## STATE OF NEW YORK PUBLIC SERVICE COMMISSION

CASE 11-M-0034 - Proceeding on Motion of the Commission to Commence a Review and Evaluation of the Treatment of the State's Regulated Utilities' Site Investigation and Remediation (SIR) Costs.

#### NOTICE FOR\_FILING EXCEPTIONS

(Issued November 3, 2011)

Attached is the Recommended Decision of Administrative Law Judge Eleanor Stein in this proceeding. Briefs on exceptions are due electronically to the Secretary at secretary@dps.state.ny.us and to all active parties by 4:00 p.m. on Wednesday, November 23, 2011.

Briefs opposing exceptions are due by 4:00 p.m. on Thursday, December 8, 2011, following the same procedures. The parties' briefs should adhere to the guidelines for filing documents with the Secretary (www.dps.state.ny.us).

JACLYN A. BRILLING Secretary

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RECOMMENDED DECISION

By

ELEANOR STEIN ADMINISTRATIVE LAW JUDGE

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#### ELEANOR STEIN, ADMINISTRATIVE LAW JUDGE:

#### I. <u>INTRODUCTION</u>

In the words of former New York State Chief Judge Judith S. Kaye, in a case concerning remediation of a manufactured gas plant (MGP) site, "[t]his case presents something of a time capsule in that nineteenth century technology polluting twentieth century properties will have significant twenty-first century financial ramifications." Manufactured gas plants grew up along the Hudson River and the Erie Canal, in New York City and on Long Island. Their abandoned sites are a palimpsest of the state's industrial revolution. In their time they housed an advanced technology to produce gas for commercial and residential usage, manufactured through processes employing coal as raw material. Long before the advent of environmental regulation, these facilities were superseded by transportable natural gas and by electricity. Even at the time the last MGP plant in New York closed – the Bay Shore plant, in 1972 – there was little or no awareness that their footprint posed health concerns to the communities where they were located. These manufactured gas plants generated by-products, principally coal tar and oils, containing what are now recognized as hazardous substances. Most of these sites were owned by predecessors of today's regulated local distribution utility companies.

Troubled by the increase in the costs of this pollution and its clean-up, and the concomitant growing impact on ratepayers' bills, the Public Service Commission commenced

<sup>&</sup>lt;sup>1</sup> Consolidated Edison v. Allstate Insurance, 98 N.Y.2d 208, 215 (2002).

See New York State Electric & Gas Corp. v. FirstEnergy Corp., \_\_F. Supp 3d \_\_ (N.D.N.Y.), Slip Opinion (July 11, 2011), at 1, Attachment to NYSEG Letter to Secretary Brilling (dated August 4, 2011).

this proceeding in order to examine, on a generic basis, the treatment of costs for utilities' site investigation and remediation (SIR) of hazardous waste, primarily of MGP sites.<sup>3</sup>

At its sessions held January 20 and February 17, 2011, the Commission expressed concern at the magnitude of these costs. In the last twenty years, in all but a handful of cases, these expenses have been borne entirely by ratepayers. What had long been viewed in New York as a utility problem had become a public problem. Alternatives discussed included spreading these costs more broadly over the state's population, to utility shareholders as well as ratepayers, or by a different allocation among ratepayers. The objective of this proceeding was to explore and assess alternative generic approaches. This was conceived of as a forward-looking undertaking, and no review of the past prudence of utility SIR was contemplated.

A key Commission concern was to ensure adequate cost control measures for site investigation and remediation to minimize ratepayer impact as much as possible. The authority for site investigation, consideration of alternatives, determination of scope, and adoption of final remediation plans is statutorily committed to the Department of Environmental Conservation and therefore these decisions are not at issue. Under consideration here is primarily whether the utilities exercise fiscal diligence in their negotiations and implementation of DEC remediation orders comparable to that of other industries or the State itself. In that context, relevant considerations include utility procedures for site remediation work, the competitiveness of their bidding process, utility attempts to recover remediation costs from insurance proceeds or third parties responsible for contamination, and other cost control measures. Also considered were measures to augment the reporting requirements and the scrutiny SIR costs receive in rate cases.

The Commission also tasked this proceeding with examining the current allocation of responsibility for SIR between electric and gas ratepayers, and between classes of each of these groups. To that end, this investigation was directed at ensuring that the ratepayer

Case 11-M-0034, *Site Investigation and Remediation*, Order Instituting Proceeding (issued February 18, 2011) (Instituting Order). New York's utilities are also responsible for site investigation and remediation of sites used for purposes other than the manufacture of gas. Examples are underground storage tanks, third party-owned sites to which utilities shipped hazardous substances for storage, or sites where oil, polychlorinated biphenyls (PCBs) or other hazardous substances were released (Con Edison Response to DPS IR-1 Response, at 1-2).

See New York State Environmental Conservation Law (ECL) §§3-0301(i), 27-1313 and 27-1313-3(a).

The Commission considered these concerns when it instituted Case 94-M-1016 in 1995, when the MGP SIR program was ten years old, utilities were responsible for 120 MGP sites and estimates of total costs over a 30-year period were between \$.5 billion and 2 billion. That proceeding was closed in 2003 without decision.

impact was fairly distributed. Also examined was the use of deferred recovery to cushion ratepayers against the full impact of SIR charges on current bills by spreading the costs over a period of years.

Finally, this case has considered whether the Commission should continue to decide these issues in individual rate cases, on the ground that the differences among companies warrant treatments customized to their particular circumstances, or should announce a generic policy treatment.

This exploration was conducted by the compilation of a record including voluminous factual background and policy submissions by utilities, Department of Public Service Staff (Staff), the New York State Department of Environmental Conservation (DEC), the New York State Department of State Utility Intervention Unit (DOS), Multiple Intervenors (MI), and the City of New York (NYC). It was furthered by the issuance of a Staff White Paper, a Technical Conference, and an extensive exchange of information and comments. The Commission has several options available to address its concerns about the burden on ratepayers; many options are supported by this record.

I recommend that, in lieu of issuing a policy statement, the Commission issue an order to close this phase of this inquiry, to draw public attention to the scale of the MGP problem and the growing concern about rising SIR costs, and to make more visible the scrutiny of the utility site investigation and remediation practices than is possible amid the conflicting priorities of rate cases. The Commission should adopt for all utilities the following practices with respect to SIR practices and costs, to provide uniformity across rate cases in the level and content of audits, reporting, and review: (1) annual reporting requirements; (2) independent audits; (3) the compilation and ongoing development of a set of best cost-control practices for MGP remediation; and (4) a rebuttable presumption that SIR bill impacts should not exceed 3% of delivery bills. In addition, the Commission should examine the effect of recovering SIR costs through a uniform percentage of delivery rates, across service classifications. These are all cost-constraint mechanisms that can be put in place generically and that should improve both the cost profile and the Commission comfort with the ultimate expenses recovered.

However, I recommend against a Commission declaration prescribing specific cost-sharing between ratepayers and shareholders. The Commission is best served by retaining the flexibility to tailor the rate treatment of SIR costs to the concrete conditions of each utility. The appropriate level of sharing or the wisdom of sharing at all varies with the financial health (or not) of the subject utility, the potential for downgrades or other adverse financial consequences of denying recovery for a portion of SIR costs, the importance of the SIR costs in the total revenue requirement and total customer bill, and many other utility- and case-specific factors.

Finally, a Commission order, like a policy statement, can also be a bully pulpit to raise awareness of the increasing scale of SIR costs and the seriousness of the financial, public health, and environmental problems for New Yorkers. It can surface these concerns so as to generate a broader discourse on available remedies not within the jurisdiction of the Commission, such as the inclusion of New York's MGP sites in the federal or state Superfund program, with an expansion of those budgets through bond acts or other measures to reallocate some responsibility from ratepayers to a wider base.

#### II. PROCEDURAL HISTORY

The Commission instituted this proceeding in February 2011, to examine on a statewide, generic basis the funding mechanisms supporting the Site Investigation and Remediation program, and to weigh whether ratepayers should continue to bear sole responsibility for the growing cost of remediation. The Commission sought the creation of a comprehensive record, including the implementation of utility SIR programs, cost controls currently in use and opportunities to improve them, the appropriate allocation of costs, and measures to minimize the impact of these costs on ratepayers.

The proceeding opened with a controversy about procedure. At a procedural conference noticed February 18, 2011 and held March 3, 2011, parties differed on the best process to employ in compiling the comprehensive record required by the Commission in the Instituting Order. A ruling issued March 8, 2011 provided parties an opportunity to present views on process issues.

Staff, MI, and DOS supported compilation of a White Paper by Staff, followed by initial and reply comments. Most utilities preferred a litigation procedure on the rate case model, with Staff testimony, followed by rebuttal testimony, an evidentiary hearing, two rounds of briefs, a Recommended Decision, briefs on exception, and a Commission decision, on the ground that allocation decisions should be based on sworn testimony and cross examination, in light of the potentially significant financial consequences to investors. The Department of Environmental Conservation also supported a formal evidentiary process, to best develop a full record, while National Fuel viewed such a process as necessary only if the case encompassed prudence review. A ruling established the procedure and schedule, concluding that, absent

Notice of Procedural Conference (issued February 18, 2011).

Most utilities appeared collectively. Consolidated Edison Company of New York, Inc. (Con Edison), Orange and Rockland Utilities, Inc. (Orange and Rockland), Central Hudson Gas & Electric Corporation (Central Hudson), New York State Electric & Gas Corporation (NYSEG) and Rochester Gas and Electric Corporation (RG&E) constituted the Joint Utilities. National Fuel Gas Distribution Corporation (National Fuel) appeared separately.

disputed issues of material fact, filed testimony and evidentiary hearings were unnecessary and that the broad policy gravamen of the Instituting Order was best effectuated with a more collaborative and inclusive process.<sup>8</sup>

On March 11, 2011, Staff served parties with 18 questions, some raising foundational issues of fact (DPS IRs 1-13), others calling for parties' positions on policy choices facing the Commission (DPS IRs 14-18). According to the Commission Rules of Procedure, parties responding to interrogatories must serve responses on all parties, but need not file their responses with the Office of the Secretary. It is left to advocates to determine what evidence is sufficiently relevant and probative to include in brief or rebuttal testimony and thereby place on the record. However in this case, absent testimony or a formal hearing, parties were required to file their responses to information requests with the Secretary to the Commission, ensuring the information would be included in the formal record of the proceeding.

On April 1, 2011, parties served their responses to the first 13 Staff questions. Four utilities – Con Edison, Orange and Rockland, Central Hudson, and National Grid – filed portions of their responses in confidential form and requested trade secret protection for the information concerning insurance and third-party recovery. No party opposed, and the information was granted trade secret protection.<sup>9</sup>

This compendium of information on the background, origins, investigation and remediation procedures, and costs, provided the basic factual foundation to move on to the next set of factual and policy inquiries. However, these inquiries spurred controversy. The Joint Utilities urged rescission of the utilities' obligation to respond to Staff questions 14, 17 and 18 and sought instead a more formal process, involving expert testimony and evidentiary hearings, on the rate recovery matters raised by these questions, rather than respond to a Staff's requests for proposals of alternative methods for cost allocation and other ratemaking issues. The utility group was ordered to respond to the Staff questions. <sup>10</sup>

The fruit of this information exchange was the Staff White Paper, issued June 24, 2011. On July 6, 2011 a Notice of Proposed Rulemaking pursuant to the State Administrative Procedure Act was published in the State Register. No public comments were received in response.

Further Ruling on Scope, Procedure, and Schedule (issued May 6, 2011).

Ruling on Trade Secret Protection (issued May 13, 2011). A second ruling granting an unopposed National Grid motion for trade secret protection of information concerning contractor rates was issued September 8, 2011.

Ruling on Requests for Suspension and Rescission (issued April 13, 2011).

The Notice of Proposed Rulemaking was #11-M-0034 SP1/27-11-00003.

On July 12, 2011 a Technical Conference was held and a stenographic record consisting of 226 pages was compiled. Presentations were offered by Staff; DEC; MI and DOS jointly; and the utility group, collectively. Also participating, but not presenting, were National Fuel, New York City, and the Long Island Power Authority (LIPA). Staff briefly reviewed the White Paper, explaining that its purpose was not to proffer recommendations, but to explore various options to address Commission concerns. A presentation by DEC highlighted the technical complexities of the SIR process. Multiple Intervenors and DOS presented arguments through counsel. The utility panel consisted of the Con Edison Vice President for environmental health and safety, the Con Edison Vice President and Controller, and two consultants, from Gnarus Advisors and Concentric Associates.

In the course of the technical conference the parties and I identified further questions or additional necessary information, and these were subsequently circulated to the parties. Utilities, Staff and DEC provided responses. In addition, I propounded several follow-up questions, including a request to DEC to file an inventory of the MGP sites located in urban residential communities and those in potential environmental justice communities; and a request to Staff to file estimates of SIR bill impacts from the year 2012 on, assuming full recovery.

Initial and reply comments on the White Paper were filed on August 4, 2011, and September 9, 2011, following several requests for extensions including a final such request based on the exigencies of utility repairs and service restorations following the recent severe storms.

#### III. BACKGROUND

#### A. The Legal Background

The federal and state statutory schemes evince a congressional and New York State legislative allocation of the social costs of hazardous waste clean-up. Congress, in enacting the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) in 1980, responded to the toxic releases affecting thousands of New Yorkers at Love Canal, which revealed the lack of a statutory scheme to hold the responsible parties accountable. The objective was to spur prompt and voluntary clean-ups of hazardous waste sites and to make the parties responsible for the contamination foot the bill. 13

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<sup>42</sup> U.S.C. § 9601 *et seq*. (as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA)).

Michael Hernandez, Cost Recovery or Contribution? Resolving the Controversy over CERCLA Claims Brought by Potentially Responsible Parties, 21 Harvard Law Rev. 83, 86 (1997).

New York State's remediation laws mirror the federal program in most important respects, and like the federal laws place the primary obligation on the potentially responsible party (PRP). Under state law, in contrast to federal government action under the federal scheme, state government steps in itself to remediate only under limited circumstances, such as an immediate health or safety hazard or an inability to locate the potentially responsible party.<sup>14</sup>

This legal allocation of social costs protects the taxpayer by placing the financial burden squarely on the shoulders of the potentially responsible parties. While other corporate potentially responsible parties may have the opportunity to pass at least some of these costs on to their customers, they are presumably subject to market constraints. In the case of utilities, the policy of 100% rate recovery of prudent SIR costs in effect places the MGP burden on the public, but on ratepayers rather than taxpayers. Mitigating this allocation of the burden on ratepayers are provisions for recovery from other potentially responsible parties, the opportunity to recoup costs through insurance awards, and the sale of remediated properties.

At the federal level, clean-up of sites contaminated with hazardous waste is authorized under CERCLA §104. <sup>15</sup> The EPA is authorized to enter sites where hazardous substances have been released into the environment, and to respond to any threats posed to human health and welfare or to the environment. A response may include a removal action, a remediation, or both. A removal generally refers to measures taken shortly after a release or threat of release of hazardous substances to mitigate the possibility of immediate harm. Removal measures may include securing the site with fencing, removing containers of hazardous waste from the site, providing a safe water supply, and even evacuating residents. <sup>16</sup> A remediation refers to the undertaking of a long-term, permanent remedy for the site, to prevent future harm to people or the environment. These measures may include removal of contaminated soils, treatment of contaminated groundwater, construction of confinement devices such as fences, ditches or dykes, and installation of monitoring devices. <sup>17</sup>

Under §103(c) of CERCLA, persons or entities who own or operate, or who previously owned or operated a site where hazardous wastes are stored are required to notify EPA of the existence of the site. The nature and extent of hazardous wastes found there must be reported, as well as any releases or suspected or threatened releases. All reported and otherwise discovered sites are ranked and compiled into a National Priorities List 18 to be revised at least

<sup>&</sup>lt;sup>14</sup> ECL §27-1313(5).

<sup>&</sup>lt;sup>15</sup> 42 U.S.C. § 9604.

<sup>&</sup>lt;sup>16</sup> CERCLA §101(23), 42 U.S.C. §9601(23).

<sup>&</sup>lt;sup>17</sup> CERCLA §101(24), 42 U.S.C. §9601(24).

See http://www.epa.gov/superfund/sites/npl.

annually. Each state is also required to submit to the federal government its priority list of sites for clean-up, and at least one site from each state is to be included on the federal list of one hundred highest priority "response targets." Currently, New York has one utility MGP site on the National Priorities List.<sup>19</sup>

When EPA undertakes a response to a release of hazardous substances, it draws on the Superfund. It may subsequently sue to recover these costs from potentially responsible parties (PRPs). Both federal and state law cast a wide net to encompass not only current site owners or operators, but many others. Pursuant to CERCLA §107(a), for instance, PRPs may include current owners or operators of a facility; prior owners or operators who owned or operated the site at the time hazardous substances were disposed of there; persons who arranged for the disposal of hazardous substances, or who transported hazardous substances and selected the site for disposal. Potentially responsible parties may be liable for all removal and remediation costs incurred by the federal government, response costs incurred by any other person, and natural resource damages. The statute imposes strict liability: no finding of fault is required to hold a PRP liable. PRPs themselves may seek contributions from each other.

New York State's program parallels CERCLA for purposes of identifying and remediating sites contaminated with hazardous wastes. Initially created in 1979, the state Superfund was later expanded, in 1996 funded by a State environmental bond act, and in 2003, expanded through the New York State Superfund and Brownfield Reform Act. <sup>23</sup> The program is under the authority of and implemented by DEC, in concert with the New York State Department of Health.

The State Superfund diverges somewhat from the federal program. First, where a PRP of a contaminated site can be located, DEC is required to take reasonable measures to get

CERCLA §105(a), 42 U.S.C. §9605(a). The site identified by each state must be "the facility designated . . . as presenting the greatest danger to public health or welfare or the environment among the known facilities in such State." The only New York MGP site on the National Priorities List of Superfund sites is a Niagara Mohawk MGP site in Saratoga

County.

See, e.g., Burlington Northern & Santa Fe Ry. Co. v. United States, 129 S.Ct. 1870 (2009).

<sup>&</sup>lt;sup>20</sup> 42 U.S.C. 9607(a).

<sup>&</sup>lt;sup>22</sup> 42 U.S.C. §§ 9607(a) (4) (B).

The State Superfund Program consists of the Hazardous Waste Fund (State Finance Law §97-b) and Environmental Conservation Law (ECL) article 27, title 13, Inactive Hazardous Waste Disposal Sites. Implementing regulations are authorized by ECL §27-1315 and are found at 6 NYCRR part 375, General Remedial Program Requirements.

the PRP to remediate.<sup>24</sup> DEC may itself undertake the clean-up only where a potentially responsible party cannot be located or fails to comply, there is a significant threat to public health or the environment exists, or a DEC-led remedy is determined to be most cost-effective. <sup>25</sup> By contrast, CERCLA authorizes EPA to undertake response measures in the first instance, then sue for cost recovery at some time thereafter. Second, the New York ECL does not establish a unique statutory cause of action for the recovery of costs. The State or any other party may attempt to recover costs in a common-law nuisance action or through CERCLA.

#### B. The Factual Background

#### 1. The History of Manufactured Gas in New York

Manufactured gas technology began in New York with a New York City facility converting whale oil into gas in the early 19<sup>th</sup> century. Used primarily for street lighting in its early years, by the end of that century manufactured gas was widely used for lighting, heating, and cooking. The plants were located generally in cities or towns, on rivers or shorelines, and near light industrial and residential property. The manufactured gas infrastructure expanded, while storage systems made manufactured gas widely available. Most of these facilities were owned and operated by the state's gas utilities.<sup>26</sup>

The state produced roughly 30% of the nation's manufactured gas between 1880 and 1950.<sup>27</sup> Our state (along with Massachusetts) also had the greatest number of large-scale sites in the country, producing more than three times the volume of manufactured gas than the nearest states, Pennsylvania and New Jersey.<sup>28</sup>

Manufactured gas was rendered obsolete by the introduction of a modern distribution system for natural gas, by the construction of interstate gas pipelines bringing Midwest and Southwest natural gas to the Northeast, and by the development of modern electric transmission and distribution systems. By 1972 the last MGP in New York was shuttered.<sup>29</sup> The

New York State Finance Law §97-b(4).

<sup>&</sup>lt;sup>25</sup> ECL §27-1313(5).

DEC, Responses to DPS IRs 1-13, Exhibit B, New York State's Approach to the Remediation of Former Manufactured Gas Plant Sites, at 1.

Robert Eng, Radian Corporation, *Survey of Town Gas and By-Product Production and Locations in the U.S. (1880-1950)*, EPA Report No. EPA/600/7-85/004, summarized in NARUC report *Manufactured Gas Plant (MGP) Questions*, at http://www.naruc.org/Publications/mgp.pdf, and available at http://nepis.epa.gov (NARUC *MGP Questions*).

<sup>&</sup>lt;sup>28</sup> *Id*.

White Paper, at 5.

plants themselves were often demolished. However, little or no action was taken at the sites of these plants to eliminate or contain their contaminated foundations, ancillary structures, soil, or groundwater. Many of the sites were sold, and their core structures and equipment removed. Remaining are other structures on the site, parking lots, and other facilities. The sites tended to be valuable urban properties, often on waterfront, and over the years many were sold and rebuilt for residential, commercial or industrial use. As a result, most New York MGP sites today are no longer owned by utilities.

#### 2. <u>Inventory of Current Utility MGP Sites</u>

New York has a huge share of the nation's MGP sites. According to a 1985 U.S. EPA report, approximately 1,500 MGP sites were identified in the U.S. The EPA estimates that between 1880 and 1950, New York had the largest number of identified sites (156) of any state in the country, with a comparable number (138) in Pennsylvania, and far fewer in remaining states. An inventory of New York MGP sites for which utilities are responsible was submitted by DEC, and reconciled with utility records following the Technical Conference. Today there are 221 utility-related sites, out of roughly 300 sites where manufactured gas was produced. Of these sites, the majority today are no longer owned by utilities, although utility-operated sites are the most significant, by virtue of their large size. In addition, 28 additional non-utility MGP sites were identified by DEC. DEC believes that most MGP sites have been identified; however, additional sites could be identified by the public, utilities' research, and DEC investigation. Niagara Mohawk believes additional upstate sites may be found, while the other utilities consider this unlikely in their territories.

The current tally of sites, broken down by utility responsibility, shows Niagara Mohawk with 54, Con Edison with 51, KEDNY and KEDLI with a total of 43, NYSEG with 38, Rochester Gas & Electric with 11, National Fuel with 10, and Central Hudson and Orange and Rockland with 7 each.<sup>32</sup>

DEC's inventory recognized 221 identified MGP sites. This inventory is attached as Appendix A. Reconciliation of the DEC and utility site lists revealed that 12 KEDLI sites were included by the utility but not by DEC, as these were Hortonspheres – gas holding tanks – rather than manufacturing facilities. Although the remediation of these sites receives the same rate treatment as other facilities, they are not included in the inventory for purposes of this Recommended Decision, to conform to the DEC criteria. *See* DEC Response to ALJ questions (July 22, 2011).

White Paper, at 9.

White Paper, at 8.

Today 134 of these sites are located in urban residential communities; 67 are in potential environmental justice areas.<sup>33</sup> While investigation and remediation have begun or are scheduled at 194 sites, at least some remediation remains to be done at roughly 80% of the identified sites. Remediation is complete at 25 utility sites and DEC anticipates that the entire SIR Program should be complete in approximately 10 years, with the Long Island sites reaching completion within two and RG&E by 2018.<sup>34</sup>

#### 3. The Hazards of MGP Sites

The volume of gas manufactured remains the best proxy to measure the amount of contamination resulting from waste products of MGPs. Indeed, New York produced by far the greatest amount of coal tar compared to other states, 2.3 million gallons (more than three times the amount produced by New Jersey, the next highest). The size of the sites and the remediation costs in New York, therefore, present a far larger problem than in other states, making state-by-state comparison less useful than might appear.

