customer Bill Impacts
 - Schedule 1: Summarize the effects of the proposed revenue allocation & rate design
 - Schedule 2: Details the specific rate changes for each rate block for each class
 - Schedule 3: Allocation of Proposed Gas Revenues
 - Schedule 4: Monthly bill comparisons for SC 1, 2, 3, 5, 7, 8, 12 & 13
 - Schedule 5: Annual bill comparisons for a typical SC 1 Residential Heating Customer
- G-RDP-5: Lost and Unaccounted for Gas ("LAUF") Mechanism
- G-RDP-6: Proposed Merchant Function Charges ("MFC")
- G-RDP-7: Proposed Revenue Decoupling Mechanism ("RDM")
- G-RDP-8: Marginal Cost of Service Study ("MCOSS")
 - Schedule 1: Describes the calculation of the investment in mains
 - Schedule 2: Presents the average meter and service investment by MCOS summary rate class
 - Schedule 3: Describes the calculation of the weighted average customer
 - Schedule 4: Describes the calculation of the marginal demand-related distribution costs

- Schedule 5: Describes the calculation of the marginal customer-related distribution costs
- Schedule 6: Calculation of the Excelsior Jobs Program ("EJP") rate
- G-RDP-9: Resumes of Gas Rates Panel
- G-RDP-10: Supporting Workpapers for Exhibits