The by-products of the gas manufacturing process included a number of substances now known to be both resistant to decay and probably carcinogenic or in other ways dangerous to human health and the environment. Among these are coal tar, a dense, oily liquid condensed out of gas during the production process, and water gas tar, less viscous and more mobile, derived from liquid petroleum products. Both tars contain, among other compounds, BTEX (benzene, toluene, ethylbenzene, and xylene), a group of toxic substances classified by the EPA as a probable human carcinogen. Tars frequently contain sufficient benzene to be classified as hazardous waste. Coal tar produced from MGP processes and its constituents are now regarded as hazardous substances for purposes of federal and state environmental laws, and are the primary contaminants of concern at MGP sites. Benzene, for example, is number six on

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DEC Response to ALJ questions (August 16, 2011). For the purpose of responding to these questions DEC, in consultation with the utilities, defined presence in an urban residential area as within 100 yards of a 2000 Census urban block group residential parcel, and overlaid these results on its inventory of potential environmental justice areas. *See* Appendix B, Department of Environmental Conservation Urban Residential and Environmental Justice Sites Inventory.

DEC Responses to DPS IRs 1-13, (dated April 5, 2011), Exhibit B, at 7.

NARUC MGP Questions, relying on EPA publication, Survey of Town Gas and By-Product Production and Locations in the U.S. (1880 - 1950), by Robert Eng, Radian Corporation, for the U.S. Environmental Protection Agency, EPA Report No. EPA/600/7-85/004.

the EPA's 2007 CERCLA Priority List of Hazardous Substances, only less hazardous than arsenic, lead, mercury, vinyl chloride, and PCBs. <sup>36</sup>

Much of the contamination now being addressed is to some extent mobile. As a result, off-site contamination often results from the spread of these substances. For example, contamination has migrated off the MGP site in six of Orange and Rockland's seven sites, and in 11 of Con Edison's 51 sites to date.<sup>37</sup> Coal tar may travel through the water table, contaminating groundwater.<sup>38</sup>

Exposure to these substances results when people come in contact with waste products remaining on the surface, or when people dig into wastes or contaminated soils for construction or to plant gardens. With the migration of contaminants comes an overlay of other concerns: the increased health impacts on neighboring communities and on utility and contractor workers involved in clean-up; increased costs of cleaning up an expanded site where contamination typically reaches private or other non-utility property; and increased legal liability for injuries or exposure to abutting property owners and to the decontamination workforce. Contamination in the Bay Shore site, for example, leached under nearby Long Island Railroad tracks, necessitating remediation and removal and replacement of track. In the case of the Sag Harbor site, contamination spread through the downtown commercial district and into the town's iconic harbor on Gardiners Bay.

The predominance of sites in urban residential and potential environmental justice neighborhoods increases the level of health and safety concerns. For example, DEC adduced incidents of children wading through surface pools of coal tar and other contaminants. A visitor at the Con Edison MGP site in Mount Vernon can reach out and touch the apartment building abutting the contaminated site. The same few blocks house a community center with daycare facilities, a church, and neighborhood homes.

#### 4. The DEC Investigation, Remediation, and Cost Estimation Procedures

DEC oversees the site investigation pursuant to its regulations, identifying the nature of the contamination and the options for its removal and disposal. DEC establishes priority for remediation by considering first, whether there is existing residential use of the site or near it, and then other factors including sensitive environmental resources or public

EPA 2007 CERCLA Priority List of Hazardous Substances, at http://www.atsdr.cdc.gov/cercla/07list.html.

Transcript of July 12, 2011 Technical Conference, hereinafter Tr., at 116.

<sup>&</sup>lt;sup>38</sup> *FirstEnergy*, Slip Opn at 49-50.

recreational lands, the active commercial nature of the property, and its potential for reuse.<sup>39</sup> In the investigation stage the utility surveys the land use, ecosystem, and community, including the geology, hydrology, soil and groundwater. It submits a proposed remediation plan, with alternatives ranging from minimal to complete remediation, with cost estimates for each alternative. DEC, in consultation with the New York State Department of Health (DOH) where appropriate, selects the remediation plan, applying nine criteria. It documents the outcome in a Record of Decision or otherwise.<sup>40</sup>

A critical determination at this stage is the level of clean-up, which is arrived at using applicable standards, criteria and guidance and DEC soil clean-up objectives. Where sites are currently residential, they are generally required to be remediated to unrestricted use – the highest level of remediation. Where the utility still owns and operates facilities on a site, it may be remediated to commercial use. The final remediation plan is crafted with community participation and in a collaborative, hands-on process with the utility or other potentially responsible party.

DEC considers New York's MGP remediation program a mature and successful effort, and puts it forward as a national model. When the program was initiated in the 1990s, DEC's emphasis was on removal of facilities and of tar. However, since the year 2000 the exigency of remediation was recognized and the program now involves a full-blown remediation process, going from 90 identified utility sites to 221.<sup>41</sup>

Cost effectiveness is one of the DEC criteria in remedy selection. DEC assesses cost effectiveness in the overall evaluation of a series of alternatives, with multiple alternatives developed for each site. It selects the most cost-effective remedy that achieves the overall goal of protection of human health and the environment. The governing DEC regulations prescribe two threshold criteria—protection of human health and the environment, and compliance with New York State standards, criteria, and guidance. Next are six primary balancing criteria, including cost-effectiveness. That criterion is defined as follows:

http://www.dec.ny.gov/chemical/24904.html.

The criteria are: (1) protection of human health and the environment, (2) compliance with New York State Standards, Criteria, and Guidance, (3) long-term effectiveness and permanence, (4) reduction of toxicity, mobility, or volume, (5) short-term impacts and effectiveness, (6) implementability, (7) cost-effectiveness, (8) land use, and (9) community acceptance.

<sup>&</sup>lt;sup>41</sup> Tr., 47.

<sup>&</sup>lt;sup>42</sup> Tr., 58.

Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although costeffectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision. 43

The cost effectiveness criterion as applied in this context turns on the relative utility of additional remediation requirements, measured against the additional cost incurred. The DEC application of cost-effectiveness tracks the federal definition. The federal court in FirstEnergy examined the issue of how to determine whether a remediation cost was necessary, in the context of allocation of liability among potentially responsible parties for NYSEG MGP remediation at several sites. In finding justified all the NYSEG claims for contribution, the court discussed the CERCLA requirement that to be recoverable, a response expense must be cost effective, meaning "not necessarily the least expensive, but instead 'the most cost effective method of alleviating the threat to human health and the environment in the specific location, surroundings, and likely uses for the land.""44

The record abounds with utilities' examples of their negotiations with DEC throughout this process to contain costs, beginning with seeking adjustments to the clean-up level. Utilities stated that in negotiations with DEC they advocate placing restrictions on future property use, either through engineering or easement-style restrictions, as an alternative to requiring the most expensive and thorough unrestricted use standard. The record details other cost control measures for remediation. These include: where a private developer owns the site, sharing costs such as excavation and re-paving with that developer; identifying contamination caused by other potentially responsible parties, and not undertaking its remediation; retention of contractors for a series of projects; competitive bidding comparable to DEC's own program; subcontracting for discrete tasks such as sample analysis or waste transportation and disposal; use of alternatives to excavation and transportation of contaminated soil (encasing it in cement on site, where appropriate), or treating wastewater on site.

Relevant to the issue of cost control is whether or not the utilities are more complacent than other industries in negotiations with DEC, confident in their ability to pass all costs on to their customers. DEC stated it saw little difference with respect to the approach to

<sup>43</sup> DEC Response to DPS IRs 1-13, Letter to ALJ (April 5, 2011); see 6 NYCRR Part 375.

FirstEnergy Slip Opn. at 264-266 (citing cases). That court also anticipated that NYSEG's proceeds from other potentially responsible parties would be returned to its ratepayers (at 276-279).

containing costs between utility and other potentially responsible party conduct in negotiations, investigations, or remediation. <sup>45</sup>

#### 5. Current and Projected MGP Costs and Consumer Impacts

#### a) Estimates of Total Program Costs and Expenses through 2011

The cost of remediation has been substantial and augurs to be greater. The total estimated cost of the SIR program, from inception to completion, is estimated by the utilities at approximately \$3.8 billion. Adding the domestic utilities' plus the Iberdrola companies' statements of future potential liability, according to their annual reports, brings the worst-case scenario of costs to roughly \$5.5 billion. 46

From the inception of the SIR program through year end 2011, utilities will have spent approximately \$1.95 billion, of which \$813 million remains to be recovered in rates, insurance and third-party contribution.<sup>47</sup>

Remediation expenditures for 2011 are expected to reach roughly \$231 million, with an estimated \$179 million to be collected this year. The current impacts on customer bills vary widely by utility, with KEDNY and KEDLI standing out as the highest. Year 2011 monthly bill impacts of SIR costs as a percentage of the customer's total bill, for residential electric customers ranged from 0.24% (\$.22) (Con Edison) to 2.21% (\$2.28) (NYSEG); for commercial customers, from 0.20% (Con Edison) to 1.49% (NYSEG); and for industrial customers 0.15% (Con Edison) to 1.12% (NYSEG). For residential gas customers, SIR costs range from a low of 0.16% (\$.97) of the total bill (Con Edison) to a high of 2.78% (\$3.67) (KEDLI); for commercial gas customers, from a low of 0.11% (Con Edison) to a high of 3.31% (KEDNY); and for industrial customers, from 0.08% (Con Edison) to 0.77% (NYSEG).

Additional expenses for the balance of the program are estimated at \$1.85 billion (or, worst-case, \$3.6 billion). <sup>48</sup> Generally, utilities expect the final program costs to lie

<sup>&</sup>lt;sup>45</sup> Tr., 64-65.

For NYSEG, see http://documents.dps.state.ny.us/public/MatterManagement/CaseMaster. aspx?MatterCaseNo=10-01662 (6/24/11), at 123k; for RG&E, see http://documents.dps. state.ny.us/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=10-01664 (7/21/11), at 123i. The future potential (worst-case) estimate is somewhat understated because it does not include comparable data for the National Grid companies. Appendix C, Table 1, is based on the White Paper, Appendix A, with the addition of the Iberdrola companies' forecasts of potential additional liability, and a recalculation of Column G, regulatory asset write-down, at 10%. Appendix C, Table 2, replicates the White Paper, Appendix A.

See Appendix C, Table 1, Columns C and E.

<sup>&</sup>lt;sup>48</sup> See Appendix C, Table 1, Columns F and G.

somewhere in between the estimates and the worst-case outcomes. <sup>49</sup> There are, however, factors that could moderate these projections. First, some utilities may still collect third-party payments, or insurance awards, beyond those forecast, that would mitigate the SIR costs to be recovered from their ratepayers. For example, NYSEG estimates that the recent Northern District decision in *FirstEnergy* can realize approximately \$60 million toward past and future clean-up costs. Some other utilities also continue to pursue both insurance and third party recovery. Second, DEC reported that bids for remediation work are coming in below estimates in its own current contracting process, perhaps reflecting the impact of the economic downturn.

#### b) <u>Difficulties in Estimating Future Costs</u>

Uncertainty regarding future costs results in part from the divergence between domestic and foreign accounting. Foreign corporations are only required to report the lower end of their estimates of future costs, while the domestic corporations must also report potential costs beyond those that are estimated. In addition, the full scope of future necessary remediation has not been identified. Parties agree that for most utilities these costs will increase in the future. This contributes to the uncertainties of these estimates. The scale and scope of remediation of each MGP site can often be a growing, developing project. The toxic substances are generally underground; they have often, even usually, spread beyond the boundaries of any container vessel; and they often travel into the soil and groundwater. Not until the site investigation process has been completed can DEC and the utilities have a reliable estimate of what the ultimate clean-up costs will be. Frequently, once actual remediation has commenced, conditions at the site require additional remediation.

This characteristic of MGP remediation has been noted and analyzed at the federal level as well as in New York. The EPA's National Contingency Plan recognizes the difficulty – if not the impossibility – of such estimates. Indeed, the National Contingency Plan itself recognizes that the margin of error in most remediation cost estimates ranges from 30% below actual, to 50% above. The utility presentation at the Technical Conference relied on EPA data to confirm this wide range of uncertainty, and located it primarily in the early stages of the investigation and remediation process, when the scope and scale have not yet been determined and the remediation plan has not yet been developed. At a later stage, once the agency – in this case DEC – has zeroed in on a remediation plan, the vagaries of costs decrease dramatically, according to EPA. <sup>50</sup>

<sup>&</sup>lt;sup>49</sup> Tr., 135.

Technical Conference Presentation by Timothy Devitt on behalf of the Joint Utilities (July 12, 2011), Tr., 7-8.

#### c) Future Impacts on Ratepayer Bills

To complete the remediation process, as estimated by DEC, will take approximately 10 more years. Depending upon the extent to which the Commission moderates annual bill impacts by deferring collection, paying for that remediation could take customers into 2027 or, in some cases, later. Staff was asked to provide estimates of the future bill impacts of rising SIR costs. Staff supplemented the White Paper data with a calculation of the projected amount of SIR costs that must be included in rates from 2012 on to recover the unrecovered (deferred) and expected future SIR costs for each gas and electric business unit. The summary tables below, and the full spreadsheets attached as Appendix C, Table 4, summarize the changes from amounts currently in rates to future amounts for the residential, commercial and industrial classes. For purposes of this analysis, the assumption was made that all companies would have a carrying charge for their SIR costs of 10.0% (close to pre-tax rates of return). The Staff estimates incorporated the White Paper calculations of outstanding balances to be collected as of December 31, 2010, estimated amounts currently being collected from ratepayers for SIR costs in 2011, and future costs.

Applying the 100% rate recovery regime in effect for most utilities, Staff forecasted the bill impacts of SIR costs as a percentage of total bills from 2012 on. The assumptions underlying these calculations were that, from 2012 on, 20% of the total costs would be incurred in 2012 and 20% in 2013; 15% in each of 2014 and 2015; and 10% each year from 2016 through 2018. The collections were assumed to continue through 2027. Several companies have amortization schedules of five to ten years for these costs, and Staff assumed that these costs would continue to be paid for up to nine years after the last expenditures. Finally, Staff assumed that the amount collected from customers would change on January 1, 2012 and then be held constant through 2027.

To summarize Staff's forecast, the range of future impacts on residential electric customers was from a low of 0.58% (\$.53) (Con Edison), to a high of 1.74% (\$1.52) (Central Hudson). For commercial electric customers, the forecast impacts are 0.47% (Con Edison) to 1.64% (Niagara Mohawk). For industrial electric customers the range is a low 0.37% (Con Edison) to a high 1.56% (Niagara Mohawk). The forecasts for residential gas customers ranged from a low of 0.45% (\$1.24) (Con Edison) to a high of 3.35% (\$4.44) (KEDLI) and 2.74%

Appendix C, Table 4 – SIR Bill Impacts Forecast, Revised (filed September 9, 2011).

The summary tables show 2011 and 2012 forward projected SIR bill impacts as a percentage of total bills, reflecting the customer experience of SIR cost increases. Current and projected SIR impacts as a percentage of delivery charges are also shown in Appendix C, Table 4, pages 1-3.

(\$3.49) (KEDNY). No other residential gas customers would experience increases above 2%, and most impacts would be less than 1%, from 2011 bill impacts to those for 2012 forward. For commercial gas customers projected impacts would go from a low of 0.15% (National Fuel) to a high of 6.22% (KEDNY) and 2.5% (KEDLI). For industrial gas customers the range was from 0.11% (NYSEG) to 1.00% (Niagara Mohawk), while bills for National Fuel and NYSEG would go down. Although the percentage increases in SIR costs expected in coming years is significant, the actual dollar amounts are moderate for residential customers of most companies, and for some companies show a reduction. <sup>53</sup>

Examining estimates of SIR costs through 2010, for 2011, and from 2012 on, assuming that utilities recover all prudent net costs, yields a portrait of increasing but still relatively manageable bill impacts for almost all utilities, decreasing impacts for a few, and relatively high impacts for KEDNY and KEDLI.

2011			2012 and On	
SIR Impact per % Total		SIR Impact	% Total	
Utility	Month	Bill	per Month	Bill
Central Hudson	\$0.77	0.89%	\$1.52	1.74%
Con Edison	\$0.22	0.24%	\$0.53	0.58%
NiMo	\$0.74	0.83%	\$1.36	1.51%
NYSEG	\$1.51	2.21%	\$0.96	1.42%
O&R	\$1.43	1.13%	\$2.06	1.62%
RG&E	\$0.87	1.12%	\$0.88	1.13%

Residential Gas SIR Bill Impacts Forecast

2011			2012 and On	
	SIR Impact per	% Total	SIR Impact	% Total
Utility	Month	Bill	per Month	Bill
Central Hudson	\$0.64	0.50%	\$1.24	0.97%
Con Edison	\$0.97	0.16%	\$2.76	0.45%
KEDLI	\$3.67	2.78%	\$4.44	3.35%
KEDNY	\$1.80	1.43%	\$3.49	2.74%
NFG	\$0.32	0.33%	\$0.15	0.16%
NiMo	\$0.96	0.96%	\$1.68	1.66%
NYSEG	\$2.28	2.16%	\$0.33	0.32%
O&R	\$0.81	0.46%	\$1.99	1.12%

<sup>53</sup> See Appendix C, Tables 1-4.

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RG&E	\$0.77	0.79%	\$0.78	0.80%
NOWL	Ψ0.77	0.7970	ψ0.76	0.0070

## Commercial Electric SIR Bill Impacts Forecast

	2011	2012 an	d On	
	SIR Impact per		SIR Impact	
Utility	Month	% Total	per Month	% Total
		Bill		Bill
Central Hudson	\$2.94	0.67%	\$5.80	1.31%
Con Edison	\$6.19	0.20%	\$14.99	0.47%
NiMo	\$14.50	0.90%	\$26.60	1.64%
NYSEG	\$18.50	1.49%	\$11.82	0.96%
O&R	\$19.64	0.94%	\$28.32	1.35%
RG&E	\$16.84	0.98%	\$16.97	0.99%

## Commercial Gas SIR Bill Impacts Forecast

	2011	2012 an	d On	
	SIR Impact per		SIR Impact	
Utility	Month	% Total	per Month	% Total
		Bill		Bill
Central Hudson	\$1.83	0.40%	\$3.55	0.77%
Con Edison	\$4.06	0.11%	\$11.56	0.32%
KEDLI	\$9.73	2.07%	\$11.79	2.50%
KEDNY	\$12.65	3.31%	\$24.54	6.22%
NFG	\$1.41	0.31%	\$0.66	0.15%
NiMo	\$1.77	0.59%	\$3.09	1.03%
NYSEG	\$4.87	1.58%	\$0.71	0.23%
O&R	\$2.47	0.40%	\$6.08	0.98%
RG&E	\$2.50	0.94%	\$2.54	0.95%

## Industrial Electric SIR Bill Impacts Forecast

	2011	2012 and On		
	SIR Impact per		SIR Impact	
Utility	Month	% Total	per Month	% Total
		Bill		Bill
Central Hudson	\$215.21	0.40%	\$424.57	0.78%
Con Edison	\$247.20	0.15%	\$598.78	0.37%
NiMo	\$720.00	0.86%	\$1,320.98	1.56%
NYSEG	\$650.26	1.12%	\$415.46	0.72%
O&R	\$574.76	0.61%	\$828.79	0.87%
RG&E	\$593.79	0.82%	\$598.31	0.83%

Industrial	Gas SI	R Bill	Impacts	Forecast
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	2011	2012 an	d On	
	SIR Impact per		SIR Impact	
Utility	Month	% Total	per Month	% Total
		Bill		Bill
Central Hudson	\$6.33	0.30%	\$12.29	0.58%
Con Edison	\$68.11	0.08%	\$193.88	0.23%
NFG	\$63.54	0.25%	\$29.88	0.12%
NiMo	\$36.66	0.58%	\$64.06	1.00%
NYSEG	\$357.73	0.77%	\$51.88	0.11%
O&R	\$208.55	0.33%	\$513.39	0.82%
RG&E	\$143.43	0.30%	\$145.60	0.31%

As an example of future bill impacts, Staff offered the illustrative case of Central Hudson. As of December 2010, Central Hudson had an unrecovered balance of SIR expenditures of \$7.8 million. <sup>54</sup> Of this, 85% is the responsibility of electric customers; the remainder is allocated to gas customers. Therefore, electric customers owed the company approximately \$6.6 million for SIR costs at the beginning of 2011.

In 2011, Central Hudson will have collected just under \$3.8 million from electric customers for SIR expenses. For the same period, it expected to incur \$1.6 million of SIR costs. Adding in approximately \$.5 million for interest, Central Hudson electric customers will owe approximately \$5.0 million at the end of 2011. Central Hudson has forecast an additional \$86.1 million of SIR costs to be incurred from 2012 on. Of this remaining amount, \$73.2 million is the burden of electric ratepayers. In order for all SIR costs to be paid off by the close of 2027, electric customers' SIR payments would have to almost double as of January 1, 2012, to \$7.45 million, assuming they would then be held steady through 2027. This increase would mean that SIR costs would go from 0.89% of residential electric customers' total bills (1.5% of residential electric customers' delivery bills) to almost 1.74% of total bills (3% of delivery bills). These percentages reflect a bill increase from \$.77 to \$1.52, an increase of about 75 cents per month. While this amounts to a 97% increase in SIR costs as a percentage of the total bill, it is a moderate increase in dollars and cents. For gas customers, the increase would be about 94%, translating to about 60 cents per month for residential customers. At this higher level, SIR costs would still be less than 1% of total bills. <sup>55</sup>

To recover fully future anticipated SIR costs, eight of the 15 utility electric and gas divisions would need to increase the amount they are currently collecting by between 75%

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<sup>&</sup>lt;sup>54</sup> Appendix C, Table 1, Column B.

DPS Response to DOS Interrogatories (filed July 28, 2011).

and 185%; however, for all but KEDNY, SIR costs would increase by less than 1% of the total bill for all customer classes. For three of the utility divisions (NYSEG's electric and gas divisions and NFG), SIR collections are expected to decrease.

Only KEDNY – and to a lesser extent, KEDLI – can expect significantly more substantial pressure on its rates due to projected SIR costs. For KEDNY's residential customers, 1.4% of customers' total bills are SIR costs (slightly more than 3% of delivery charges). This percentage would have to nearly double in 2012 to 2.7% of the total bill (5.8% of the delivery bill), and continue to be collected at that rate through 2027. For commercial customers, the impacts are even higher, as SIR costs would rise from 3.31% of total bills to 6.22%. These impacts could be attenuated by further deferring recovery.

#### IV. RATE AND OTHER COST RECOVERY MECHANISMS

In the Instituting Order the utilities and other parties were invited to comment on the advantages and disadvantages of various rate recovery models, including sharing costs between ratepayers and shareholders, full or partial deferral of such costs, permitting utilities to retain all or a portion of any recovery of SIR costs from insurance carriers and/or other potentially responsible parties, and whether existing or proposed rate recovery mechanisms provided an adequate incentive for utilities to implement approved SIR projects in the most cost-effective manner. Comments, data provided by Staff, the utilities, and DEC, the record of the Technical Conference, and New York and other precedents on this issue were surveyed. The analysis below weighs the alternatives. Factors considered were their legality, their impact on customers' bills, their effectiveness in ensuring thorough and timely remediation, and their fairness or equity.

#### A. Current Practices

Commission policy has been to require a utility to demonstrate, in order to recover SIR costs, that it employed the lowest cost techniques for site investigation and remediation, pursued recovery from potentially responsible third parties, and had sought

For KEDNY and KEDLI, these estimates assume that the amounts currently being collected in rates through the delivery rate adjustment (DRA) mechanism (\$20 million for KEDNY and \$30 million for KEDLI) are SIR expenses, since the mechanism was put in place largely to deal with anticipated SIR cost balances on the companies' books. Similarly, the assumption is that funds collected through the DRA from 2008-2010 will be used to offset existing SIR balances.

compensation pursuant to insurance policies in effect at the time of contamination.<sup>57</sup> In rate cases, Staff analyzed and where appropriate, the Commission reviewed the number of sites, potential SIR cost exposure, the timing and process of the site investigation and clean-up, the utility's financial status, and its pursuit of third party and insurance recovery. In two cases, the Commission required shareholders to assume some percentage of SIR costs.<sup>58</sup> In all other investigations, the Commission approved full rate recovery where it found SIR practices prudent.<sup>59</sup> Currently most utilities are governed by rate orders that provide full recovery of prudently incurred SIR costs with the amounts above the level currently recoverable in rates deferred for future recovery.

#### B. Allocation of Costs Between Ratepayers and Shareholders

The Commission flagged the issue of the appropriate allocation of responsibility for remediation costs and sought parties' recommendations for alternatives. The White Paper and comments analyzed several models for possible new generic policy governing all utilities going forward. Three alternative approaches had in common placing some of the burden of SIR costs on utility shareholders. The first involved sharing from dollar one – that is, that the utility shareholders would bear a set percentage of total SIR costs. A second model was based on sharing a set percentage of SIR costs above a certain level, target, or cap, such as the approach taken by the Commission in the recent Niagara Mohawk electric rate case. A third approach afforded utilities recovery of SIR costs but not of the associated carrying charges for deferrals.

<sup>57</sup> Case 93-G-0621, *Brooklyn Union Gas Company – Deferred Accounting Treatment*, Order Determining Cost Recovery of Environmental Site Investigation and Remediation Expenses (issued February 16, 1995).

See Cases 10-E-0050, et al., Niagara Mohawk Power Corporation—Electric Rates, Order Establishing Rates for Electric Service (issued January 24, 2011); and Cases 29327.et al., Niagara Mohawk Power Corporation—Consolidated Proceeding, Opinion No. 95-21, Opinion and Order Concerning Revenue Requirement and Rate Design (issued December 39, 1995) (requiring 20% utility sharing of rate year 1995 SIR costs as an incentive to contain costs and aggressively seek contribution).

Only two instances of a Commission disallowance have been adduced on this record. One was the Commission determination in the 2007 National Fuel rate case, in which the imprudence disallowance concerned the parent company's allocation of insurance benefits. Case 07-G-0141, *National Fuel Gas Distribution Rates for Gas Service*, Order Establishing Rates for Gas Service (issued December 21, 2007). That Commission decision was subsequently vacated by the New York State Court of Appeals, in *National Fuel Gas v. Public Serv. Commn.*, 16 N.Y.3d 360 (2011). The second was Case 08-M-0407, *Niagara Mohawk Petition for Proposed Transfer of Real Property*, Order Denying Reconsideration (issued July 21, 2010) (reasonableness of remediation and relocation expenses not demonstrated).

In examining these alternatives, the analysis below weighs potential ratepayer benefit against possible financial impacts and the consequences for the remediation process.

#### 1. The Financial and Rate Impacts

Utilities, DEC and Staff defended the effectiveness of the current general rate treatment affording utilities full recovery of SIR costs, with the use of deferrals to mitigate undesirable rate and bill impacts in any given year. Staff expressed concerns that an allocation to shareholders of a percentage of SIR costs, or allocating to shareholders responsibility for carrying costs, could result in write-offs, credit rating downgrades, and increases in the costs of debt and equity. These effects could cut into ratepayer savings on SIR expenses.

In the White Paper, responding to parties' 20/80% sharing proposals, Staff explained that if the Commission adopted a new generic policy requiring shareholders to absorb 20% of net SIR costs, there was likely to be an immediate impairment of utility regulatory assets and a charge to utility earnings. It is Staff's expectation that, in order to conform to Generally Accepted Accounting Principles (GAAP), utilities responsible for site remediation must record as a liability an estimate of clean-up costs. If the regulatory regime provides certainty of full recovery of these costs, companies may concurrently record an identical regulatory asset. However, if the utility will not obtain full recovery, that asset must be reduced accordingly, with a charge to income. Adopting the future estimated costs at approximately \$2 billion for the industry as a whole, a 20% sharing mechanism would entail a statewide impairment of roughly \$400 million. An estimate of the financial impact of shifting 10% of costs to shareholders is attached. 60

Staff expressed concerned that the disallowance would result in a higher cost of equity, resulting from a downgrade. This effect could substantially reduce or even eliminate intended ratepayer savings. As to the probability of a downgrade resulting from a revision to Commission policy, the utilities adduced examples of downgrades by Moody's Investors Services of both Con Edison and Orange & Rockland, citing the New York regulatory environment, following the imputation of austerity adjustments to Con Edison rates. <sup>61</sup>

At the Technical Conference, utility presenter Robert Hevert (Concentric Energy Advisors) assessed that the financial consequences of such a policy change would be significant,

<sup>60</sup> See Appendix C, Table 1.

Joint Utilities Reply Comments, at 12; DOS Initial Comments, at 9, fn. 18. The Joint Utilities also argue that rating agencies' reaction to a change in SIR cost recovery policy would be more dramatic than this, as utilities would be required to continue their remediation efforts, whereas with an austerity adjustment, a concomitant delay or deferral of programs is expected.

and that limitations on the recovery of SIR costs were likely to have a disproportionate effect. The utility view was that limitations on SIR cost recovery would be viewed by the financial markets as a significant policy shift increasing regulatory risk and therefore the utility cost of capital. For the National Grid companies, for example, with a combined regulatory SIR reserve near \$1.45 billion, a 10% automatic disallowance would create an impairment of \$145 million. he Joint Utilities added that a credit downgrade would be likely if the Commission reversed a long-established policy allowing for full recovery of prudently incurred SIR costs. he utilities warned of a possible or probable credit rating downgrade resulting from a generic policy placing some percentage of SIR remediation costs on shareholders. The utilities cited a January 2011 J.P. Morgan Cazenove Report sounding an alert on National Grid, which highlighted the Commission postponement of recovery of SIR costs. have been dispersional properties of SIR costs. highlighted the Commission postponement of recovery of SIR costs.

Staff credited the utility fears. However, it suggested a caveat regarding the value of generalization about the likelihood of credit downgrading based upon one factor on a utility balance sheet, especially a factor that is unlikely to be a major rate driver for most companies. In Staff's view, a downgrade would be most likely where a utility's credit rating outlook was already tenuous, and where a substantial write-down could have a material negative effect. Also, the consequences of such write-downs, Staff noted, would depend not only on the size of the write-down but on the circumstances of specific utilities. 66

Staff elaborated that its conclusion was based upon its expectation that an 80/20 sharing, for example, would require the regulatory assets of the utilities to be written down by an amount equivalent to 20% of their respective future net SIR costs. <sup>67</sup> If the sharing level were different, for instance 10% or 5%, then the write down would be proportionate. Where a utility's credit rating outlook may already be somewhat tenuous, a substantial write down could have a material negative impact on its credit metrics, in particular if a category of costs previously deemed recoverable were now disallowed. Staff adduced the example of a Standard and Poor's downgrade of Con Edison, in March 2008, in which the rating agency opined: "Importantly, any deviation in expected cash flows, delays in reducing leverage, or *difficulty recovering environmental and stranded costs in a timely manner may weaken the financial* 

<sup>&</sup>lt;sup>62</sup> Joint Utilities Reply Comments, at 11.

<sup>&</sup>lt;sup>63</sup> Joint Utilities Reply Comments, at 12.

<sup>&</sup>lt;sup>64</sup> Joint Utilities Reply Comments, at 13, n. 16.

<sup>&</sup>lt;sup>65</sup> DPS Response to DOS IR-3.

DPS Reply Comments, p. 3.

<sup>67</sup> See Appendix C, Tables 1 and 2.

profile, heightening the potential for outlook revision to negative or a downgrade" (emphasis added). <sup>68</sup> In Staff's view this negative perception might apply to New York's utilities generally, and Staff calculated that a credit downgrade, leading to a higher cost of equity for New York utilities, could negate at least half of the ratepayer savings that would result from allocation of some percentage of costs to shareholders. <sup>69</sup>

Multiple Intervenors and DOS responded that these predictions were speculative. These parties challenged the utility and Staff assessments based on the incomplete quantification by the utilities of future financial consequences, the absence of evidence concerning the credit rating effect of either of the two prior PSC decisions allocating costs to shareholders, and the lack of evidence of utility downgrading from other jurisdictions that charge shareholders for some or all SIR costs. New York City pointed out that the quality of evidence of these adverse consequences can best be established by the utility in a rate proceeding. Department of State cited to Staff filings in other proceedings casting doubt on utilities' analytical methods in predicting dire consequences for the cost of capital, including testimony of one witness upon whom utilities relied in this proceeding. It asserted that the level of impairment at issue in this proceeding was insufficient to result in any effect on credit ratings. <sup>70</sup>

The lowering of Con Edison's corporate credit rating from A to A- by Standard & Poor's on March 25, 2008, was reported at http://uk.reuters.com/article/2008/03/25/idUKWNA909920080325, cited in DPS Reply Comments, at 4.

Staff considered bond yields over the past five years. Based upon the July 2011 *Mergent Bond Record*, Staff calculated the five year average spread differential between utility debt obligations rated A and Baa (BBB) to be approximately 56 basis points, indicating utility debt investors have required an additional 18 basis points for each rating decrement between A and Baa/BBB (A/A2 to A-/A3; A-/A3 to BBB+/Baa1 and BBB+/Baa1 to BBB/Baa2). Staff asserted that the cost of equity for New York utilities would increase almost immediately to reflect the greater uncertainty and other negative financial consequences associated with such a policy change. The nine New York utilities at issue had roughly \$18.3 billion of common equity on their balance sheets at the end of 2010. A moderate increase in the cost of equity of only 10 basis points would cost the ratepayers of these nine companies roughly \$31 million per year. A requirement to have shareholders absorb 20% of SIR liability would in theory absolve ratepayers of some \$400 million of future SIR costs; however even a very modest increase in just the cost of equity component alone would consume over half of those savings after seven years. Staff Reply to DOS Interrogatories (dated July 28, 2011, filed October 25, 2011), at 2.

DOS Initial Comments, at 14-15, 17.

Multiple Intervenors and DOS initially proposed the imposition of a cost sharing mechanism allocating 20% of all SIR costs to shareholders, and 80% to ratepayers. In comments, these parties retreated to support a 10% shareholder and 90% ratepayer allocation. Multiple Intervenors also recommended that utilities be permitted to retain a symmetrical 10% of insurance proceeds and potentially responsible party recovery. This generic cost recovery alternative, it asserted, was both fairer than full recovery, a moderate shareholder burden less likely than the earlier 20/80 proposal to entail financial consequences, and calculated to encourage the utilities to be more aggressive in controlling SIR costs than they are today.

The utilities have presented for Commission consideration the possibility, or probability, that rating agencies could downgrade companies based on the impairment of regulatory assets resulting from a change in Commission generic policy to require utilities to absorb some percentage of prudently incurred SIR costs. Staff shares this concern. However, Staff's point is well taken that this effect is more likely to result from the specific circumstances of a Commission determination in a given utility's rate case, and from the assessment of the utility's financial position as a whole. The SIR costs are substantial and growing. However, in most instances, they may not be drivers of revenue requirements or future utility financial health.

Multiple Intervenors, DOS and New York City challenge the evidence of financial vulnerability presented by the utilities. However, this issue is essentially not one of fact, but one of judgment, based upon weighing the variables: what will future financial impacts be, what will future rating agencies decide? What the utilities have established is that this is a real risk attendant upon a generic policy requiring utility sharing.

I conclude that without the perspective and rigor of a company-specific rate case, and identified rate and financial impacts, it is not feasible to quantify this risk meaningfully, beyond the estimates presented here. Accordingly, leaving the sharing options to be decided in company-specific rate cases will maximize the Commission's flexibility, including the option to take advantage of opportunities to pay down SIR costs expeditiously presented by utility's particular circumstances. In addition, a generic policy is likely to have more attendant risk than a time-limited choice in a rate case. Because there is some real risk that a resulting downgrade could cut into or even eliminate the ratepayer benefit of sharing, I recommend against a generic sharing policy.

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New York City found this sharing proposal attractive, but emphasized the critical importance to the city of timely and thorough remediation, fearing this could be compromised by sharing.

#### 2. The Cap or Target Alternative

Another approach open to the Commission is to establish or adopt a utility estimate of SIR expense and to allow rate recovery only up to that annual estimate. Should utility SIR expenses for that year exceed the target estimate or cap, 20% (or some other percentage) of SIR expenses incurred in excess of the amounts allowed in rates would be borne by utility shareholders, while the balance would be recovered in rates. Advanced against the cap approach was the importance of flexibility required by a complex SIR program. At the technical conference both the utilities and DEC emphasized that flexibility was critical to an effective remediation process.

Utility presenter Timothy Devitt (Gnarus Advisors), discussed the uncertainty of establishing meaningful cost estimates for Superfund remediation, drawing on the guidelines of the EPA, the American Society for Testing and Materials (ASTM), and the Financial Accounting Standards Board (FASB). According to Mr. Devitt, these sources have agreed that actual remediation costs seldom if ever equal the cost estimated in the record of decision. A variation from estimates by 20 to 40% is common and variation by 100% is not unknown. The utilities noted that EPA recognizes that even when remediation has been redesigned, there still remains significant cost uncertainty. They also averred that expert sources conclude that following standard procedures does not eliminate variation from cost estimates, even when foreseeable contingencies are taken into account.

It is this experience that led to the decision by the insurance industry to abandon its offerings of remediation cost cap insurance, developed in the late 1990s. Experiencing the uncertainty of remediation cost estimates, by 2004 the insurance industry insisted on a record of decision as a basis for coverage. At present insurers have "no appetite" for pursuing that type of coverage, according to the utilities.<sup>75</sup>

In this context, I recommend against establishing a generic policy requiring a cap on expenses based upon SIR cost estimates. The manufactured gas plants have not been operated in over 50 years; they are unlikely to be owned by the utility; and off-site contamination

The Commission chose this approach in the recent Niagara Mohawk electric rate proceeding. Cases 10-E-0050, *et al.*, *Niagara Mohawk Power Corp. Electric Rates*, Order Establishing Rates for Electric Service (issued January 24, 2011).

Joint Utilities Initial Comments at 19-20; Tr., 53.

<sup>&</sup>lt;sup>74</sup> Tr., 156.

<sup>&</sup>lt;sup>75</sup> Tr., 163, 169.

can be as significant a problem as what is on the site itself. <sup>76</sup> In this framework of uncertainty, MGP remediation poses special challenges for reliable forecasting.

#### 3. The Carrying Charges Alternative

To prevent excessive rate and bill impacts of SIR costs in a given year, this Commission has deferred portions of these annual expenses, with recovery of the deferred amounts subject to Commission-approved amortization periods. Some states have implemented a form of shareholder/ratepayer sharing by deferring rate recovery for remediation costs, but denying recovery of the associated carrying charges. For example, New Hampshire, Rhode Island, Maine, and Massachusetts do not allow utilities to collect a carrying charge on the balance of unrecovered SIR costs. Carrying charges on this deferred expense generally are set at the utility's pre-tax rate of return, typically approximately 10%. Multiple Intervenors suggested if the Commission declined to adopt an allocation of 10 or 20% of SIR costs to shareholders, it should preclude the recovery of carrying charges.

The utilities presented their expert to establish that carrying charge disallowance could have a significant effect on the utilities' financial metrics. To illustrate, the utilities offered an estimate of the effect on their financial metrics of a disallowance of carrying charges. Fearing a significant effect in lost market value and regulatory asset write-downs, the utilities projected lost market value (as a percentage of 2010 implied market value) of more than 6% for KEDLI, 3.4% for Orange and Rockland, and 3% for Niagara Mohawk. The effect would be similar to that of sharing from dollar one, but on a smaller scale. Utilities asserted the disallowance would affect their cash flows, stability, and predictability. They noted that these factors are recognized by rating agencies to indicate an increase in their regulatory risk, and would likely have consequences for utility credit ratings.

In Staff's view, however, denying recovery of carrying charges on deferred SIR balances would not have a substantial financial impact on utilities. Staff anticipated moderate impacts on those utilities with substantial deferred balances, and little or no impact on those utilities with low balances. Staff concluded that adopting such an approach was unlikely to result in an impairment of the utilities' regulatory assets and corresponding earnings charges.

I find that, depending on the amount of the deferred balance, denial of recovery of these charges is unlikely to have a serious impact on the utility regulatory assets. However, if

11., 100.

<sup>&</sup>lt;sup>76</sup> Tr., 160.

<sup>&</sup>lt;sup>77</sup> See Technical Conference Presentation of Robert Hevert for the Joint Utilities.

Joint Utilities Concentric Presentation, Revised page 4 (filed August 12, 2011).

White Paper, at 29.

the underlying expenses have been found to be reasonable and prudent, I see little justification for denying recovery of carrying charges, as those charges result from a Commission determination to defer in order to mitigate rate impacts on customers. I am also not persuaded, on this record, that denial of recovery of carrying charges will produce a more efficient or effective remediation program, although it may produce a marginally less expensive one. Similarly, such denial is unlikely to produce meaningful rate relief for those utility customers most affected by SIR costs.

I am also swayed by Staff's concern that although denial of carrying charges on deferrals, in and of itself, is unlikely to have a significant financial impact, a generic policy disallowing costs once believed to be fully recoverable will add to the somewhat negative perception of New York regulation by the investment community.

#### C. Other Issues Raised by Sharing

#### 1. The Legal Issues Raised by Sharing

As a threshold matter, legal arguments were raised by parties concerning the sharing proposals. Utilities asserted a legal entitlement to recovery of prudently incurred costs, relying upon the regulatory compact theory, the axiomatic precept that a utility is entitled to recover from ratepayers prudently incurred costs, and other classic principles of ratemaking jurisprudence. The Joint Utilities asserted that any cost-sharing mechanism allocating to shareholders a percentage of SIR costs would deny utilities a reasonable opportunity to recover prudently incurred costs and would therefore violate New York law. This objection applies to denying recovery for a set percentage of SIR costs, and, to other mechanisms such as denying recovery of carrying charges for deferred costs or denying recovery of costs above a cap.

National Fuel urged additional reasons, even more compelling in its view, for full recovery of SIR expenses as opposed to others prudently incurred. Generally, prudence is determined by assessing the exercise of managerial discretion. With respect to remediation costs, however, the expenditures are incurred pursuant to federal or state statutes, regulations, and the direct oversight of the regulating federal or state agency. These expenditures should be considered prudent and subject to full recovery as a matter of law, absent evidence to the contrary, it asserted.

Multiple Intervenors and DOS advanced equitable and legal objections to the full recovery paradigm. Multiple Intervenors suggested that rate recovery for MGP-related expenses was inappropriate because the MGP plant benefited only prior generations of ratepayers, not today's. Multiple Intervenors proffered the theory that because today's ratepayers did not

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Joint Utilities Initial Comments, at 41; National Fuel Initial Comments, at 21.

receive manufactured gas service from the utilities, they should not be required to shoulder all – or perhaps any - of the costs of providing that service, including the costs of cleaning up its detritus. Multiple Intervenors also suggested the MGP plant is no longer used and useful – and has not been for roughly 70 years – and therefore ratepayers have no obligation to pay costs related to it. Multiple Intervenors referenced Indiana and California, among others, as states denying some or all recovery of SIR expenses.

Most states, including the other states with a relatively burdensome MGP legacy – Pennsylvania and New Jersey – have allowed utilities to recover MGP costs in their entirety. States allowing only partial recovery have frequently done so in the context of settlements, and have included, as DOS urges here, an incentive mechanism allowing utilities to retain all or part of insurance and third-party recovery. Other jurisdictions have allowed full recovery but withheld carrying charges, or allowed partial recovery. 82

The case law reviewing decisions by other state commissions to apportion MGP costs between ratepayers and shareholders on a generic policy basis is instructive but, in the final analysis, inconclusive. In 1995 the Supreme Court of Illinois considered a challenge to an Illinois Commerce Commission determination in a generic proceeding concerning the ratemaking treatment of SIR costs. <sup>83</sup> The commission found the utilities had prudently operated the MGP plants, and that they could recover the costs of statutorily mandated coal-tar clean-ups from ratepayers. The Illinois commission ordered utilities to amortize these costs over five years, but denied recovery for the associated carrying charges, on the grounds that sharing reflected the responsibility for the expenses, the relationship of the expenses to current utility service, and consideration of the "equitable principles" in its Public Utilities Act. <sup>84</sup> The Illinois

See, for example, Hazardous Substance Reasonableness Review, 54 CPUC 2d 391 (1994) (California Public Utilities Commission approves a settlement providing for 90%/10% sharing of SIR costs between ratepayers and utilities, where utilities retain some or all of insurance and third-party contribution). That settlement also precluded any subsequent prudence review of SIR costs.

See Public Service Company of North Carolina, 156 PUR4th 384 (N.C. 1994)(denial of carrying charges); Kansas Public Service, 146 PUR4th 123 (Kan. S.C.C. 1993)(60%/40% ratepayer to shareholder sharing on used-and-useful grounds, and finding current ratepayers receive no benefit from remediation). A similar Wisconsin decision also was swayed by the practice there that allowed shareholders to retain all profit (or loss) from the sale of remediated property. The Wisconsin Commission denied recovery of carrying charges, netting them against insurance and third-party recoveries. Wisconsin Power and Light Company, No. 6680-UR-108, 1993 Wisc. PUC LEXIS 64 (Wisc. Pub. Serv. Commn. 1993).

<sup>&</sup>lt;sup>83</sup> Citizens Utility Board v. Illinois Commerce Commission, 651 N.E.2d 1089, 1096 (Ill. Sup. Ct. 1995).

<sup>&</sup>lt;sup>84</sup> *Id.*, at 1093.

Supreme Court concluded that the utilities were entitled to recovery of all the legally mandated costs of doing business represented by SIR expenses; that, analogous to tax payments, utilities need not demonstrate a direct, immediate ratepayer benefit to be entitled to recover costs; and that coal tar clean-up expenses benefit ratepayers, because these payments allow utilities to remain in business and serve customers. Therefore the court vacated the denial of carrying charges. The commission had relied upon language in its authorizing statute including among the objectives of utility regulation, "Equity: the fair treatment of consumers and investors." However, the court held that the commission's sharing decision reflected a subjective notion of equity that arbitrarily denied utilities traditionally recoverable operating expenses. <sup>85</sup>

In contrast, the Indiana Supreme Court affirmed a determination by the Indiana Utility Regulatory Commission denying recovery of any MGP costs as "not sufficiently related to the provision of public utility service as to merit recovery." The commission had denied the utility's request to recover costs associated with the environmental clean-up of 26 manufactured gas plants, on the ground that as a matter of law recovery of costs of plant not used and useful was prohibited. <sup>86</sup> On appeal, the Indiana commission decision was affirmed. <sup>87</sup>

New York and federal courts have long adhered to Justice Brandeis's test that utility expenditures prudently undertaken should be recovered. However, that principle does not necessarily apply to each and every expenditure standing alone, as long as the overall result is just and reasonable. New York courts have definitively ruled that the Public Service Law authorizes the Commission to consider all factors relevant in its judgment in setting rates, and to assign to each factor whatever weight it deems appropriate, as long as the outcome is just and

Id., at 1099, citing 220 ILCS 5/1-102(d). In 1996, on remand, the Illinois commission approved full recovery.

In the prior Indiana Supreme Court determination, recovery of costs associated with construction of a cancelled nuclear power station was denied. *See Citizens Action Coalition v. Northern Indiana Public Service Company*, 485 N.E.2d 610 (Ind. 1985), cert. denied, 476 U.S. 1137 (1986)

Indiana Gas Co., Inc. v, Office of Utility Consumer Counselor, 675 N.E.2d 739 (Indiana App. 1997), transfer denied 690 N.E.2d 1180 (1997). Because Indiana Gas acquired the manufactured gas plants after decommissioning, and the utility never operated them to provide service, the court concluded the MGP facilities were never used and useful as required by Indiana law.

Southwestern Tel. Co. v. Public Serv. Commn., 262 U.S. 276, 290 (1923), Brandeis, J., concurring.

reasonable and supported by the record. <sup>89</sup> The New York State Court of Appeals has repeatedly affirmed that "[n]o ...rigid formula exists" for the setting of rates by the Commission, <sup>90</sup> and that courts "have not insisted upon a rigid approach." On the contrary, the Commission "is free to entertain or ignore any particular factor, or to assign whatever weight it deems appropriate". <sup>92</sup> The judicial deference to expert agency's ratemaking decisions can only be overturned by those effectively shouldering "the heavy burden of making a convincing showing that it is invalid because it is unjust and unreasonable in its consequences," and courts refrain from examining each detail of a regulatory decision if the "total effect of the rate order cannot be said to be unjust and unreasonable." <sup>93</sup>

In conclusion, there appears to be neither binding authority nor persuasive authority from other jurisdictions constraining as a matter of law Commission discretion either to mandate or to eschew sharing on a generic basis. Commission determinations either awarding full recovery or imposing some form of sharing of SIR expenditures therefore depend on weighing the financial and rate consequences, the impact on the remediation effort, the equity issues, and the incentive effects of these choices.

#### 2. The Effect of Sharing on the Remediation Effort

The Department of Environmental Conservation opposed alteration of the mechanism for SIR cost recovery. For DEC the existing rate recovery system has supported the State of New York in meeting its primary goal: to ensure that the environmental remedies, critical for public health and economic development, go forward. The agency pressed its concerns that altering the financing of this mature program risked delay in cleaning up sites. DEC illustrated the cost of delay, both in public health and financial terms. DEC feared delay may have the cascading effects of delaying economic development of the sites; prolonging affected communities' continued exposure; increasing ultimate costs because of the uncontrolled migration of coal tar; increasing likelihood of third party claims; and inflation of costs. DEC was concerned that budget-induced delay in some projects could slow others down, and that the

Abrams v. Public Serv. Commn., 67 N.Y.2d 205 (1986)(upholding Commission determination awarding rate recovery for costs of an abandoned plant, the Storm King pumped storage generating plant).

New York Telephone Company v. Public Serv. Commn., 95 N.Y. 2d 40, 48 (2000).

<sup>91</sup> Abrams v. Public Serv. Commn., 67 N.Y. 2d 205, 214 (1986).

<sup>&</sup>lt;sup>92</sup> *Id.*, at 212.

In Re Permian Basin Area Rate Cases, 390 U.S. 747, 767 (1968), quoting Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944). See also Duquesne Light Co. v. Barasch, 488 U.S. 200 (1989).

agency could face greater utility resistance to necessary changes in plans once remediation began. It asserted that altering the recovery expectations "will lead to significant delays in the completion of the highly beneficial MGP remedial program, as utilities seek to defer or avoid charges to their shareholders." <sup>94</sup>

In this context, according to utilities, delay can give rise to two categories of additional costs. The first is opportunity cost: the utility may not take advantage of an opportunity to partner with a developer and shed costs. The second is construction costs, where trying to remain within an annual budget may lead the utility to spread costs over several years, which can also entail additional costs. DEC also pointed out that current economic conditions are favorable for clean-up costs, making delay all the more undesirable. 95 The utilities supported the view that imposition of SIR cost sharing would cause them to constrain their remediation budgets and schedule clean-ups based upon annual budgets, impeding the aggressiveness of their response. DEC supported the utilities' conclusion that the imposition of cost sharing may well result in a decrease in the thoroughness and alacrity of the utilities' site investigation and remediation practice. The utilities' view is that the adoption of a generic rate mechanism denying the opportunity to recover all prudent SIR expenses would likely have the effect of restraining SIR expenditures and discouraging utilities from spending beyond the capped amounts in any given year. Remediation efforts could slow to stay within targets; the number of projects addressed by a utility in a given year could decline; schedules could be extended, delaying the completion of investigation and remediation at some sites. <sup>96</sup>

The utilities also made clear that their effective cooperation with DEC remediation oversight, and their timely and complete record of removal of contaminants, is directly related to full rate recovery. Faced with a rate recovery cap, or sharing the expenses with ratepayers, utilities will tailor their remediation efforts to stay below a cap or not to exceed a given year's allowance. As expressed by Con Edison's counsel, "...what strikes me as odd is the suggestion that somehow the utility should then ignore the cap or the target. That is the question that has been posed, okay. If the rate-making framework changes, why should you do anything different? I have to tell you I've sat in rate case proceedings for probably the last 10 years in a row where it's been pounded into the head of Con Edison: You see a budget you see a target, meet it, try and get in below it." <sup>97</sup>

<sup>&</sup>lt;sup>94</sup> DEC Letter to ALJ (July 11, 2011).

<sup>&</sup>lt;sup>95</sup> DEC Technical Conference Presentation, at 5.

<sup>&</sup>lt;sup>96</sup> Joint Utilities Initial Comments, at 7-8.

<sup>&</sup>lt;sup>97</sup> Tr., 218.

New York City also feared delay resulting from sharing. The City suggested the Commission provide greater cost oversight as a substitute for sharing, out of concern for the likely delaying effects of reducing utility recovery. Delay is of primary concern to the City, where the ongoing leaching of coal tar and other contaminants into nearby soils and groundwater, continuing contamination, is preventing the productive development and re-use of former sites and surrounding areas. <sup>98</sup>

I find persuasive the utilities' statements that sharing from dollar one or above a cap is likely to result in budget-induced delay in remediation. This perverse incentive effect is discussed below.

#### 3. The Incentive Issues Raised by Sharing

The Commission also stated its concern with the absence of a utility financial incentive to keep SIR expenses down. As long as the utility enjoys full rate recovery of all SIR expenses, it has no direct financial incentive to negotiate with DEC to choose the least costly alternative among remediation approaches. Once DEC has completed the investigation, considered alternatives, and ordered a remediation plan, the utilities also have no direct financial incentive to minimize the costs of implementation. The lack of incentive extends to the utility opportunity to seek contribution aggressively from potentially responsible parties or indemnification from insurers, and to maximize proceeds from sales of remediated property. New York utilities realize little or no financial gain from pursuing contribution because the proceeds generally are applied as offsets to SIR costs charged to ratepayers.

At issue is whether allocating a certain percentage of SIR costs to utility shareholders would create incentives for companies to conduct their investigation and remediation processes in a more timely and less costly manner than they do today. Multiple Intervenors and DOS urged that the utilities would manage SIR costs more effectively if financial incentives to do so existed. The Department of State ventured that utilities should serve the public interest by continuing to cooperate fully with the DEC and remediate the sites as quickly as feasible, in light of the DEC's conclusion that delays result in increased costs. Sharing, it argued, would provide a risk to the utilities that they would have to pay higher costs for the very delays they cause and therefore sharing SIR costs would provide an incentive for utilities to speed up remediation. Department of State and MI also offered cost sharing as a proxy for more intensive oversight by Department of Public Service Staff. They asserted that the complex technical nature of site remediation, the lack of expertise in this area on the part of

New York City, Initial Comments, at 3.

<sup>&</sup>lt;sup>99</sup> Tr., 49.

Staff, and the agency's resource constraints, make a financial incentive a more realistic and potentially effective policing mechanism than augmenting hands-on regulation. These parties are concerned with the difficulty in auditing utility performance, with rate case reviews limited to comparing proposed rate allowances to historic spending levels. In addition, reviews of SIR costs in rate cases may be years apart, subject to other rate case priorities and constrained Staff resources. The primary MI concern centered on the lack of any tangible financial incentive for utilities – any utility "skin in the game" – to minimize SIR costs particularly with respect to critical design or implementation of remedies chosen by DEC.

Multiple Intervenors sought modification of the rate treatment of SIR costs to better align the interests of utilities with minimizing these costs. In its view, some meaningful level of sharing would ensure that costs were minimized and reduce what it saw as inequities. <sup>100</sup> It foresaw that, bearing a share of the costs, utilities would develop new efficiencies to reduce overall remediation costs without sacrificing the speed or effectiveness of the effort. Multiple Intervenors relied on the Commission's reasoning in the January 2011 Niagara Mohawk electric rates determination (Case 10-E-0050), and analogized to other sharing regimens such as sharing of discounts provided under early flex-rate contracts. <sup>101</sup>

Multiple Intervenors also saw sharing as a means to reduce the need for PSC regulatory oversight and augment Staff's rate case review. Both MI and DOS critiqued the DPS expertise to assess the technical efficacy of environmental remediation, and pointed out that in rate case review often SIR issues got lost amidst other, more immediate and more costly rate concerns. In these parties' views, imposition of 10% of net SIR costs upon shareholders would provide utilities with the missing incentive to constrain costs, in a manner that no other approach was likely to.

The other incentive effect sought is through application of an annual cap on remediation spending; the utility that exceeds that annual cap would recover only a percentage of expenses over the cap. The difficulty is implementing this model on a generic basis is that the estimation process for SIR is extraordinarily difficult. Utility estimates of the scope and costs of site investigation and remediation are fraught with more than the usual amount of uncertainty, as discussed above. If, as is often the case, the utility underestimates the annual remediation costs, it will then be faced with choices as to how to proceed with completion of the remediation work for that year. Faced with only partial recovery, the utility may well choose to delay work until the following year or to expend less than is needed. Delay can lead to greater costs later in the process, or to additional spread of contaminants. Opportunities, such as cooperation with private

Multiple Intervenors Initial Comments, at 7.

<sup>&</sup>lt;sup>101</sup> Multiple Intervenors Initial Comments, at 11-12.

developers to share costs, may be lost. These factors indicate that a generic policy of establishing caps may in the end create perverse incentives to cut corners on or prolong remediation.

My conclusion from this examination of the current remediation process indicates that the utility practice generally is to remediate quickly and thoroughly in concert with DEC and without delaying tactics or prolonged litigation. Although DOS adduced past Commission incentive programs as precedents for denial of full recovery for SIR costs, these programs functioned very differently from those proposed here, and they are not convincing as precedents. Incentive programs such as those for customer service quality generally are designed to reward the utility for certain practices and provide negative financial consequences for failure to engage in those practices.

An incentive program presumably should allow recovery or provide a reward for good practice and deny it for bad. I am not persuaded that the cost sharing mechanisms proposed here would improve the quality or speed of remediation, although sharing would be likely to reduce the total costs of SIR. The utility simply loses some percentage of its expenses, regardless of the wisdom and alacrity of its MGP remediation program. It has no opportunity either to avoid that loss or realize a profit elsewhere, and the environmentally responsible utility is no more rewarded than the laggard. To the extent parties envision sharing as an incentive for utilities to negotiate rigorously on costs with DEC or to be more vigilant with respect to contractor procurement, a 10% blanket denial of recovery does not necessarily further those goals. They may be met more directly by the imposition of uniform reporting requirements and independent audits than by a partial – but untargeted – denial of cost recovery. Accordingly, I recommend against adoption of a generic sharing approach because it would create perverse incentives to delay or cut corners in remediation.

### 4. The Equity Issues Raised by Sharing

One of the Commission's concerns about the growing cost of investigation and remediation is the equity of the policy of burdening ratepayers with the entirety of these expenses. Moreover, at a time when both utilities and customers are taking austerity measures to constrain other costs, these costs are rising.

The expressed concerns include the unique circumstance that the expenses at issue were incurred to remediate pollution deposited at facilities in operation as much as 140 years ago. The customers who benefited from these plants are not the same as those who are required to foot the bill for the mopping up. Today's customers had no hand in the initial decisions on investment in MGP. These concerns raise a kind of intergenerational equity problem.

In addition, there is an imperfect match between those who benefit from today's costly environmental clean-up and those who pay the associated expenses. Former manufactured gas plant sites are scattered around the state, and all New Yorkers are reaping the health, environmental, and economic development benefits of their remediation. However, while most electric ratepayers contribute, New York Power Authority (NYPA) or former Long Island Lighting Company (LILCO) customers, for example, do not. Natural gas users contribute to the gas portion of the SIR bill, but non-gas users do not.

The utilities asserted equity considerations of their own: neither their shareholders nor executives bore responsibility for the 19<sup>th</sup> century manufactured gas industry, although by law they are the successors to those who did. Today however, they are required to remediate these contaminated sites thoroughly and expeditiously. They also cited the historic role of manufactured gas providing heat and light for customers' benefit at an earlier time, when it was both ubiquitous and state-of-the-art technology, long before the health and environmental costs were imagined. Utilities argued these benefits, and today's benefits from remediation, entitle them to cost recovery no less than for other utility services.

Finally, there are equity concerns to consider on behalf of the communities that these sites have been contaminating for a century or more. Many sites are in the heart of urban residential areas, exposing schools, churches, community centers, and homes to waste products harmful to human health and the environment. Indeed, DEC has established that of the 221 sites, 134 are located in urban residential areas and 67 are in potential environmental justice communities – that is, communities that may already bear a disproportionate share of environmental burdens. Assuring the fast and complete remediation of this contamination frees residents from potential health threats and allows much needed urban economic development to proceed.

Although the concerns about the ratepayers' burden are troubling, they do not appear to be more so by an order of magnitude than many other rate burdens. Ratepayers in New York have picked up the costs of restructuring the energy industry; of abandoned nuclear power plant construction; of changing environmental and health requirements for the provision of clean water; and of all manner of taxes. That future SIR expenses for almost all utility customers appear to be moderate in comparison also makes the ratepayer equity case somewhat less compelling.

On balance, these competing equity concerns have been weighed and resolved by Congress, the State Legislature, and the courts, in the construction and enforcement of the fabric of hazardous waste law apportioning the primary burden to potentially responsible parties, as broadly defined. The uneven distribution of that burden to ratepayers as opposed to private corporations or the polity as a whole is a source of inequity that can only be resolved by other

branches of State government, using avenues such as enlarging the state Superfund, environmental bonding, or other tax changes.

For the Commission to attempt to redress these inequities using a generic rate policy appears to create as many problems as it solves. Although the utilities undercut their own equity arguments when they threaten to slow down and penny-pinch any SIR expenses they may not recover from customers, this result has to be considered. The likelihood is that a generic policy requiring sharing or the establishment of a generic cap on annual recovery would disrupt the progress of the remediation program. This risk, in my view, is not worth the gain. In my balancing of the competing equities, the interests of the communities that have been burdened for a century with hazardous waste predominate and should not be jeopardized by balking at the cost of completing the remediation.

### D. The Automatic Adjustment Clause Option

National Fuel suggested the option of an automatic adjustment mechanism to permit utilities to recover all SIR costs on a current basis, subject to a prudence review. In its view, such an approach is appropriate to SIR costs, which are difficult to forecast and subject to constant change. An automatic adjustment provides for recovery of costs on a current basis, and National Fuel asserted it promotes timely and thorough clean-up without tying up utility capital that can be dedicated to other projects. It is also a method of cost recovery with which the Commission has an abundance of regulatory experience, assuring that it can readily be reviewed and audited in the ordinary course.

In response, Staff observed that the use of an automatic adjustment was contrary to the spirit of the Commission's inquiry into the equity and appropriateness of full recovery of SIR costs, and that its adoption on a generic basis would only make more difficult the crafting of SIR recovery mechanisms appropriate to the specific conditions of individual rate cases.

On balance, despite the convenience to utilities of a flow-through mechanism, this suggestion would move Commission practice away from consideration of the many alternative mechanisms for recovery and sharing that may be presented in future rate cases. The recommendation is that it be rejected.

### E. Insurance and Third-Party Recovery

Based on the information provided by the utilities, through 2010, third party reimbursements have offset SIR costs by 0.58% and insurance proceeds have offset these costs by 10.48% for a statewide total offset of 11.06%. Utilities responded to two Staff questions concerning insurance: whether the utility was seeking payment by insurance companies or third-

DPS reply to ALJ's post-technical conference question 3 (July 29, 2011).

party contribution related to each SIR site; and if so, the estimated of payments expected. Utilities also provided descriptions of the process of seeking reimbursement from insurance companies or third parties and an overview of current efforts to recover these costs. <sup>103</sup> While utility practice varies, the responses indicated that these sources of recompense have been aggressively pursued and are, in many cases, exhausted.

Con Edison has pursued insurance reimbursement systematically, and has litigated against insurers when denied coverage. The company has recovered insurance payments totaling \$52 million for losses for Superfund and MGP sites. Con Edison has some original policies dating back to the 1930s, which covered personal injury and property damage arising out of accidents. Modern policies contain exclusions and limitations, and cover claims only after Con Edison's self-insured retention (currently \$7.5 million per occurrence). Con Edison describes New York as a jurisdiction favorable to insurers, and the Court of Appeals decision in Consolidated Edison v. Allstate Insurance would seem to bear this out. 104 In that decision, the Court restricted the availability of SIR coverage under general liability insurance policies, by requiring that the insured carry the burden of proof that environmental pollution was caused by a fortuitous event. All three National Grid companies have evaluated the feasibility of legal action, and have pursued it accordingly. Niagara Mohawk has obtained contribution from PRPs where agreements have been reached; although as to some sites Niagara Mohawk is a contributor. Niagara Mohawk is in federal litigation against PRPs; some claims have been settled, others remain pending. As to KEDLI, it is currently seeking insurance cost recovery for several sites; it is seeking third party contribution for the Sag Harbor site. KEDNY is seeking insurance recovery for numerous sites. Both companies have litigated and settled with some liability insurers, and both have further actions pending. Pursuant to its current rate plan, KEDNY retains 10% of any recovery from insurance carriers or PRPs; if KEDNY sells any property on which SIR remediation has taken place, it credits after-tax gains to the total SIR costs for the specific site.

Multiple Intervenors recommended that the Commission allow utility shareholders to retain up to 10% of all insurance claims and third-party recoveries; however such sharing would only apply in conjunction with its recommended 90% ratepayer/10% shareholder SIR cost sharing mechanism. The DOS also suggested the Commission consider a California-style approach, in which the shareholders pick up a percentage of the SIR tab but retain some of the proceeds of third-party recovery and insurance. This approach, they argued, would provide

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Some utilities sought and obtained trade secret protection as to some of this data.

<sup>98</sup> N.Y.2d 208 (2002). See also, National Fuel Gas Distribution Corp. v. Public Serv. Commn., 16 N.Y.3d 360 (2011).

utilities a strong incentive to pursue all possible claims and recoveries aggressively. Multiple Intervenors also noted that such sharing on insurance claims and third-party recoveries, as well as on clean-up costs, is the current practice in California, New Hampshire, and Indiana.

In response, utilities noted that while they would likely have supported this approach in the early days of the MGP remediation program, their access to insurance and third-party reimbursement is largely exhausted, with some exceptions. <sup>105</sup> Indeed, some noted that even a partial retention of insurance proceeds over the entire course of the program might have netted them considerable revenues.

I am persuaded by the utility response. As a component of a sharing approach, MI's proposal might have been an equitable one early in the MGP remediation program. However, the bulk of the available insurance and third-party proceeds appears to have already been obtained. Almost all of these proceeds have been put to use in mitigating the recoverable expenses of SIR itself. These sources are sufficiently exhausted to be unavailable to most utilities to offset any cost sharing the Commission might choose to institute.

### F. Allocation among Ratepayers of SIR Costs

The Commission also instituted this proceeding to examine the methods for allocating SIR costs between gas and electric customers; for allocation of these costs among rate classifications; and for determining amortization periods. At present, each of these mechanisms is determined case by case. Several proposals for a uniform approach were examined in the course of this proceeding.

#### 1. Allocation of SIR Costs between Electric and Gas Ratepayers

Electric and gas utilities today allocate site remediation costs to electric and gas customers, while Con Edison also allocates some SIR costs to steam customers. Utilities each have their own allocation methodology. The current practice with respect to the allocation of costs to both electric and gas ratepayers is premised on the assumption that SIR costs, uniquely, are not naturally divisible among business entities based on the usual cost causation principles. Neither gas nor electric customers can be reasonably said to have caused the development of the MGP industry. Neither can be held especially responsible for the necessity of remediation of the resultant hazardous waste. Instead, each utility has an allocation formula built into rates,

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National Fuel Initial Comments, at 25.

depending on how it characterizes these costs, and each preferred to maintain its current allocation.  $^{106}$ 

However, in the interest of spreading these costs as widely as possible, Staff proposed to allocate these costs 100% to electric customers. Such an approach would permit the utilities to collect a contribution of SIR costs from all customers once, and not twice from a subset of customers. Billing electric customers only would ensure the broadest possible set of customers would be contributing to the recovery of SIR costs, although non-jurisdictional electric customers would still escape contribution, Staff noted.

The Joint Utilities opposed the adoption of this approach, noting that if all SIR costs were allocated to electric customers, some electric utilities would need to bill their customers for recovery of costs incurred by an unrelated gas utility; this would, in their view, unfairly overstate that electric utility's rates and bill amounts. The Joint Utilities stated further that there would be unnecessary and significant bill impacts among a combination utility's customers, even if the combination utility was simply reallocating its own SIR costs (and not those of a gas-only utility) among its customers.

Completely contrary to the idea of allocating all costs to electric customers, MI proposed allocating more SIR costs to gas customers. Stating that utilities' SIR costs relate primarily – if not exclusively – to prior MGP sites, MI asserted that the sites were operated by gas utilities and produced gas. Contamination of those sites, therefore, arose primarily from utility gas operations, and not from electric operations. It stated therefore that "consistent with cost-of-service principles, the customers' share of the cost of remediating contaminated sites should be allocated primarily to gas operations, subject to legitimate rate impact considerations." <sup>108</sup>

The Joint Utilities contest the historical cost causation argument. As Staff also argued, MGPs were used to produce gas so long ago that allocating costs to the customers who

As detailed by the White Paper, the electric and gas utilities allocate SIR costs to electric and gas (and in the case of Con Edison, steam) customers, using a variety of methods. Niagara Mohawk allocates costs between electric and gas on an 85%/15% basis. Central Hudson allocates costs between electric and gas customers using its common cost allocation factor, 85%/15% electric/gas. Con Edison and O&R allocate costs between customers using their administrative and general expense allocator, 78.7%/16.2%/5.1% electric/gas/steam for Con Edison and 70.75%/ 29.25% electric/gas for O&R. NYSEG and RG&E allocate all non-directly assignable SIR costs to customers based on plan allocation factors: 87.1%/12.9% electric/gas for NYSEG, and 66.4%/33.6% electric/gas for RG&E. Each utility prefers to retain its current allocation methodology (at 39-40).

Joint Utility Comments, at 46.

MI Initial Comments, at 29.

benefited directly from MGPs would be impractical. <sup>109</sup> Following traditional cost causation principles is likely impossible, even if desirable. Moreover, while manufactured gas in its infancy supplied gas for street lighting, the industry evolved and manufactured gas was later used for cooking and heating. In fact, it provided the same functions that today are served by both natural gas and electric power. Therefore, the assertion is flawed that gas customers should bear a greater burden because MGPs were replaced by gas utilities.

I recommend against a generic modification of the allocation of SIR costs between electric and gas ratepayers. On balance, there appears to be little advantage, and considerable disadvantage, to modifying generically the allocation methodology currently in place for each utility. However, by declining to act on a generic basis, the Commission preserves its option to so modify if appropriate in future rate cases.

### 2. Allocation of SIR Costs by Service Classification

The utilities also allocate contribution by service classification, and have used various methods, including allocation to transmission and distribution only, allocation by class throughput, or by customer classes based on Total Production, Transmission and Distribution Plant. Staff advocated allocation based on delivery service revenues, to level bill impacts among classifications. The other methods, Staff argued, either were related to usage or took into account many other factors, resulting in disparate bill impacts by classification. Staff also suggested the development of a SIR "tax" that would apply a fixed percentage rate to each customer's delivery bill, regardless of classification. Staff proposed modifying the service class allocation methodology for SIR costs going forward, without affecting recovery of expenses currently in rates, including those being amortized. Multiple Intervenors considered this proposal workable, but sought additional details concerning implementation and rate impacts.

Multiple Intervenors similarly proposed that SIR costs be assigned in a utility's cost-of-service study based on the delivery revenues for each class, and then treated as part of the utility's cost for future allocation, based on the assumption that the operation of an MGP facility is not part of the current cost of service. In its view, this leads to the conclusion that the fairest basis for allocation is delivery revenue, neutral as to all classes. The MI argument was that recovering costs on a volumetric basis would prejudice high load-factor customers, while a percustomer method would be inequitable to low load-factor users. Site investigation and

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White Paper, at 41.

These methods are detailed in the White Paper, at 42.

remediation costs do not vary based on current energy consumption or the total number of customers. 111

The Joint Utilities disagreed with the Staff premise that attributes SIR costs to non-current utility operations. The Joint Utilities stressed that SIR costs are a necessary and current expense obligation of the utilities, notwithstanding their historical origins. They concede that leveling impacts across customer classifications might have been worthwhile at the origin of the SIR program. However, since SIR costs are currently reflected in rates to all utility customers, adopting a new methodology would have bill impacts in the transition period. Staff agreed with the Joint Utilities that SIR expenses are current but the result of past events, and added that remediation of MGP sites is a societal concern and urged pursuit of allocating incremental SIR costs based on delivery service revenues going forward.

I conclude that the Staff proposal has potential to allocate SIR costs on a more level basis, isolating these costs from other, irrelevant considerations such as usage. However, on this record there is no information as to the rate and bill impacts of the transition to this approach, or as to any ratepayer benefits that might accrue from this change. I recommend that the Commission require Staff to follow up by generating additional information to serve as a basis for the Commission to consider adoption of its SIR "tax" proposal at a later date.

### G. Amortization of SIR Costs

The Commission has amortized SIR costs, deferring recovery to avoid excessive bill impacts in any given year. These deferral decisions have been made company-by-company. At issue is whether a uniform practice should now be adopted.

The Joint Utilities propounded three principles pertaining to the amortization of SIR costs: the longer SIR costs remain unrecovered, the higher the ultimate cost to customers; the longer SIR costs remain unrecovered, the greater the negative impact on utility cash flows and, thereby, on the financial metrics assessed by debt and equity investors leading to an increase in the cost of capital; and the longer SIR costs remain unrecovered, the greater the likelihood that the financial community will have concerns about not only the ultimate recovery of the SIR costs but other regulatory assets as well. <sup>113</sup>

Staff agreed generally with the principles set forth by the Joint Utilities and argued that these issues must be considered on a case by case basis by the Commission when determining an acceptable amortization period for recovery of SIR costs. Staff proposed

MI Initial Comments, at 32.

Joint Utilities Initial Comments, at 48.

<sup>&</sup>lt;sup>113</sup> Id., at 49.

adoption of a generic deferral policy to limit bill impacts of SIR costs to no more than 2% to 3% of delivery charges in any given year. The utilities expressed concern with this proposal, on the ground that the Commission should not prejudge the appropriate rate impacts in future cases. Rather, they asserted, the Commission should preserve its flexibility to allow a higher level of recovery if the circumstances of the specific utility make it advisable at the time of its rate case. In their view "the Commission should not preclude adopting a rate plan in an individual utility rate case that reflects a delivery service impact higher than 2-3 percent where, for example, the Commission finds the overall bill or rate impact to be reasonable along with a short amortization period for SIR costs to reduce the ultimate SIR costs to be recovered from customers and positively impact the utility's cash flow metrics." 114

My recommendation is that the Commission adopt the rebuttable presumption that SIR costs should not exceed 3% of customers' delivery bills. This presumption could be rebutted by a party filing demonstrating that a higher increase is advisable under the particular circumstances of that case, would shorten the time for paying off the SIR bill, would reduce the total amount to be borne for the program by ratepayers, or would not result in an unacceptable rate burden. The adoption of this presumption on a generic basis could simplify treatment of SIR costs in individual rate cases and signal the Commission's commitment to moderate the annual bill impacts of the remediation program.

### V. NON-RATE COST CONTROL MECHANISMS

### A. Recommendations for Additional Cost Control Mechanisms

Recognizing the Commission's concern for efficient and cost-effective SIR efforts, the White Paper supported MI's suggestion that there be periodic SIR cost audits, but made no recommendation as to cost responsibility for those audits. The Department of State also supported independent audits, notwithstanding its caution against employing audits as a substitute for cost sharing. Utilities did not object to periodic Staff or self-audits.

In addition, parties expressed concerns that, for most utilities, SIR cost reporting was not conducted annually. <sup>115</sup> Parties agreed that mechanisms should be put in place to ensure that SIR costs are reported annually, in order to improve the review of utility cost constraint practices and to facilitate consistent treatment of these costs across rate cases. The utilities offered to work collaboratively with Staff to develop such reporting requirements. In addition,

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Joint Utilities Initial Comments, at 50.

At least one utility, National Fuel, currently has an annual reporting requirement. National Fuel Initial Comments, at 8. *See* Case 08-G-1315, *Petition of National Fuel Gas for Authorization to Defer MGP Site Costs*, Order Granting Deferral (issued July 17, 2009).

the utilities noted that they meet regularly to discuss best practices, and suggested incorporating the results of this process into Commission review of remediation expenses.

Multiple Intervenors and DOS suggested that Staff be involved in the DEC decision- making process, to interject a higher level of cost-consciousness. This solution appealed to neither agency and is inconsistent with the statutory framework. The New York Environmental Conservation Law gives DEC the sole authority to order a potentially responsible party to develop, and to approve, a remediation program, and to implement such program within specific time limits. The New York Public Service Law gives the PSC exclusive ratemaking iurisdiction. 116 While voluntary interagency cooperation can always be productive, it is no substitute for the agencies' respective regulatory tools.

I recommend that the Commission require periodic, independent audits of SIR costs as a precondition to rate recovery. These audits should be operational, after-the-fact audits, reviewing contracting practices and contractor performance, among other things. The purpose of these audits is to supplement the rate case review of SIR costs with an independent, transparent, expert examination, not subject to the time and workforce pressures of a full rate proceeding. Such audits are necessary to increase Commission, consumer, and public confidence in the utility management of the enormous costs of hazardous waste remediation. I also recommend that, as a policy matter, these independent audits be at the expense of shareholders. Although the costs of such audits were not examined on the record in this proceeding, the utilities should willingly bear this relatively light burden of demonstrating their fiscal responsibility.

In addition, I recommend that generic annual reporting requirements be developed to facilitate Staff review of SIR costs and provide consistency across rate cases. The compilation of an inventory of least-cost practices and cost-effective remediation methods would also provide a valuable checklist for future rate case review of SIR practices. I recommend the Commission establish a short-term collaborative effort for parties to develop guidelines and time periods for the independent audits, to craft annual reporting requirements, and to establish a process for compiling an ongoing list of best practices.

<sup>&</sup>lt;sup>116</sup> See NY ECL §27-1313-3(a) and NY PSL §5.

#### VI. CONCLUSION

This record demonstrates the substantial financial burden placed on the shoulders of New Yorkers by the painstaking and thorough remediation of the contamination left by the manufactured gas industry. Utility estimates of potential future costs total between \$1.85 billion and \$3.6 billion.

The record includes calculations of present and forecasts of future bill impacts through the year 2027, assuming that the remediation process is likely to be completed ten years from now and that cost recovery is spread evenly over the next fifteen years. On balance, with the exception of two utilities, the impact on ratepayers is likely to be moderate, with the use of deferrals to soften the impact in any given year.

This record also indicates that since the 1990s New York's utilities, pursuant to the legal and regulatory authority, and under the direct supervision, of the New York State Department of Environmental Conservation as well as the New York State Department of Health, generally have been carrying out a responsible and meticulous investigation and clean-up of these contaminated sites. 117 Especially in light of the passage of time since the last of the MGP plants was closed – roughly 40 years – the health of New Yorkers and our environment, as well as the economic viability of dozens of communities, are the better for it. Both the utilities and DEC drew a direct link between the full recovery of remediation costs and the enthusiasm the companies generally have brought to this enormous project. Establishing a generic policy that treats SIR costs differently from other costs of doing utility business so as to bind future rate determinations risks adding to the costs – environmental, economic, and financial – of yet more delay in remediation. A generic change in rate recovery policy could hamper needed flexibility without a measurable gain in fairness to customers. Therefore I recommend that the Commission not adopt a generic policy at this time requiring sharing or reallocation of SIR costs between utility ratepayers and shareholders. Absent such a generic policy change, the Commission is always free to determine the appropriate rate treatment for SIR costs in specific rate cases and under the concrete conditions of specific utilities.

The advisability of leaving the Commission a free hand to adjust recovery for SIR to the circumstances of individual rate cases also informs my recommendation that no generic policy be adopted at this time as to reallocation between electric and gas customers. However, in the interests of fairness, I do recommend further investigation into the rate and bill consequences of the Staff "SIR tax" proposal to calculate contribution based on a set percentage of delivery

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This conclusion is without prejudice as to any rate case examination of the prudence of any specific utility's site investigation and remediation practices. As has been clear since the inception of this proceeding, utility prudence was not under examination.

rates across service classifications. I also recommend that the Commission adopt a rebuttable presumption for future rate cases that cost increases not push SIR charges beyond 3% of customers' total delivery bills.

In addition, I recommend the Commission establish additional rigorous and consistent cost monitoring by putting in place the following requirements for SIR cost recovery: (1) the utilities will submit periodic shareholder-funded independent audits; (2) utilities and Staff will develop uniform annual SIR reporting requirements; and (3) utilities will formalize best practices for SIR cost containment. To implement these measures, I recommend the Commission establish a short-term collaborative effort for the development of guidelines and time periods for the independent audits, to craft annual reporting requirements, and to establish a process for compiling an ongoing list of best practices.

Finally, I recommend that the Commission's Order call attention to the rising costs of MGP investigation and remediation and the resulting burden on the State's ratepayers. This burden is largely the result of the statutory allocation of the costs of remediating hazardous waste to potentially responsible parties. For private corporate parties, this allocation helps shield the public from the assumption of these expenses except under those extreme circumstances where DEC itself undertakes the site investigation and remediation. In the case of public utilities, however, ratepayers bear substantial responsibility for these costs. A larger public discussion of these concerns can be generated by the Commission order.

# DEC, Responses to DPS IRs 1 – 13, Exhibit B NYS's Approach to the Remediation of Former Manufactured Gas Plant Sites Map of Utility MGP Sites, Appendix E

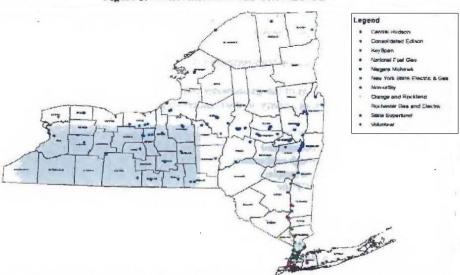


Figure 1: Distribution of MGP Sites in NYS

Note the distribution and concentration of MGPs in Metropolitan New York, the Hudson Valley and along the Erie Canal corridor, where population was concentrated in the late 1800s and early 1900s.

# DEC Inventory of Utility MGP Sites

Site Name	Site #	County	Type	Status*	Order*	Complete
<b>CENTRAL HUDSON GAS &amp; ELECT</b>	RIC (CH)	[7]			*See key e	nd of table
CH Beacon MGP	V00293	Dutchess	MGP	IRM complete/need IC/SMP	VCA	
CH Catskill Former MGP	C420027	Greene	MGP	RI ongoing	BCA 06	
CH North St. Kingston MGP	C356017	Ulster	MGP	RI ongoing	BCA 08	
CH Newburg MGP	336042	Orange	MGP	RA CP Fall 2010 - Need SMP/FER/EE	CO	
CH Bayeux St-Poughkeepsie MGP	314071	Dutchess	MGP	SC NFA March 2007	VCA	Υ
CH Laurel St-Poughkeepsie MGP	V00292	Dutchess	MGP	RA Complete 2008- Need FER/SMP/EE	VCA	
CH Water St -Poughkeepsie MGP	C314070	Dutchess	MGP	RI ongoing	BCA 04	
CON EDISON (CE)	[51]					
CE-E. 137th St Bronx Station	V00555	Bronx	Holder	SC ongoing	MVCA	
CE-E. 138th St Bronx Works	V00551	Bronx	MGP	SC ongoing	MVCA	
CE-E. 173rd StBronx Works	V00552	Bronx	MGP	Complete in SM - September 2009	MVCA	Υ
CE-E. 175th Street - Bronx Station	V00556	Bronx	Holder	SC ongoing	MVCA	
CE-Hunts Point MGP- Comp. Sta.	V00554	Bronx	MGP	SC planned off-site	MVCA	
CE-Kingsbridge Station	V00559	Bronx	Holder	SC NFA June 2005	MVCA	Υ
CE-Purdy St. Station	V00557	Bronx	Holder	RI ongoing	MVCA	
CE-Unionport Works	V00553	Bronx	MGP	RI ongoing	MVCA	
CE-Zerega Avenue Station	V00558	Bronx	Holder	SC ongoing	MVCA	
CE-E. 11th St. MGP	V00534	New York	MGP	RI ongoing	MVCA	
CE-E.14thSt Works - Generating Sta.	231007	New York	MGP	OU1 RI ongoing/OU2 E. River Ballfields in SM	MVCA	
Stuy Town Area	V00535			RI ongoing		
CE-E. 17th Street Station	V00541	New York	MGP	RI ongoing	MVCA	
CE-W. 18th Street Gas Works	V00530	New York	Holder	RI ongoing	MVCA	
CE-E. 19th Street Station	V00542	New York	MGP	RI ongoing	MVCA	
CE-E. 21st Street Works	V00536	New York	Holder	RI ongoing	MVCA	
CE-E. 32nd Street Station	V00543	New York	MGP	SC ongoing	MVCA	
CE-E. 39th Street Works	V00537	New York	Holder	SC NFA July 2008	MVCA	Υ
CE-W. 42nd Street Works Off-site	V00531	New York	MGP	Off-site RI ongoing	MVCA	
- On-Site (Riverplace I)	C231024			Complete COC issued		
- On-Site (Riverplace II) CE-W. 45th Street Gas Works	C231012 V00532	New York	MGP	Complete COC issued OU1-RI on going, OU2 - RI complete	MVCA	
CE-W. 58th Street Station	V00546	New York	MGP	SC NFA July 2005	MVCA	Υ
CE-W. 65th St. MGP	V00533	New York	Holder	SC NFA June 2005	MVCA	Ϋ́
CE-E. 99th Street Works	V00538	New York	MGP	RI ongoing	MVCA	•
CE-W. 108th Street Station	V00536	New York	MGP	RI ongoing	MVCA	
CE-W. 111th Street Works	V00545 V00539	New York	Holder	RI ongoing	MVCA	
CL W. III thi bullet Works	¥ 00337	TIOW TOIK	Holdel	ici ongonig	IVI V CA	

Site Name	Site #	County	Type	Status*	Order*	Complete
CE-W. 115th St. MGP	V00540	New York	MGP	RD ongoing	MVCA	
CE-W.132nd Street Station	V00547	New York	MGP	SC NFA March 2008	MVCA	Υ
CE-Broadway/Dyckman St Sta.	V00548	New York	Holder	SC NFA Sept. 2005	MVCA	Υ
<b>CE-Canal Street Works</b>	V00529	New York	MGP	SC NFA March 2009	MVCA	Υ
<b>CE-Cross/Little Water Street HS</b>	V00549	New York	Holder	SC NFA July 2008	MVCA	Υ
<b>CE-Hester Street Gas Works</b>	V00528	New York	MGP	SC CP March 2009 - Need EE/SMP	MVCA	Υ
<b>CE-Roosevelt Street Station</b>	V00550	New York	Holder	SC NFA March 2008	MVCA	Υ
<b>CE-286 Water Street Site</b>	V00527	New York	MGP	SC NFA January 2010	MVCA	Υ
CE-York Ave Station	V00544	New York	Holder	SC ongoing/need resolve access issues	MVCA	
CE-Astoria MGP	244012	Queens	Holder	RI planned 2011	MVCA	
CE-Farrington Street - Holder	241034	Queens	MGP	IRM complete/Need IC	MVCA	
CE-Farrington Street MGP	V00560	Queens	MGP	SC ongoing	MVCA	
CE-Greenburgh - Greenburgh HS	V00572	Westchester	Holder	SC NFA April 2009	MVCA	Υ
CE-Hastings(V) MGP	V00728	Westchester	MGP	SC ongoing	MVCA	
CE-Mt.Vernon (C) MGP	V00569	Westchester	MGP	RA ongoing	MVCA	
CE-New Rochelle (C) - Cedar St	V00570	Westchester	MGP	SC ongoing	MVCA	
CE-Ossining (C) - Ossining Works	V00568	Westchester	MGP	RI on going	MVCA	
CE-Peekskill (V) - Central Ave	V00567	Westchester	MGP	RI on going	MVCA	
CE-Peekskill (V) - Pemart Ave	V00566	Westchester	MGP	RI on going	MVCA	
CE-Pelham MGP Off-site (Creek)	V00565	Westchester	MGP	RI ongoing	MVCA	
On-site (Pelham Plaza)	V00110			RA Complete/Need SMP, FER, IC		
CE-Rye (V) - Rye Gas Works	V00571	Westchester	MGP	SC ongoing	MVCA	
CE-Tarrytown (V) MGP	C360064	Westchester	MGP	Complete in SM - COC issued 6/27/07	MVCA	Y
CE-White Plains (C) MGP	V00438	Westchester	MGP	RA complete need SMP/FER/EE	MVCA	
CE-Yonkers (C) - Ludlow St. MGP	V00562	Westchester	MGP	SC ongoing	MVCA	
CE-Yonkers (C)-Nepperhan Ave	V00563	Westchester	MGP	SC NFA June 2005	MVCA	Υ
CE-Yonkers (C) - Saw Mill River	V00573	Westchester	Holder	SC ongoing	MVCA	
CE-Yonkers (C) -Woodworth Ave	V00564	Westchester	MGP	SC ongoing	MVCA	
NATIONAL GRID - KEYSPAN	[43]					
Region 1 (Nassau and Suffolk Counti	es) MGP Relate	ed sites = 13 sites				
K- Bayshore	152172	Suffolk	MGP	RD/RA Work ongoing at multiple Ous	CO	
K - Babylon	152181	Suffolk	MGP	RI ongoing	CO	
K-Brentwood Waste Disposal Site	152212	Suffolk	PWD1	SC/IRM - No SM Req'd Complete October 2009	CO	Y
K - Garden City	130105	Nassau	MGP	SC NFA-February 2002	VCA	$\mathbf{Y}$
K-Garden City: Stewart Ave	130120	Nassau	Holder	SC planned/Soil removal completed	CO	

Site Name	Site #	County	Type	Status*	Order*	Complete
K- Glen Cove	130089	Nassau	MGP	RA ongoing	CO	
K- Halesite	152173	Suffolk	MGP	RA CP 6/09 - Need SMP/FER/EE	CO	
K- Hempstead - Intersection	130086	Nassau	MGP	RD ongoing/RA planned 2011	CO	
K- Hempstead - Clinton Rd.	130106	Nassau	MGP	SC Complete in SM-Need SMP	VCA99	Y
K- Inwood Holder Site	130121	Nassau	Holder	RI ongoing	CO	
K-Long Beach Holder Station	130122	Nassau	Holder	SC CP NFA 1/2010	CO	Y
K - Patchogue	152182	Suffolk	MGP	ROD issued 3/2011 RD to proceed	CO	
K- Sag Harbor	152159	Suffolk	MGP	RACP 5/09 - Need SMP/FER/EE	CO	
Region 2 (New York City) Reg 2 = 30	sites					
K - Bay Ridge Station A&B	224058	Kings	Holder	SC planned	CO	
K - Belmont Holder	224060	Kings	Holder	SC planned	CO	
K - Brooklyn Gas Light MGP	224048	Kings	MGP	SC ongoing	CO	
K-Carroll Gardens MGP Parcels I-III	C224012			RD ongoing	BCA	
(aka Citizens/ Public Place) Parcel IV	224012	Kings	MGP	RD ongoing	СО	
K - Coney Island	224026	Kings	MGP	complete Need SMP/FER/DR	СО	
K - Dangman Park MGP	224047	Kings	MGP	RI onogoing	CO	
K - Equity Works MGP	224050	Kings	MGP	SC ongoing	CO	
K - Flatbush Station A&B	224061	Kings	Holder	SC ongoing	CO	
K - Front Street Holder Station	224063	Kings	Holder	SCWP approved/need access to start	CO	
K - Fulton Works MGP	224051	Kings	MGP	RI ongoing	CO	
Gowanus Canal	224133	Kings		NPL Site - Nationl Grid is a PRP	await EPA	order
K - Greenpoint Works MGP	224052	Kings	MGP	Shoreline RI ongoing	CO	
K - Keap Street Station	224064	Kings	Holder	SC NFA March 2010	CO	Y
K - Kings Co. Works MGP	224056	Kings	MGP	SC planned	CO	
K - Metropolitan Works MGP	224046	Kings	MGP	RI ongoing	CO	
K - Nassau Works MGP (BNY13)	224019A	Kings	MGP	RI ongoing	CO	
Newtown/Elmhurst Holder	V00406	Queens	Holder	Complete in SM	CO	Y
K - Peoples Works MGP	224053	Kings	MGP	SC ongoing	CO	
K - Plymouth Station	224065	Kings	Holder	SC planned	CO	
K - Rutledge Station	224066	Kings	Holder	SC ongoing	CO	
K - Scholes Street Station	224067	Kings	Holder	SC planned	CO	
K - Skillman Station	224068	Kings	Holder	SC ongoing	CO	
K-Union Station(Citizen's Branch) HS	224054	Kings	Holder	SC planned	CO	
K - Williamsburg Works MGP	224055	Kings	MGP	RI ongoing	CO	

Site Name	Site #	County	Type	Status*	Order*	Complete
K - Wythe Ave Station	224069	Kings	Holder	SC planned	CO	
K - Far Rockaway MGP	241032	Queens	MGP	RI ongoing	CO	
K - Jamaica Holder Station	241062	Queens	Holder	SC planned	CO	
K - Jamaica Gas Light Co.MGP	241063	Queens	MGP	SC planned	CO	
K- Ravenswood	V00368	Queens	MGP	Need order for additional work		
K- Rockaway Park	241029	Queens	MGP	RA ongoing	CO	
K- Clifton	243023	Richmond	MGP	OU1 RA CP/OU2 RD ongoing		
NATIONAL FUEL GAS	[10]					
Fmr Buffalo Service Station	C915194	Erie	MGP	Onsite by BCP Vol. COC 11/2006	BCA	
Fmr Buffalo Service Station - Offsite	V00362		MGP	Off-site RIWP awaited	VCA	
Buffalo (C) - Iroquois Gas MGP	915141	Erie	MGP	Complete in SM	CO	$\mathbf{Y}$
Dunkirk MGP	907035	Chautauqua	MGP	SC ongoing	CO	
Hornell MGP	851032	Steuben	MGP	SC planned	CO	
Jamestown MGP	907036	Chautauqua	MGP	Reviewing NFG responsibility	Need	
Mineral Springs MGP-West Seneca (T)	V00195	Erie	MGP	Complete in SM	VCA	Y
Niagara Falls	932147	Niagara	MGP	NFG liability report under review	Need	
Salamanca MGP	905035	Cattaraugus	MGP	NFG liability report under review	Need	
Tonawanda (C) - Former Gastown MGP	915171	Erie	MGP	RD ongoing	CO	
NEW YORK STATE ELECTRIC & G	A [38]					
NYEG-Goshen MGP	336046	Orange	MGP	RI ongoing	MCO	
NYEG-Oneonta	439001	Otsego	MGP	RA complete/ Need Easement	MCO	
NYEG-Plattsburgh - Saranac St.	510007	Clinton	MGP	OU1RAongoing/OU2 RI ongoing	MCO	
NYEG-Plattsburgh - Bridge St.	510016	Clinton	MGP	Complete in SM. Need deed restrict.	MCO	Y
NYEG-Mechanicville - Central Ave.	546033	Saratoga	MGP	OU1 & OU2 RA CP nedd FER/SMP/EE	MCO	
NYEG-Mechanicville - Coons Crossing	546034	Saratoga	Other	RIWP 2011 MGP disposal site	MCO	
NYEG-Granville	558021	Washington	MGP	RI ongoing	MCO	
NYEG-Waterville	633041	Oneida	MGP	Complete in SM. Need deed restrict.	MCO	Y
NYEG-Binghamton - Court St.	704031	Broome	MGP	RI ongoing/multiple IRMs comp.	CO	
Washington Street Former MGP Site	C704046	Broome	MGP	RA CP/COC by 12/2011	BCA	
NYEG-Binghamton - Johnson City		Broome	Other	Disposal from Court St Adding to CO	Need	
NYEG-Auburn - Clark Street	706008	Cayuga	MGP	RD ongoing	MCO	
NYEG-Auburn - Green Street	706009	Cayuga	MGP	RIWP 2012	MCO	
NYEG-Auburn - McMaster Street	706010	Cayuga	MGP	RI RD ongoing	MCO	
NYEG-Norwich	709011	Chenango	MGP	RA ongoing	MCO	

Site Name	Site #	County	Type	Status*	Order*	Complete
NYEG-Cortland - Homer	712005	Cortland	MGP	RD ongoing	MCO	-
NYEG-Cortland Remote Holder	722012	Cortland	Holder	RD ongoing	MCO	
NYEG-Owego Coal Gas	754008	Tioga	MGP	Complete in SM. Reclassed 2to4	MCO	Y
NYEG-Ithaca - Cayuga Inlet	755007	Tompkins	Other	Tar handling facility- NFA ROD March 2003	MCO	Y
NYEG-Ithaca - Court St MGP:	755008	Tompkins	MGP	OU1 RA CP/OU2 offsite RI - ROD 3/2011	MCO	
NYEG-Ithaca - First St.	755006	Tompkins	MGP	ROD issued 3/2011 RD to proceed	MCO	
NYEG-Elmira - Madison Ave.	808018	Chemung	MGP	RD ongoing	MCO	
NYEG-Elmira - Water St.	808025	Chemung	MGP	RIWP 2011	MCO	
NYEG-Dansville	826012	Livingston	MGP	OU1 RD/OU2 offsite RI -Both ongoing	MCO	
NYEG-Geneva - Wadsworth St.	835015	Ontario	Holder	RD start awaited	MCO	
NYEG-Geneva - Border City	850008	Seneca	MGP	RD ongoing	MCO	
NYEG-Seneca Falls	850010	Seneca	MGP	RI ongoing	MCO	
NYEG-Waterloo - East Main St.	850011	Seneca	Holder	SC NFA August 2004	MCO	Y
NYEG-Corning MGP		Steuben	MGP	Phase I ongoing to determine if a site	Need	
NYEG-Clyde	859019	Wayne	MGP	RIWP 2011	MCO	
NYEG-Lyons	859020	Wayne	MGP	RIWP 2011	MCO	
NYEG-Newark	859021	Wayne	MGP	RI ongoing	MCO	
NYEG-Palmyra	859022	Wayne	MGP	RI ongoing	MCO	
NYEG-Penn Yan - Jackson Street	862008	Yates	MGP	RO issued 3/2011 NFA Need SMP/EE	MCO	
NYEG-Penn Yan - Water Street	862009	Yates	MGP	RI ongoing	MCO	
NYEG-Lockport - Transit Road	932098	Niagara	Holder	RD ongoing	MCO	
NYEG-Lockport - State Road	932109	Niagara	MGP	CP in SM September 2010	MCO	Υ
NYEG-Warsaw	961007	Wyoming	MGP	Complete NFA ROD 3/01	MCO	Y
NATIONAL GRID - NIAGARA MO	OHA (NM) [5	4]				
NM-Albany - Arch St.	V00466	Albany	MGP	SC ongoing/Need SMP and Easement	MVCO	
NM-Altamont	V00478	Albany	MGP	RSR NFA May 2005	MVCO	Y
NM-Cohoes - Whitehall St.	V00468	Albany	MGP	RI ongoing	MVCO	
NM-Cohoes- Sargent St. MGP	V00729	Albany	MGP	Added to VCO 9/09 - SC ongoing	MVCO	
NM-North Albany	401040	Albany	MGP	RI ongoing	MCO	
NM-Watervliet - 5th St	V00485	Albany	MGP	RI ongoing	MVCO	
NM-Hudson MGP	411005	Columbia	MGP	OU1 RA complete/OU2 River RI ongoing	MCO	
NM-Malone - Amsden St.	V00469	Franklin	MGP	RI planned 2011	MVCO	
NM-Gloversville - Hill St.	518021	Fulton	MGP	RI ongoing	MCO	
NM-Gloversville -Washington St.	V00476	Fulton	MGP	RI/IRM ongoing	MVCO	
NM-Johnstown	518020	Fulton	MGP	NFA ROD March 2010 Need SMP/EE	MCO	

Site Name	Site #	County	Type	Status*	Order*	Complete
NM-Herkimer - Holder	622020	Herkimer	HS	SC NFA June 1997	MCO	Y
NM-Herkimer - Smith St.	V00471	Herkimer	MGP	RI ongoing	MVCO	
NM-Ilion	622019	Herkimer	MGP	ROD 3/2011 RD awaited	MCO	
NM-Little Falls - E. Mill St.	V00470	Herkimer	MGP	RA complete - Need SMP/FER/IC	MVCO	
NM-Little Falls - Loomis Isl.		Herkimer	HS		Amend VC	O to add
NM-Mohawk	V00480	Herkimer	MGP	SC NFA December 2007	MVCO	Y
NM-Watertown - Engine St.	623011	Jefferson	MGP	RD ongoing	MCO	
NM-Watertown - Anthony St.	V00473	Jefferson	MGP	RI ongoing	MVCO	
NM-Canastota	V00477	Madison	MGP	RIWP due 2011	MVCO	
NM-Oneida - 141 Cedar St.	V00224	Madison	MGP	Complete in SM	MVCO	
NM-Oneida - Sconondoa St.	727008	Madison	MGP	RA under way	MCO	
NM-Amsterdam -River Link Pk	V00367	Montgomery	MGP	OU1 Complete/OU2 RI ongoing	VCA	
NM-Canajoharie Holder	429006	Montgomery	HS	SC NFA January 2006	MCO	Y
NM-Fort Plain - Hancock St.	429007	Montgomery	MGP	RA ongoing	MCO	
NM-Rome - Jay/Madison	633042	Oneida	MGP	RI ongoing	MCO	
NM-Rome - Kingsley Ave.	633043	Oneida	MGP	Ongoing: OU1 RA/ OU2 RA	MCO	
NM-Utica - Harbor Point	633021	Oneida	MGP	Multiple OUs ongoing	CO	
NM-Syracuse - Hiawatha Blvd.	734059	Onondaga	MGP	RD ongoing	MCO	
NM-Syracuse - Erie Blvd.	734060	Onondaga	MGP	RI ongoing	MCO	
NM-Albion	837012	Orleans	MGP	ROD 3/2010 Need SMP/EE	MCO	
NM-Fulton	738034	Oswego	MGP	RD ongoing	MCO	
NM-Fulton - Ontario St.	V00484	Oswego	MGP	RIWP due 2011	MVCO	
NM-Oswego - Holder site	738035	Oswego	HS	NFA April 1998	MCO	$\mathbf{Y}$
NM-Oswego - W. Utica St.	V00481	Oswego	MGP	RI ongoing	MVCO	
NM-Cherry Valley	V00486	Otsego	MGP	RSR NFA May 2005	MVCO	$\mathbf{Y}$
NM-Troy - Water St.	442029	Rensselaer	MGP	RD ongoing/ ROD amendment 3/2010	MCO	
NM-Troy - Water St. OU3	442029A	Rensselaer	MGP	Complete in SM - need deed restriction	MCO	Y
NM-Troy - Smith St.	442030	Rensselaer	MGP	OU1 RD ongoing/Ous 2&3 ROD 3/2011 RD awaited	MCO	
NM-Troy - Jefferson Street	V00483	Rensselaer	HS	SC NFA - August 2009	MVCO	Y
NM-Troy - Liberty Street	V00482	Rensselaer	MGP	RI ongoing	MVCO	
NM-Rensselaer	V00488	Rensselaer	MGP	RI ongoing	MVCO	
NM-Ballston Spa	V00487	Saratoga	MGP	RIWP due 2011	MVCO	
NM-Saratoga Springs - Lake Ave	V00475	Saratoga	MGP	RA complete - Need DR filed	MVCO	
NM-Saratoga Springs -Excelsior	546015	Saratoga	MGP	OU1 RA complete/OU2 offsite RI ongoing	EPA CO	
NM-Schenectady - Seneca St.	447025	Schenectady	HS	Complete in SM	MCO	$\mathbf{Y}$

Site Name	Site #	County	Type	Status*	Order*	Complete
NM-Schenectady - Broadway	447026	Schenectady	MGP	RD ongoing	MCO	
NM-Schenectady -Clinton	V00474	Schenectady	MGP	RI ongoing	MVCO	
NM-Ogdensburg	V00479	St. Lawrence	MGP	RD start awaited	MVCO	
NM-Glens Falls - Mohican St.	557016	Warren	MGP	OU1 RD ongoing / OU2 RI ongoing	MCO	
NM-Fort Edward - Canal St.	V00472	Washington	MGP	IRM to complete ongoing	MVCO	
NM-Whitehall	V00467	Washington	MGP	RI ongoing	MVCO	
NM-Attica	V00489	Wyoming	MGP	SC NFA- December 2006	MVCO	Y
ORANGE & ROCKLAND (OR)	[7]					
OR-Haverstraw - 93B Maple	344044	Rockland	MGP	Complete in SM	MCO	Y
OR-Haverstraw - Clove & Maple	344049	Rockland	MGP	OU1 ROD 3/2011/OU2 RI ongoing	MCO	
OR-Middletown - Fulton Ave.	336030	Orange	MGP	RI on going	MCO	
OR-Middletown - Genung Ave.	336050	Orange	MGP	ROD issued/RD ongoing	MCO	
OR-Nyack	344046	Rockland	MGP	OU1 RA complete/OU2 River ROD 3/2011 await I	RD st CO	
OR-Port Jervis	336049	Orange	MGP	RD ongoing	MCO	
OR-Suffern	344045	Rockland	MGP	RI ongoing	MCO	
ROCHESTER GAS & ELECTRIC (F	RG [11]					
RGE-Brockport - Erie & Perry Sts	V00301	Monroe	MGP	RI ongoing	MVCA	
RGE-Canandaigua - Clark Street	V00591	Ontario	MGP	RA complete Need SMP/FER/DR	MVCA	
RGE-Canandaigua-South Main St.	V00595	Ontario	MGP	RI ongoing	MVCA	
RGE-Genneseo- Court St MGP	V00730	Monroe	MGP	Amend VCA to Add	Need	
RGE-Genneseo- Park St. MGP	V00731	Monroe	MGP	Amend VCA to Add	Need	
RGE-Pavilion - Ellicott Street Road	V00592	Genesee	MGP	SCWP due 2013	MVCA	
RGE-Rochester - Canal Street	V00594	Monroe	MGP	SC ongoing	MVCA	
RGE-Rochester - East Station	V00358	Monroe	MGP	RI ongoing/Major IRMs ongoing&complete	MVCA	
RGE-Rochester - Front Street	V00073	Monroe	MGP	RI ongoing	MVCA	
RGE-Brewer Street	V00214	Monroe	other	RA substantially complete	MVCA	
RGE-Rochester - West Station	V00593	Monroe	MGP	RI ongoing	MVCA	
OTHER IDENTIFIED AND SUSPEC	CT1 [28]					
Cold Spring MGP	340026	Putnam	MGP	Have Referral for RD/RA	SSF	
Fourth St MGP	915167	Erie	MGP	Construction Complete in SM	SSF	Y
Westfield MGP	907037	Chautauqua	MGP	SC Needed	No	
Batavia MGP	819019	Genesee	MGP	SC Needed	No	
Saugerties MGP	356018	Ulster	MGP	SC under review	No	
College Point-India RubberComb	2	Queens	Holder	SC Needed	No	
Remote Holder, Staten Island	2	Richmond	Holder	SC Needed	No	

Site Name	Site #	County	Type	Status*	Order*	Complete
Albany Remote holder	4	Albany	Holder	SC Needed	No	
Le Roy	819020	Genessee	MGP	SC Needed	No	
Corning	851035	Steuben	MGP	SC Needed	No	
Medina	837017	Orleans	MGP	SC Needed	No	
Clifton Springs	835023	Ontario	MGP	SC Needed	No	
Watkins Glenn	849005	Schuyler	MGP	SC Needed	No	
Hunter's Point	2	Queens	MGP	SC Needed	No	
Hillburn	3	Rockland	MGP	SC Needed	No	
Bath	851036	Steuben	MGP	SC Needed	No	
Waverly	754018	Tioga	MGP	SC Needed	No	
Rockland Print Works	3	Rockland	MGP	SC Needed	No	
Cooperstown-Hotel Fennimore	4	Otsego	MGP	SC Needed	No	
Delhi	4	Delaware	MGP	SC Needed	No	
Halcolm Steel	7	Onondaga	MGP	SC Needed	No	
Rhinebeck	3	Dutchess	MGP	SC Needed	No	
Ellenville	3	Ulster	MGP	SC Needed	No	
Hoosick Falls	4	Rensselaer	MGP	SC Needed	No	
Cooperstown	4	Otsego	MGP	SC Needed	No	
Vassar	3	Dutchess	MGP	SC Needed	No	
New York Central Blau Gas	4	Albany	MGP	SC Needed	No	
				NFA = No Further Action	TOTAL	43
CO= CONSENTORDER				SC = Site Characterizaton		
MCO = MULTI-SITE CO				RI = RI Remedial investigation then remedy selection		
VCA=VOLUNTARY CLEANUP AG	REEMENT			RD = design of the remedy		
MVCA = MULTI-SITE VCA				RA = construction of the remedy		
MVCO=MULTI-SITE VOLUNTARY	CLEANUP OR	DER		SM = site management (O&M)		
BCA=BROWNFIELD CLEANUP AGREEMENT				SMP = site management plan		
EPA = EPA Consent Order				FER = Final Engineering report		
				EE=Env. Easement		
Y = sites whch are complete or after in	vestigation requi	ed no further action		DR = deed restriction		
				CP = complete		

### New York State Department of Environmental Conservation

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July 22, 2011

Via E-mail

Hon. Eleanor Stein Administrative Law Judge New York State Department of Public Service Three Empire State Plaza Albany, New York 12223-1350

Re: Case 11-M-0034 – Proceeding on Motion of the Commission to Commence a Review and Evaluation of the Treatment of the State's Regulated Utilities' Site Investigation and Remediation (SIR) Costs

### Dear Judge Stein:

This letter transmits the responses of the New York State Department of Environmental Conservation (DEC) to your question on the differences between DEC's list of sites and the utilities' list. The discrepancies are minor, and are between DEC's listing and those of National Grid and National Fuel Gas. The discrepancies do not reflect actual inconsistencies, but rather differences in the way sites are described, or classified. In particular, the following sites fall into this category:

### National Grid:

Bellmore Hortonsphere<sup>1</sup> DEC A1-0595-08-07 East Hampton Gasoline Vaporization Fac. DEC A1-0595-08-07 East Hampton Hortonsphere DEC A1-0595-08-07 Glenwood Landing Holder DEC R1-0001-01-01 Lynbrook Hortonsphere DEC A1-0595-08-07 Manhasset Hortonsphere DEC A1-0595-08-07 Oyster Bay Hortonsphere DEC A1-0595-08-07 Pinelawn/Farmingdale Hortonsphere DEC A1-0595-08-07 Port Jefferson Hortonsphere DEC A1-0595-08-07 Riverhead Hortonsphere DEC A1-0595-08-07

A Hortonsphere is a gas holding tank, used to store gas, rather than in connection with the manufacture of gas.

Saltaire Acetylene Gas Facility Southold Acetylene Gas Facility DEC A1-0595-08-07 DEC A1-0595-08-07

The reason the above sites are on NG's list, but not DEC's, is that DEC does not consider them to be MGP sites. They are, however SIR sites for which NG is responsible.

The following 2 sites are simply known by different names in DEC's as opposed to NG's records. DEC's records refer to the Newtown Creek site as Greenpoint, and to the Edgemere site as Newtown/Elmhurst.

Newtown Creek MGP

NPL Site

Edgemere

DEC R2-0330-98-01

### National Fuel Gas

The site referred to on DEC's list as "Buffalo (C) Iroquois Gas MGP" is labeled by NFG "Westwood Pharmaceuticals."

### Conclusion

Based on the responses to DEC's request for information, the above identifies and explains the discrepancies in the parties' listings. DEC believes that with these clarifications, DEC's existing list is accurate. Any party may contact the undersigned if there is a perceived need for clarification or further refinement of these listings.

Sincerely,

David H. Keehn Associate Attorney

ec: Secretary Brilling

all parties

Program No.	Program Facility Name	Site Class	Program Type	Address	Locality	ZIP Code	UTM East	UTM North	PEJA*
V00527	CE - 286 Water St. Site	С	VCP	312 Water Street	New York	10038	584337	4506999	N
V00548	CE - Broadway /Dyckman St. Station	С	VCP	12 Dongan Place	New York	10040	590224	4524184	Υ
V00529	CE - Canal St. Works	С	VCP	Canal Street	New York	10013	584464	4507986	Υ
V00567	CE - Central Ave-Peekskill MGP	Α	VCP	900 Central Ave & 901 Main St	Peekskill	10566	590350	4571535	Υ
V00545	CE - E. 108th St. Station	Α	VCP	108th St. West of First Ave.	New York	10029	589606	4516065	Υ
V00539	CE - E. 111th St. Works	Α	VCP	East 110th - East 112th Sts.	New York	10029	589565	4516301	Υ
V00534	CE - E. 11th St. MGP	Α	VCP	East 11th - East 13th Sts.	New York	10029	586639	4508893	Υ
V00535	CE - E. 14th St. (StuyTown) Works	Α	VCP	East 14th - East 16th Sts.	New York	10009	586443	4509196	N
V00556	CE - E. 175th St. Station	Α	VCP	1815 - 1845 Webster Ave.	Bronx	10457	592543	4522283	Υ
V00541	CE - E. 17th St. Station	Α	VCP	East 17th - East 18th Sts.	New York	10009	586480	4509442	N
V00542	CE - E. 19th St. Station	Α	VCP	524 E. 19th St.	New York	10009	586354	4509600	N
V00536	CE - E. 21st St. Works	Α	VCP	East 20th - East 22nd Sts.	New York	10010	586342	4509818	N
V00543	CE - E. 32nd St. Station	Α	VCP	East 32nd - East 33rd Sts.	New York	10016	586650	4510699	Υ
V00538	CE - E. 99th St. Works	Α	VCP	East 98th - East 99th Sts.	New York	10029	589016	4515438	Υ
241034	CE - Farrington St. Holder	Α	HW	Farrington Street at 32nd Street	Flushing	11354	598511	4513662	Υ
V00572	CE - Greenburgh HS	С	VCP	469-499 Tarrytown Road	Greenburgh (T)	10555	600743	4544217	Υ
V00728	CE - Hastings Gas Works	Α	VCP	8-12 Washington Avenue	Hastings-on-Hudso	10706	593885	4538535	Υ
V00528	CE - Hester St. Gas Works	Α	VCP	Hester Street	New York	10013	584524	4507979	Υ
V00569	CE - Mt.Vernon MGP	Α	VCP	334-360 South 7th Ave.'s	Mount Vernon	10550	597901	4528455	Υ
V00566	CE - Pemart Ave-Peekskill MGP	Α	VCP	189-199 North Water Sts.	Peekskill	11111	589494	4571579	Υ
V00557	CE - Purdy St. Station	Α	VCP	2155 St. Raymond Ave.	Bronx	10462	596594	4521477	N
V00550	CE - Roosevelt St. Station	С	VCP	Pearl St. between Park Row & South St.	New York	10038	584504	4507288	N
V00571	CE - Rye (V) MGP	Α	VCP	Section 3 Block 2 Lots 67-70	Rye	10700	609939	4537299	N
C360064	CE - Tarrytown MGP	С	BCP	129 West Main Street	Tarrytown	10591	595085	4548089	N
V00547	CE - W. 132nd St. Station	С	VCP	12th Ave. between W.131st - W. 133rd Sts.	New York	10027	587850	4519136	Υ
V00530	CE - W. 18th St. Gas Works	Α	VCP	West 16th - West 20th Sts.	New York	10011	583806	4510935	Υ
V00531	CE - W. 42nd St. Gas Works	Α	VCP	640 W 42nd Street	New York	10036	584414	4512715	N
V00546	CE - W. 58th St. Station	С	VCP	11th Ave. between W.58th - W. 59th Sts.	New York	10019	585256	4513799	Υ
V00533	CE - W. 65th St. MGP	С	VCP	West 65th - West 66th Sts.	New York	10023	585561	4514278	Υ
V00544	CE - York Ave Station	Α	VCP	York Ave. between 61st & 63rd Sts.	New York	10021	587870	4512687	N
V00558	CE - Zerega Ave. Station	Α	VCP	Zerega Ave. between Blackrock & Watson Ave's	Bronx	10462	597388	4520532	N
V00562	CE- Ludlow St-Yonkers MGP	Α	VCP	162 Downing Street	Yonkers	10703	592286	4531043	Υ
V00563	CE -Nepperhan Ave-Yonkers MGP	С	VCP	7-11 Moquette Row North	Yonkers	10566	593907	4532988	Υ
V00570	CE-Cedar St MGP New Rochelle	Α	VCP	One Ramada Plaza	New Rochelle	10801	602846	4530054	N

Prograr	m No.	Program Facility Name	Site Class	Program Type	Address	Locality	ZIP Code	UTM East	UTM North	PEJA*
C4200	0027	CH - Catskill Former Manufactured Gas Pla	Α	ВСР	Water Street	Catskill	12414	593522	4674717	Υ
C3560	5017	CH - Kingston Gas Works	Α	BCP	North Street	Kingston	12401	585180	4641667	N
V002	292	CH - Laurel St Poughkeepsie MGP	Α	VCP	Laurel Street	Poughkeepsie	12601	588539	4617027	Υ
3360	042	CH - Water St Newburgh MGP	Α	HW	South Water St	Newburgh	12550-	582916	4594750	Υ
1521	181	K - Babylon MGP	Α	HW	William Avenue	West Babylon		639859	4506379	N
2240	058	K - Bay Ridge A Station	Α	HW	8th & 9th Ave, 63rd & 64th Sts	Brooklyn	11220	583548	4498345	Υ
1521	172	K - Bayshore MGP	Α	HW	Clinton Ave	Bay shore	11706-	647091	4509507	N
2240	060	K - Belmont Station	Α	HW	Belmont, Williams, Alabama & Sutter Aves.	Brooklyn	11220	593080	4502685	Υ
1522	212	K - Brentwood Waste Disposal Site	С	HW	334-357 American Boulevard	Brentwood	11717	648942	4514471	Υ
2240	047	K - Dangman Park MGP	Α	HW	486 Neptune Ave	Brooklyn	11224	586975	4492581	N
2410	032	K - Far Rockaway MGP	Α	HW	1200 Block of Brunswick Ave	Far Rockaway	11691	605736	4496109	Υ
2240	061	K - Flatbush Station A&B	Α	HW	Nostrand Ave, Winthrop St., New York & Parksid	e Brooklyn	11220	588928	4501177	Υ
2240	063	K - Front St. Station	Α	HW	Bridge St, Front St, Gold St & York St	Brooklyn	11201	585834	4506176	N
2240	051	K - Fulton Works	Α	HW	Nevins, DeGraw & Sackett Sts.	Brooklyn	11201-	585681	4503729	Υ
1300	089	K - Glen Cove (C) MGP	Α	HW	Stanco St.	Glen Cove	11542-	616094	4523765	N
1521	173	K - Halesite MGP	Α	HW	40 New York Ave.	Halesite	11743	633524	4527480	N
2240	064	K - Keap St. Station	С	HW	Keap St., Wythe Ave, Hooper St. & Kent Ave.	Brooklyn	11206	587656	4506191	Υ
V004	406	K - Newtown/Elmhurst Former Gas Holder	С	VCP	78-01 57th Avenue	Elmhurst	11373	594165	4509350	Υ
1521	182	K - Patchogue MGP	Α	HW	River Ave and West Main Street	Patchogue	11772	666974	4514514	Υ
2240	053	K - Peoples Works	Α	HW	Kent Ave. S. 10th St., S. 11th St.	Brooklyn	11211-	587087	4506850	Υ
2240	065	K - Plymouth Station	Α	HW	Plymouth, Hudson, Water & Gold Sts.	Brooklyn	11206	585980	4506323	N
2240	066	K - Rutledge Station	Α	HW	Rutledge St. Wythe & Kent Ave. & Wallabout & He	y Brooklyn	11206	587825	4505922	Υ
1521	159	K - Sag Harbor MGP	02	HW	Bridge Street	Sag Harbor	11963	727332	4542410	N
2240	068	K - Skillman St. Station	Α	HW	Skillman St. Flushing & Bedford Aves. & Park St.	Brooklyn	11205	588071	4505777	Υ
2240	054	K - Union Station Holder	Α	HW	Atlantic Ave, Ashford St, Liberty Ave	Brooklyn	11207	594183	4503524	Υ
2430	023	K - Clifton MGP - Staten Island	Α	HW	25 & 40 Willow Ave	Staten Island	10305-	578650	4496811	Υ
1300	086	K - Intersection St Hempstead MGP	Α	HW	Intersection St.	Hempstead	11530-	615502	4508206	N
1301	121	K - Inwood Holder	Α	HW	W. of Sheridan Blvd. & S. of Nassau Ave.	Inwood (V)	11696	605368	4496334	N
2410	029	K - Rockaway Park MGP	2	HW	Beach Channel Drive & Beach 108th Street	Rockaway Park	11694	598916	4493091	Υ
9070	035	NFG - Dunkirk Former MGP	Α	HW	31 West 2nd Street	Dunkirk	14048	143518	4712806	Υ
9151	171	NFG - Gastown MGP Tonawanda	02	HW	126 East Niagara Street	Tonawanda	14150	184594	4770532	N
8510	032	NFG - Hornell MGP	Α	HW	Comfort Inn Hornell	Hornell	14843	280609	4689084	N

Program No.	Program Facility Name	Site Class	Program Type	Address	Locality	ZIP Code	UTM East	UTM North	PEJA*
V00224	NM - 141 Cedar St. Oneida MGP	С	VCP	141 Cedar Street	Oneida	13421-	447135	4771638	N
V00485	NM - 5th St. Watervliet MGP	Α	VCP	5th & 18th Sts	WATERVLIET	12189	605848	4730955	N
837012	NM - Albion MGP	Α	HW	Ingersoll St.	Albion	14411-	240913	4793343	N
V00473	NM - Anthony St Watertown MGP	Α	VCP	Anthony St	Watertown	13601	426980	4869603	Υ
V00466	NM - Arch St Albany MGP	Α	VCP	Arch & Grand Sts.	ALBANY	12202	601837	4721960	Υ
V00489	NM - Attica MGP	С	VCP	Pearl & Windsor	Attica	14011	231993	4750632	N
V00487	NM - Ballston Spa MGP	Α	VCP	Milton Ave	Ballston Spa	12020	593852	4761947	N
V00477	NM - Canastota MGP	Α	VCP	E. N. Canal Street	Canastota	13032	439422	4769950	Υ
V00474	NM - Clinton Ave - Schenectady MGP	Α	VCP	Clinton Street	Schenectady	12305	586324	4740214	Υ
V00472	NM - Fort Edward MGP	Α	VCP	Canal St	Fort Edward	12828	615158	4791307	N
429007	NM - Fort Plain MGP	Α	HW	11 Hancock St	Fort Plain	13339-	530914	4753060	N
738034	NM - Fulton MGP	Α	HW	530 So. First St.	Fulton	13069	385827	4796453	Υ
557016	NM - Glens Falls MGP	Α	HW	14 MOHICAN STREET	Glens Falls	12801	609906	4795484	N
V00476	NM - Gloversville Washington St. MGP	Α	VCP	Washington St	Gloversville	12078	553350	4766479	Υ
V00471	NM - Herkimer Smith St. MGP	Α	VCP	Smith & William	Herkimer	13350	501193	4763300	N
622019	NM - Ilion MGP	Α	HW	1 East St.	Ilion	13357-	497780	4762240	N
518020	NM - Johnstown MGP	Α	HW	105 N. Market St	Johnstown	12095-	551091	4761978	N
V00469	NM - Malone MGP	Α	VCP	Amsden St.	Malone	12953	555810	4966528	Υ
V00480	NM - Mohawk MGP	С	VCP	Ann St.	Mohawk	13407	499801	4762245	N
V00479	NM - Ogdensburg MGP	Α	VCP	10 King St.	Ogdensburg	13669	460668	4948937	N
738035	NM - Oswego Holder	С	HW	490 West First Street	Oswego	13126	378508	4811267	N
V00481	NM - Oswego W. Utica St. MGP	Α	VCP	W. Utica St.	Oswego	13126	377669	4812155	Υ
V00488	NM - Rensselaer MGP	Α	VCP	Washington St	Rensselaer	12144	602899	4721584	N
633042	NM - Rome Jay/Madison MGP	Α	HW	106 So. Madison St & 410/412 Erie Blvd	Rome	13440-	462255	4784592	Υ
V00475	NM - Saratoga Springs Lake Ave MGP	Α	VCP	Lake Ave.	Saratoga Springs	12866	599174	4770672	N
727008	NM - Sconondoa St Oneida MGP	Α	HW	Sconondoa Street	Oneida	13421	447291	4771903	N
V00483	NM - Troy Jefferson St. Holder	С	VCP	115th Avenue	Troy	12180	607236	4730709	N
V00482	NM - Troy Liberty St. MGP	Α	VCP	Liberty St.	Troy	12180	607287	4731088	Υ
442030	NM - Troy Smith Ave. MGP	02	HW	Smith Avenue	Troy	12180	607629	4733927	Υ
V00729	NM Cohoes-Sargent St MGP	Α	VCP	Sargent St	Cohoes	11111	606056	4736397	N
336030	OR - Fulton Ave Middletown MGP	Α	HW	Fulton and Canal Street	Middletown	10940	548246	4588107	Υ
336050	OR - Genung Ave Middletown MGP	Α	HW	81-91 Genung St	Middletown	10940-	548846	4587328	N
344044	OR - Haverstraw 93B Maple MGP	С	HW	93B Maple Ave	Haverstraw	10927	586972	4560814	Υ
344049	OR - Haverstraw Clove & Maple MGP	Α	HW	120 Maple Ave	Haverstraw	10927-	586993	4560671	Υ

Program No.	Program Facility Name	Site Class	Program Type	Address	Locality	ZIP Code	UTM East	UTM North	PEJA *
706008	NYSEG - Auburn Clark St. MGP	Α	HW	Clark St.	Auburn	13021-	371031	4754477	N
C704046	NYSEG - Binghamton Washington St MGP	Α	ВСР	25 Washington Street	Binghamton	13901	424317	4660663	Υ
712012	NYSEG - Cortland Remote Holder	Α	HW	43 and 45 Charles Street	Cortland	13045	403263	4717591	Υ
826012	NYSEG - Dansville MGP	Α	HW	50 Ossian Street	Dansville	14437	278205	4715601	N
336046	NYSEG - Goshen MGP	Α	HW	150 West Main St	Goshen	10924-	555929	4583456	N
558021	NYSEG - Granville MGP	Α	HW	85 Main St.	Granville	12832-	640681	4807860	N
755007	NYSEG - Ithaca Cayuga Inlet MGP	С	HW	West Court Street	Ithaca	14850	375679	4700009	Υ
755008	NYSEG - Ithaca Court St. MGP	02	HW	Court Street	Ithaca	14850	376339	4700048	N
932109	NYSEG - Lockport State Road MGP	С	HW	State Road	Lockport	14094-	199256	4785814	Υ
932098	NYSEG - Lockport Transit Street MGP	Α	HW	Between LaGrange & Saxton St./South Transit St.	Lockport	14094	199529	4785987	Υ
859020	NYSEG - Lyons MGP	Α	HW	Geneva St	Lyons	14489	337782	4769652	N
546033	NYSEG - Mechanicville Central Ave. MGP	02	HW	Central Avenue	Mechanicville	12118	607090	4751240	N
709011	NYSEG - Norwich MGP	Α	HW	24 Birdsall St	Norwich	13815-	457310	4708739	Υ
439001	NYSEG - Oneonta MGP	02	HW	Gas Avenue	Oneonta	13820	495211	4700002	Υ
859022	NYSEG - Palmyra MGP	Α	HW	Park Drive	Palmyra	14522	318932	4770352	N
862008	NYSEG - Penn Yan Jackson St. MGP	Α	HW	Linden St	Penn Yan	14527	331562	4725817	N
862009	NYSEG - Penn Yan Water St. MGP	Α	HW	Water St	Penn Yan	14527-	331576	4724924	N
510016	NYSEG - Plattsburg Bridge St. MGP	С	HW	146 Bridge Street	Plattsburgh	12901-	623188	4950332	N
850010	NYSEG - Seneca Falls MGP	Α	HW	174-175 Fall St	Seneca Falls	13148	352788	4752410	N
835015	NYSEG - Wadsworth St Geneva MGP	Α	HW	Wadsworth St	Geneva	14456-	338376	4748478	Υ
961007	NYSEG - Warsaw MGP	С	HW	Court and Mechanic Streets	Warsaw	14591	243359	4737102	N
850011	NYSEG - Waterloo MGP	С	HW	364 E. Main St	Waterloo	13168	349166	4751505	N
V00301	RGE - Brockport MGP Site	Α	VCP	Erie & Perry Streets (& NYS Barge Canal)	Brockport	14420	260867	4788966	Υ
V00591	RGE - Canandaigua (V) - Clark St.	Α	VCP	79 CLARK STREET	Canandaigua	14424	313725	4750069	N
V00593	RGE - West Station	Α	VCP	254 Mill Street	Rochester	14614-	287223	4782079	Υ
V00731	RGE Geneseo-Park St MGP	Р	VCP	Park St	Geneseo	11111	269525	4741913	Υ
819019	Batavia Former MGP	Р	HW	11 Evans Street	Batavia	14021	240270	4765254	N
340026	Cold Spring MGP	02	HW	5 New Street	Cold Spring	10516	586920	4585427	N
V00516	Former MGP - Purdy & Traverse Avenues	Α	VCP	10-14 Waterfront Place	Port Chester	10573-	612409	4539338	Υ
907036	Jamestown Former MGP	Р	HW	208 East First Street	Jamestown	14701	149560	4669034	Υ
905035	Salamanca Former MGP	Р	HW	38 Main Street	Salamanca	14779	193032	4673788	N
516008	Saranac Lake Gas Co. Inc.	02	HW	Payeville Road	Saranac Lake	12783-	570551	4907694	N
356018	Saugerties MGP	Α	HW	16 Ferry Street	Saugerties	12477	587476	4657959	N
907037	Westfield Gas Works	Р	HW	15 Union Street	Westfield	14787	123045	4695723	N

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Table 1

NEW YORK STATE INVESTOR-OWNED UTILITY SIR COST SUMMARY

Amounts (\$000)

3,251

\$812,738

115,380

\$1,845,206

46,086

\$1,714,811

744,974

\$18,307,370

1.55%

\$184,521

F

G

Ε

Actual SIR **Total Future Total Future** Reg. Asset Write-**Actual SIR** Estimated SIR Expenditures Not Estimated Costs "Potential" Liability 2010 YE Utility Down of 10% of 2012 Estimated Expenditures **Estimated SIR** Expenditures Yet Recovered (Liability for 2012 above Estimated costs Common Equity and on costs as a % of Collections in UTILITY Thru 12/31/10 Costs for 2011 Thru 12/31/11 2011 (as of 12/31/11) and on) for 2012 and on. (\$000) Utility Equity Brooklyn Union (KEDNY) \$217,287 \$50,870 \$268,157 \$25,973 \$131,274 \$395,073 \$1,298,176 3.04% Central Hudson 49,735 1,850 51,585 4,455 5,168 86,126 77,024 444,228 1.94% Consolidated Edison of New York 449,528 48,943 498,471 205,433 392,743 9,885,567 0.40% 25,414 1,458,314 1.04% KeySpan Gas East (KEDLI) 281,365 47,855 329,220 33,101 265,279 143,602 1,383,618 National Fuel Gas Distribution (1) 39,496 1,731 1,960 6,700 493,869 0.26% 41,227 1,731 12,869 NYSEG 177,130 24,160 201,290 33,911 19,960 149,740 55,100 1,048,774 1.43% Niagara Mohawk 411,492 34,735 446,227 36,710 177,334 430,005 1.60% 2,686,518 Orange & Rockland 43,493 8,745 52,238 7,046 3,079 119,668 71,587 321,646 3.72%

11,111

\$179,452

D

12,534

\$231,423

59,766

\$1,948,181

47,232

\$1,716,758

В

Column

RG&E

TOTAL:

С

<sup>(1)</sup> National Fuel Gas Distribution's 2011 expense estimate is assumed to equal the amount currently being collected in rates.

Table 2

NEW YORK STATE INVESTOR-OWNED UTILITY SIR COST SUMMARY

Amounts (\$000)

В C D Ε F G COLUMN Α "Potential" Tot. Future Reg. Asset Write-Actual SIR Future Estimated Estimated Costs Additional Down of 20% of Actual SIR 2010 YE Utility Expenditures Expenditures Not Costs Curr. Year (Liability for 2011 Liability for 2011 Common Equity 2011 and on costs UTILITY Thru 12/31/10 Yet Recovered (2011 Only) and on) (\$000) as % Util CE and on. 217,287 106,377 50,870 445,943 1,298,176 6.87% 49,735 7,773 1,850 87,976 77,024 3.96% 444,228 449,528 181,904 48,943 441,686 1,458,314 9,885,567 0.89%

# Table 3

# Electric

-		SIR Costs in Electric Cus	tomer Bills			
CECONY - Electric	- Case 09-E-0428 - RY 2 Eff. 4/1/11-S	IR Allowance of \$20,790,0	00			
		Monthly Consumption	Avg. Total Monthly Bill	Avg. Monthly SIR Amount Included in Delivery, INCL Related Taxes	SIR as % of Delivery	SIR as % of Tota
SC.	1 - Residential	300 kWh	\$ 91.51	\$ 0.22	0.44%	0.249
	9 - Commercial	12,600 kWh/50 kW	\$ 3,155.02	\$ 6.19	0.44%	0.247
	9 TOD - Large Commercial	720,000 kWh/2,000 kW	\$ 159,692.01	\$ 247.20	0.44%	0.15%
	ase 07-E-0949 - RY 3 Eff. 7/1/10-SIR A		ψ 133,032.01	247.20	0.1170	0.137
		Monthly Consumption	Avg. Total Monthly Bill	Avg. Monthly SIR Amount Included in Delivery, Incl Related Taxes	SIR as % of Delivery	SIR as % of Tota
	1 - Residential	677 kWh	\$ 126.97	\$ 1.43	2.65%	1.129
	2 - Commercial	12,600 kWh/50 kW	\$ 2,081.83	\$ 19.64	2.65%	0.949
	9 - Large Commercial	720,000 kWh/2,000 kW	\$ 94,535.67	\$ 574.76	2.65%	0.61%
	Case 10-E-0500 -RY 1 Eff. 1/1/11 - SII	Monthly Consumption	Avg. Total Monthly Bill	Avg. Monthly SIR Amount Included in Delivery, Incl Related Taxes \$ 0.74	SIR as % of Delivery	SIR as % of Total Bill 0.83%
					1.38%	
	2D - Commerical	12,600 kWh/50 kW	\$ 1,612.12	\$ 14.50	1.55%	0.90%
	3 - Primary - Large Commercial Case 09-E-0588 - RY 1 Eff. 7/1/11 - S	720,000 kWh/2,000 kW	\$ 84,189.52	\$ 720.00	1.54%	0.86%
		Monthly Consumption	Avg. Total Monthly Bill	Avg. Monthly SIR Amount Included in Delivery, Incl Related Taxes	SIR as % of Delivery	SIR as % of Total Bill
SC:	1 - Residential	630 kWh	\$ 86.45	\$ 0.77	1.50%	0.90%
SC 2	2D - Commerical	4,167 kWh/15 kW	\$ 438.42	\$ 2.94	1.40%	0.70%
SC 3	3- Large Comercial	750,000 kWh/1,650 kW	\$ 53,966.00	\$ 215.21	1.40%	0.40%
NYSEG - Electric -	Case 09-E-0715 - RY 1 Eff. 8/26/10 - S	SIR in Base Rates of \$23,94	5,000			
SC	1 - Residential	Monthly Consumption	Avg. Total Monthly Bill \$ 68.45	Avg. Monthly SIR Amount Included in Delivery, Incl Related Taxes \$ 1.51	SIR as % of Delivery 3.90%	SIR as % of Tota Bill 2.21%
	2 - Commercial	12,600 kWh/50 kW	\$ 1,240.00	\$ 18.50	3.44%	1.49%
	7-2 - Large Commercial	720,000 kWh/2,000 kW	\$ 57,956.00	\$ 650.26	3.27%	1.129
	Case 09-E-0717 - RY 1 Eff. 8/26/10 - S					
		Monthly Consumption	Avg. Total Monthly Bill	Avg. Monthly SIR Amount Included in Delivery, Incl Related Taxes	SIR as % of Delivery	SIR as % of Total Bill
	1 - Residential	600 kWh	\$ 77.43	\$ 0.87	1.93%	1.139
	7 - Commercial	12,600 kWh/50 kW	\$ 1,720.63	\$ 16.84	1.78%	0.989
ISC 8	8 - Primary - Large Commercial	720,000 kWh/2,000 kW	\$ 72,159.00	\$ 593.79	2.05%	0.829
CECONV Stoom	Case 09-S-0794 - RY 1 Eff. 10/1/10-S	SIR Costs in Steam Cust	OHIEL DILIS			
CECOIVY - Steam -	Case 09-3-0/94 - NT 1 EII. 10/ 1/ 10-3	Monthly Consumption	Avg. Total Monthly Bill	Avg. Monthly SIR Amount Included in Delivery, INCL Related Taxes	SIR as % of Delivery	SIR as % of Tota Bill
SC:	1	100 Mlb	\$ 475.43	\$ 0.82	0.25%	0.179
SC 2	2 - Non-Demand	750 Mlb	\$ 2,716.12	\$ 4.09	0.25%	0.159
	2 - Demand	4,800 Mlb/20 Mlb/hr	\$ 13,273.82	\$ 16.01	0.0025	0.001
	3 - Non-Demand	900 Mlb	\$ 2,546.20	\$ 3.28	0.25%	0.139
SC.	3 - Demand	4,900 Mlb/20 Mlb/hr	\$ 12,898.68	\$ 15.45	0.0025	0.001

### Table 3 Gas (Revised 8/18/2011)

	Case 1	1-M-0034 - SIR Proceeding	- Question 23 Re	sponses		
		SIR Costs in Gas Cus		•		
CECONY - Ga	s - Case 09-G-0795 - RY 1 Eff. 10/1/10-SIR	Allowance of \$3,669,000		A Manthly CID America	CID 0/	CID 0/
			Aug Total	Avg. Monthly SIR Amount Included in Delivery, INCL	SIR as % of	SIR as %
		Monthly Consumption	Avg. Total	Related Taxes	Of Delivery	of Total Bill
	SC 3 (Residential)	Monthly Consumption 300 Therms	Monthly Bill \$ 618.20	\$ 0.97	0.48%	0.16%
	SC 2 NH (Non-Residential)	2,000 Therms	\$ 3,616.30	\$ 4.06	0.48%	0.16%
	SC 2 NH - Large	50,000 Therms	\$ 83,268.19	\$ 68.11	0.47%	0.11%
7&R - Gas - 0	Case 08-G-1398 - RY 2 Eff. 11/1/10-SIR Allo	•	ŷ 03,200.13	ÿ 00.11	0.4770	0.0070
		· · · · · · · · · · · · · · · · · · ·		Avg. Monthly SIR Amount	SIR as %	SIR as %
			Avg. Total	Included in Delivery, Incl	of	of Total
		Monthly Consumption	Monthly Bill	Related Taxes	Delivery	Bill
	SC 1 Residential Heat	95 Ccf	\$176.26	\$0.81	1.33%	0.46%
	SC 2 Commercial	455 Ccf	\$616.18	\$2.47	1.33%	0.40%
	SC 2 Large Commercial	50,000 Ccf	\$62,611.08	\$208.55	1.33%	0.40%
EDNY - Gas	- Case 06-G-1185 - RY 4 Eff. 1/1/10-SIR Al	lowance of \$5,973,000 and	d Delivery Rate Ad	djustment of \$20,000,000		
				Avg. Monthly SIR Amount	SIR as %	SIR as %
			Avg. Total	Included in Delivery, Incl	of	of Total
		Monthly Consumption	Monthly Bill	Related Taxes	Delivery	Bill
	SC 1B Residential Heat	8.33 dt	\$125.63	\$1.80	3.06%	1.43%
	SC 2-2 Commercial & Industrial Heat	29 dt	\$382.34	\$12.65	5.28%	3.31%
EDLI - Gas -	Case 06-G-1186 - RY 4 Eff. 1/1/10-SIR Allo	owance of \$3,101000 and I	Delivery Rate Adj			
				Avg. Monthly SIR Amount	SIR as %	SIR as %
			Avg. Total	Included in Delivery, Incl	of	of Total
		Monthly Consumption	Monthly Bill	Related Taxes	Delivery	Bill
	SC 1B Residential Heat	8.33 dt	\$131.88	\$3.67	4.94%	2.78%
	SC 2B Commercial & Industrial Heat	31.7 dt	\$469.89	\$9.73	4.11%	2.07%
MPC - Gas -	Case 08-G-0609 - RY 3 Eff 3/20/2011 -	3/19/2012 SIR Allowance of	of \$6,960,000		/	
				Avg. Monthly SIR Amount	SIR as %	SIR as %
			Avg. Total	Included in Delivery, Incl	of	of Total
		Monthly Consumption	Monthly Bill	Related Taxes	Delivery	Bill
	SC 1B Residential Heat	8.33 dt	\$100.24	\$0.96	2.37%	0.96%
	SC 2 Small General Service	26.8 dt	\$298.57	\$1.77	1.58%	0.59%
VCEC . C	SC 2B Commercial & Industrial Heat	961.75 dt	\$6,362.38	\$36.66	2.25%	0.46%
YSEG - Gas	- Case 09-G-0716 - RY Eff. 8/26/10 - SIR A	anowance of \$9,966,000		Avg. Monthly SIR Amount	SIR as %	SIR as %
			Avg. Total	Included in Delivery, Incl	of	of Total
		Monthly Consumption	Monthly Bill	Related Taxes	Delivery	Bill
	SC 1B Residential Heat	79 Th	\$105.55	\$2.28	5.10%	2.20%
	SC 2 Small Commercial	257 Th	\$307.73	\$4.87	4.30%	1.60%
	SC 2B Commercial & Industrial Heat	60.058 Th	\$46,366.89	\$357.73	5.20%	0.80%
G&F - Gas -	Case 09-G-0718 - RY Eff. 8/26/10 - SIR A	,	Ç 10,300.03	ر1.1رد	3.20/0	0.0070
CAL - Uas -	2030 05 0 0710 - NT LIT. 0/20/10 - 3IN A	11,000 p3,717,000		Avg. Monthly SIR Amount	SIR as %	SIR as %
			Avg. Total	Included in Delivery, Incl	of	of Total
		Monthly Consumption	Monthly Bill	Related Taxes	Delivery	Bill
	SC 1B Residential Heat	79 Th	\$97.13	\$0.77	2.30%	0.80%
	SC 2 Small General Service	257 Th	\$266.02	\$2.50	3.70%	0.90%
	SC 2B Commercial & Industrial Heat	60,058 Th	\$47,654.06	\$143.43	2.60%	0.30%
HE&G - Gas	- Case 09-G-0589 - RY 1 Eff. 7/1/2010 - 6		. ,	γ±15.15	2.0070	5.50/0
	0000 00 0 0000 1111 172,2010 0	750,2011 07	σ. φοσ. γοσο	Avg. Monthly SIR Amount	SIR as %	SIR as %
			Aug Total	Included in Delivery, Incl	of	of Total
			Avg. Total			
		Monthly Consumption	Avg. Total Monthly Bill	Related Taxes	Delivery	Bill
	Residential Heat	Monthly Consumption 76 Ccf	Monthly Bill	Related Taxes	Delivery	Bill 0.50%
	Residential Heat Small Commercial	76 Ccf	Monthly Bill \$127.00	Related Taxes \$0.64	Delivery 0.90%	0.50%
	Small Commercial	76 Ccf 435 Ccf	Monthly Bill \$127.00 \$456.67	Related Taxes	Delivery	0.50% 0.40%
	Small Commercial Large Commercial and Industrial	76 Ccf 435 Ccf 2,000 Ccf	Monthly Bill \$127.00 \$456.67 \$2,111.11	Related Taxes \$0.64 \$1.83 \$6.33	Delivery 0.90% 0.90%	0.50% 0.40%
	Small Commercial	76 Ccf 435 Ccf 2,000 Ccf	Monthly Bill \$127.00 \$456.67 \$2,111.11	Related Taxes \$0.64 \$1.83 \$6.33	Delivery 0.90% 0.90%	0.50% 0.40%
	Small Commercial Large Commercial and Industrial	76 Ccf 435 Ccf 2,000 Ccf	Monthly Bill \$127.00 \$456.67 \$2,111.11	Related Taxes \$0.64 \$1.83 \$6.33	Delivery 0.90% 0.90% 0.90%	0.50% 0.40% 0.30%
	Small Commercial Large Commercial and Industrial	76 Ccf 435 Ccf 2,000 Ccf	Monthly Bill \$127.00 \$456.67 \$2,111.11 731,000 amortizat	Related Taxes \$0.64 \$1.83 \$6.33 tion Avg. Monthly SIR Amount	Delivery 0.90% 0.90% 0.90% SIR as %	0.50% 0.40% 0.30% SIR as %
	Small Commercial Large Commercial and Industrial	76 Ccf 435 Ccf 2,000 Ccf ,000 in Base rates and \$1,7	Monthly Bill \$127.00 \$456.67 \$2,111.11 731,000 amortizat	Related Taxes \$0.64 \$1.83 \$6.33 tion Avg. Monthly SIR Amount Included in Delivery, Incl	Delivery 0.90% 0.90% 0.90% SIR as % of	0.50% 0.40% 0.30% SIR as % of Total
	Small Commercial Large Commercial and Industrial ase 11-M-0034 - SIR Allowance of \$1,221	76 Ccf 435 Ccf 2,000 Ccf ,000 in Base rates and \$1,7 Monthly Consumption	Monthly Bill \$127.00 \$456.67 \$2,111.11 731,000 amortizat Avg. Total Monthly Bill	Related Taxes \$0.64 \$1.83 \$6.33 tion Avg. Monthly SIR Amount Included in Delivery, Incl Related Taxes	Delivery 0.90% 0.90% 0.90% SIR as % of Delivery	0.50% 0.40% 0.30% SIR as % of Total Bill

Table 4

Residential SIR Bill Impacts Forecast

		2011		2012 and on					
	SIR Impact pe			SIR Impact			% change from		
Electric	month	% Delivery Rate	% Total Bill	per month	% Delivery Rate	% Total Bill	2011		
Electric									
Central Hudson	\$ 0.7	1.50%	0.89%	\$ 1.52	2.92%	1.74%	97%		
Con Edison	\$ 0.22	0.44%	0.24%	\$ 0.53	1.06%	0.58%	142%		
NiMo	\$ 0.74	1.38%	0.83%	\$ 1.36	2.50%	1.51%	83%		
NYSEG	\$ 1.5	3.90%	2.21%	\$ 0.96	2.53%	1.42%	-36%		
O&R	\$ 1.43	3 2.65%	1.13%	\$ 2.06	3.78%	1.62%	44%		
RG&E	\$ 0.8	1.93%	1.12%	\$ 0.88	1.94%	1.13%	1%		
GAS									
KEDNY	\$ 1.80	3.06%	1.43%	\$ 3.49	5.77%	2.74%	94%		
Central Hudson	\$ 0.64	0.90%	0.50%	\$ 1.24	1.73%	0.97%	94%		
Con Edison	\$ 0.9	0.48%	0.16%	\$ 2.76	1.35%	0.45%	185%		
KEDLI	\$ 3.6	4.94%	2.78%	\$ 4.44	5.92%	3.35%	21%		
NFG	\$ 0.33	0.74%	0.33%	\$ 0.29	0.66%	0.30%	-11%		
NiMo	\$ 0.90	2.37%	0.96%	\$ 1.68	4.07%	1.66%	75%		
NYSEG	\$ 2.28	5.10%	2.16%	\$ 0.33	0.77%	0.32%	-85%		
O&R	\$ 0.8	1.33%	0.46%	\$ 1.99	3.21%	1.12%	146%		
RG&E	\$ 0.7	2.30%	0.79%	\$ 0.78	2.33%	0.80%	2%		

Table 4

Commercial SIR Bill Impacts Forecast

			2011		2012 and on				
		npact per	0/ B !! B /	o/ T / I D''I	SIR Impact		0/ B !! B /	o/ T / I D'II	% change from
Electric	m	onth	% Delivery Rate	% Total Bill	р	er month	% Delivery Rate	% Total Bill	2011
Central Hudson	\$	2.94	1.40%	0.67%	\$	5.80	2.72%	1.31%	97%
Con Edison	\$	6.19	0.44%	0.20%	\$	14.99	1.06%	0.47%	142%
NiMo	\$	14.50	1.55%	0.90%	\$	26.60	2.81%	1.64%	83%
NYSEG	\$	18.50	3.44%	1.49%	\$	11.82	2.23%	0.96%	-36%
O&R	\$	19.64	2.65%	0.94%	\$	28.32	3.78%	1.35%	44%
RG&E	\$	16.84	1.78%	0.98%	\$	16.97	1.79%	0.99%	1%
GAS									
KEDNY	\$	12.65	5.28%	3.31%	\$	24.54	9.75%	6.22%	94%
Central Hudson	\$	1.83	0.90%	0.40%	\$	3.55	1.73%	0.77%	94%
Con Edison	\$	4.06	0.47%	0.11%	\$	11.56	1.33%	0.32%	185%
KEDLI	\$	9.73	4.11%	2.07%	\$	11.79	4.93%	2.50%	21%
NFG	\$	1.41	0.74%	0.31%	\$	1.26	0.66%	0.28%	-11%
NiMo	\$	1.77	1.58%	0.59%	\$	3.09	2.73%	1.03%	75%
NYSEG	\$	4.87	4.30%	1.58%	\$	0.71	0.65%	0.23%	-85%
O&R	\$	2.47	1.33%	0.40%	\$	6.08	3.21%	0.98%	146%
RG&E	\$	2.50	3.70%	0.94%	\$	2.54	3.75%	0.95%	2%

Table 4
Industrial SIR Bill Impacts Forecast

		2011		2012 and on											
	Impact per month	% Delivery Rate	% Total Bill		SIR Impact per month	% Delivery Rate	% Total Bill	% change from 2011							
Electric						•									
Central Hudson	\$ 215.21	1.40%	0.40%	\$	424.57	2.72%	0.78%	97%							
Con Edison	\$ 247.20	0.44%	0.15%	\$	598.78	1.06%	0.37%	142%							
NiMo	\$ 720.00	1.54%	0.86%	\$	1,320.98	2.79%	1.56%	83%							
NYSEG	\$ 650.26	3.27%	1.12%	\$	415.46	2.11%	0.72%	-36%							
O&R	\$ 574.76	2.65%	0.61%	\$	828.79	3.78%	0.87%	44%							
RG&E	\$ 593.79	2.05%	0.82%	\$	598.31	2.07%	0.83%	1%							
GAS															
Central Hudson	\$ 6.33	0.90%	0.30%	\$	12.29	1.73%	0.58%	94%							
Con Edison	\$ 68.11	0.47%	0.08%	\$	193.88	1.33%	0.23%	185%							
NFG	\$ 63.54	0.74%	0.25%	\$	56.68	0.66%	0.23%	-11%							
NiMo	\$ 36.66	2.25%	0.58%	\$	64.06	3.87%	1.00%	75%							
NYSEG	\$ 357.73	5.20%	0.77%	\$	51.88	0.79%	0.11%	-85%							
O&R	\$ 208.55	1.33%	0.33%	\$	513.39	3.21%	0.82%	146%							
RG&E	\$ 143.43	2.60%	0.30%	\$	145.60	2.64%	0.31%	2%							

Central Hudson Table 4

10.0%
\$ 7,773
\$ 86,126
\$ 1,850
\$ 3,778
97%
0.85
\$ 677
94%
0.15
\$ \$ \$

					Newly												
Electric	Beginning	Δr	nount	Percent of	Incurred S	R Interest	Principal	Ending					20	11			
<u>Year</u>	Balance		lected	Remaining	Costs	Accrued	Paid	Balance						SIR as a %			SIR as %
2011	\$6,607	\$	3,778		\$ 1,57		\$3,228	\$4,952			Mo. Bill	SIR	n Rates	of Deliv. Rates	De	livery Bill	of Total Bill
2012	\$4,952	\$	7,453	20%	\$ 14,64		\$6,599	\$12,995	Resid	\$	86.45	\$	0.77	1.50%	\$	51.33	0.89%
2013	\$12,995	\$	7,453	20%	\$ 14,64		\$5,794	\$21,842	Comm	\$	438.42	\$	2.94	1.40%	\$	210.00	0.67%
2014	\$21,842	\$	7,453	15%	\$ 10,98		\$5,093	\$27,730	Ind	\$	53,966.00	\$	215.21	1.40%	\$	15,372.14	0.40%
2015	\$27,730	\$	7,453	15%	\$ 10,98		\$4,504	\$34,207									
2016	\$34,207	\$	7,453	10%	\$ 7,32		\$4,039	\$37,489				:	2012 and	beyond			
2017	\$37,489	\$	7,453	10%	\$ 7,32		\$3,711	\$41,099						SIR as a %			SIR as %
2018	\$41,099	\$	7,453	10%	\$ 7,32	1 \$4,103	\$3,350	\$45,070			Mo. Bill	SIR	n Rates	of Deliv. Rates	De	livery Bill	of Total Bill
2019	\$45,070	\$	7,453	0%	\$ -	\$4,134	\$3,319	\$41,751	Resid	\$	87.20	\$	1.52	2.92%	\$	52.08	1.74%
2020	\$41,751	\$	7,453	0%	\$ -	\$3,802	\$3,651	\$38,100	Comm	\$	441.28	\$	5.80	2.72%	\$	212.86	1.31%
2021	\$38,100	\$	7,453	0%	\$ -	\$3,437	\$4,016	\$34,084	Ind	\$	54,175.36	\$	424.57	2.72%	\$	15,581.50	0.78%
2022	\$34,084	\$	7,453	0%	\$ -	\$3,036	\$4,418	\$29,666									
2023	\$29,666	\$	7,453	0%	\$ -	\$2,594	\$4,859	\$24,807									
2024	\$24,807	\$	7,453	0%	\$ -	\$2,108	\$5,345	\$19,462									
2025	\$19,462	\$	7,453	0%	\$ -	\$1,574	\$5,880	\$13,582									
2026	\$13,582	\$	7,453	0%	\$ -	\$986	\$6,468	\$7,114									
2027	\$7,114	\$	7,453	0%	\$ -	\$339	\$7,114	\$0									
Electric Subtotal		\$123	,029.82	100%	\$ 74,78	0											
					Newly												
Gas																	
Ous	Beginning	Ar	nount	Percent of	Incurred S	R Interest	Principal	Ending					20	11			
<u>Year</u>	Beginning <u>Balance</u>		nount llected	Percent of Remaining	Costs	Accrued	Principal <u>Paid</u>	Ending <u>Balance</u>					20	11 SIR as a %			SIR as %
						Accrued					Mo. Bill	SIR I			De	livery Bill	SIR as % of Total Bill
<u>Year</u>	<u>Balance</u>	Co	llected		\$ 2,58	8 \$97	<u>Paid</u> \$580 \$1,164	Balance	Resid	\$		SIR I		SIR as a %	<u>De</u> \$	livery Bill 71.11	
<u>Year</u> 2011	<b>Balance</b> \$1,166	<u>Col</u> \$	llected 677	Remaining	\$ Costs 2	Accrued 8 \$97 4 \$150	<u>Paid</u> \$580	Balance \$863	Resid Comm	\$ \$		\$	n Rates	SIR as a % of Deliv. Rates			of Total Bill
<u>Year</u> 2011 2012 2013 2014	Balance \$1,166 \$863 \$2,283 \$3,844	**************************************	677 1,314 1,314 1,314	20% 20% 15%	\$ 2,58 \$ 2,58 \$ 2,58 \$ 1,93	Accrued \$97 4 \$150 4 \$292 8 \$416	Paid \$580 \$1,164 \$1,022 \$898	\$863 \$2,283 \$3,844 \$4,884			127.00	\$ \$	n Rates 0.64	SIR as a % of Deliv. Rates 0.90%	\$	71.11	of Total Bill 0.50%
<u>Year</u> 2011 2012 2013 2014 2015	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884	Col \$ \$ \$ \$ \$	677 1,314 1,314 1,314 1,314	20% 20% 15% 15%	\$ 27.58 \$ 2,58 \$ 2,58 \$ 1,93 \$ 1,93	Accrued 8 \$97 4 \$150 4 \$292 8 \$416 8 \$520	Paid \$580 \$1,164 \$1,022 \$898 \$794	8863 \$2,283 \$3,844 \$4,884 \$6,027	Comm	\$	127.00 456.67	\$ \$ \$	0.64 1.83 6.33	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90%	\$ \$	71.11 203.33	of Total Bill 0.50% 0.40%
Year 2011 2012 2013 2014 2015 2016	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884 \$6,027	Col \$ \$ \$ \$ \$	677 1,314 1,314 1,314 1,314 1,314	20% 20% 15% 15% 10%	\$ 2,58 \$ 2,58 \$ 2,58 \$ 1,93 \$ 1,93 \$ 1,25	Accrued  \$ \$97  4 \$150  4 \$292  8 \$416  8 \$520  2 \$602	Paid \$580 \$1,164 \$1,022 \$898 \$794 \$712	8863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607	Comm	\$	127.00 456.67	\$ \$ \$	0.64 1.83 6.33	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90%	\$ \$	71.11 203.33	of Total Bill 0.50% 0.40% 0.30%
Year 2011 2012 2013 2014 2015 2016 2017	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607	Col \$ \$ \$ \$ \$ \$ \$	677 1,314 1,314 1,314 1,314 1,314 1,314	20% 20% 15% 15% 10% 10%	\$ 2,58 \$ 2,58 \$ 2,58 \$ 1,93 \$ 1,93 \$ 1,28	Accrued   \$97	Paid \$580 \$1,164 \$1,022 \$898 \$794 \$712 \$654	Balance \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244	Comm	\$	127.00 456.67 2,111.11	\$ \$	0.64 1.83 6.33 <b>2012 and</b>	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90%  beyond SIR as a %	\$ \$ \$	71.11 203.33 703.33	of Total Bill 0.50% 0.40% 0.30% SIR as %
Year 2011 2012 2013 2014 2015 2016 2017 2018	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244	Col \$ \$ \$ \$ \$ \$ \$ \$	677 1,314 1,314 1,314 1,314 1,314 1,314 1,314	20% 20% 15% 15% 10% 10%	Costs \$ 2,58 \$ 2,58 \$ 1,93 \$ 1,28 \$ 1,28 \$ 1,28	Accrued	Paid \$580 \$1,164 \$1,022 \$898 \$794 \$712 \$654 \$591	863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945	Comm Ind	\$	127.00 456.67 2,111.11	\$ \$ \$ SIR I	0.64 1.83 6.33 <b>2012 and</b>	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90%  beyond SIR as a % of Deliv. Rates	\$ \$ \$ <u>De</u>	71.11 203.33 703.33	of Total Bill 0.50% 0.40% 0.30% SIR as % of Total Bill
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945	Col	677 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314	20% 20% 15% 15% 10% 10% 0%	Costs \$ 27 \$ 2,56 \$ 2,56 \$ 1,93 \$ 1,93 \$ 1,29 \$ 1,29 \$ 1,29 \$ 1,29	8 \$97 4 \$150 4 \$292 8 \$416 8 \$520 2 \$600 2 \$723 \$729	Paid \$580 \$1,164 \$1,022 \$898 \$794 \$712 \$654 \$591 \$585	Balance \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360	Comm Ind Resid	\$ \$	127.00 456.67 2,111.11 Mo. Bill 127.60	\$ \$ \$ <u>SIR I</u>	0.64 1.83 6.33 <b>2012 and</b> In Rates 1.24	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90% 0.90% Ubeyond SIR as a % of Deliv. Rates 1.73%	\$ \$ \$ <u>De</u>	71.11 203.33 703.33 livery Bill 71.71	of Total Bill 0.50% 0.40% 0.30% SIR as % of Total Bill 0.97%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360	CO \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	100 100 100 100 100 100 100 100 100 100	Remaining  20% 20% 15% 15% 10% 10% 0% 0%	Costs \$ 2,56 \$ 2,56 \$ 1,90 \$ 1,20 \$ 1,20 \$ 1,20 \$ 1,20 \$ 1,20 \$ 1,20 \$ 1,20 \$ 1,20 \$ 1,20 \$ 1,20	8 \$97 4 \$150 4 \$292 8 \$416 8 \$520 2 \$602 2 \$660 2 \$723 \$729 \$670	Paid \$580 \$1,164 \$1,022 \$898 \$794 \$712 \$654 \$591 \$585 \$644	\$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717	Comm Ind Resid Comm	\$ \$	127.00 456.67 2,111.11 Mo. Bill 127.60 458.39	\$ \$ \$ <u>SIR I</u> \$ \$	0.64 1.83 6.33 <b>2012 and</b> In Rates 1.24 3.55	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90%  beyond SIR as a % of Deliv. Rates 1.73% 1.73%	\$ \$ \$ <u>De</u> \$	71.11 203.33 703.33 livery Bill 71.71 205.06	of Total Bill 0.50% 0.40% 0.30% SIR as % of Total Bill 0.97% 0.77%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717	CO \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	100 100 100 100 100 100 100 100 100 100	20% 20% 15% 15% 10% 10% 0% 0%	Costs \$ 2,58 \$ 2,58 \$ 1,99 \$ 1,29 \$ 1,29 \$ 1,29 \$ - \$ - \$ -	8 \$97 4 \$150 4 \$292 8 \$416 8 \$416 8 \$520 2 \$660 2 \$723 \$729 \$670 \$606	Paid \$580 \$1,164 \$1,022 \$898 \$794 \$712 \$654 \$591 \$585 \$644 \$708	\$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009	Comm Ind Resid	\$ \$	127.00 456.67 2,111.11 Mo. Bill 127.60	\$ \$ \$ <u>SIR I</u> \$ \$	0.64 1.83 6.33 <b>2012 and</b> In Rates 1.24	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90% 0.90% Ubeyond SIR as a % of Deliv. Rates 1.73%	\$ \$ \$ <u>De</u>	71.11 203.33 703.33 livery Bill 71.71	of Total Bill 0.50% 0.40% 0.30% SIR as % of Total Bill 0.97%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009	Col	100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Remaining  20%  20%  15%  15%  10%  0%  0%  0%  0%	Costs \$ 2,56 \$ 2,56 \$ 1,90 \$ 1,20 \$ 1,20 \$ 1,20 \$ \$ \$ \$ \$ \$ \$ \$ -	8 \$97 4 \$150 4 \$292 8 \$416 8 \$520 2 \$660 2 \$723 \$729 \$670 \$606 \$535	Paid \$580 \$1,164 \$1,022 \$898 \$794 \$712 \$654 \$591 \$585 \$644 \$708 \$779	\$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009 \$5,230	Comm Ind Resid Comm	\$ \$	127.00 456.67 2,111.11 Mo. Bill 127.60 458.39	\$ \$ \$ <u>SIR I</u> \$ \$	0.64 1.83 6.33 <b>2012 and</b> In Rates 1.24 3.55	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90%  beyond SIR as a % of Deliv. Rates 1.73% 1.73%	\$ \$ \$ <u>De</u> \$	71.11 203.33 703.33 livery Bill 71.71 205.06	of Total Bill 0.50% 0.40% 0.30% SIR as % of Total Bill 0.97% 0.77%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009 \$5,230	Col	1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314	Remaining  20%  20%  15%  15%  10%  10%  0%  0%  0%  0%  0%	Costs \$ 2: \$ 2,56 \$ 1,93 \$ 1,93 \$ 1,26 \$ 1,26 \$ - 1,27 \$ - 5 \$ - 5 \$ - 5 \$ - 5	8 \$97 4 \$150 4 \$292 8 \$416 8 \$520 2 \$660 2 \$723 \$729 \$670 \$606 \$535 \$457	Paid \$580 \$1,164 \$1,022 \$898 \$794 \$712 \$654 \$591 \$585 \$644 \$708 \$779 \$857	8863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009 \$5,230 \$4,373	Comm Ind Resid Comm	\$ \$	127.00 456.67 2,111.11 Mo. Bill 127.60 458.39	\$ \$ \$ <u>SIR I</u> \$ \$	0.64 1.83 6.33 <b>2012 and</b> In Rates 1.24 3.55	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90%  beyond SIR as a % of Deliv. Rates 1.73% 1.73%	\$ \$ \$ <u>De</u> \$	71.11 203.33 703.33 livery Bill 71.71 205.06	of Total Bill 0.50% 0.40% 0.30% SIR as % of Total Bill 0.97% 0.77%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009 \$5,230 \$4,373	Col	1314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314	Remaining  20%  20%  15%  15%  10%  10%  0%  0%  0%  0%  0%  0%  0%	Costs \$ 2: \$ 2,56 \$ 1,93 \$ 1,28 \$ 1,28 \$ 1,28 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	8 \$97 4 \$150 4 \$292 8 \$416 8 \$520 2 \$602 2 \$660 2 \$723 \$729 \$670 \$606 \$535 \$457 \$372	Paid \$580 \$1,164 \$1,022 \$898 \$794 \$712 \$654 \$591 \$585 \$644 \$708 \$779 \$857 \$942	\$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009 \$5,230 \$4,373 \$3,431	Comm Ind Resid Comm	\$ \$	127.00 456.67 2,111.11 Mo. Bill 127.60 458.39	\$ \$ \$ <u>SIR I</u> \$ \$	0.64 1.83 6.33 <b>2012 and</b> In Rates 1.24 3.55	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90%  beyond SIR as a % of Deliv. Rates 1.73% 1.73%	\$ \$ \$ <u>De</u> \$	71.11 203.33 703.33 livery Bill 71.71 205.06	of Total Bill 0.50% 0.40% 0.30% SIR as % of Total Bill 0.97% 0.77%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009 \$5,230 \$4,373 \$3,431	Col	18ected 677 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314	Remaining  20%  20%  15%  15%  10%  0%  0%  0%  0%  0%  0%  0%  0%	Costs \$ 2: \$ 2.58 \$ 1,93 \$ 1,23 \$ 1,23 \$ 1,24 \$ \$ \$ \$ \$ \$ \$ \$ -	8 \$97 4 \$150 4 \$292 8 \$416 8 \$520 2 \$660 2 \$660 2 \$723 \$729 \$670 \$606 \$535 \$457 \$372 \$277	Paid \$580 \$1,164 \$1,022 \$898 \$794 \$712 \$654 \$591 \$585 \$644 \$708 \$779 \$857 \$942 \$1,037	Balance \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009 \$5,230 \$4,373 \$3,431 \$2,394	Comm Ind Resid Comm	\$ \$	127.00 456.67 2,111.11 Mo. Bill 127.60 458.39	\$ \$ \$ <u>SIR I</u> \$ \$	0.64 1.83 6.33 <b>2012 and</b> In Rates 1.24 3.55	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90%  beyond SIR as a % of Deliv. Rates 1.73% 1.73%	\$ \$ \$ <u>De</u> \$	71.11 203.33 703.33 livery Bill 71.71 205.06	of Total Bill 0.50% 0.40% 0.30% SIR as % of Total Bill 0.97% 0.77%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009 \$5,230 \$4,373 \$3,431 \$2,394	CO	1314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314	20% 20% 15% 15% 10% 10% 0% 0% 0% 0% 0% 0% 0% 0%	Costs \$ 2: \$ 2,56 \$ 1,93 \$ 1,93 \$ 1,25 \$ 1,25 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	8 \$97 4 \$150 4 \$292 8 \$416 8 \$520 2 \$660 2 \$723 \$729 \$670 \$666 \$535 \$457 \$372 \$277	Paid \$580 \$1,164 \$1,022 \$898 \$794 \$712 \$654 \$591 \$585 \$644 \$708 \$779 \$857 \$942 \$1,037 \$1,140	\$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009 \$5,230 \$4,373 \$3,431 \$2,394 \$1,254	Comm Ind Resid Comm	\$ \$	127.00 456.67 2,111.11 Mo. Bill 127.60 458.39	\$ \$ \$ <u>SIR I</u> \$ \$	0.64 1.83 6.33 <b>2012 and</b> In Rates 1.24 3.55	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90%  beyond SIR as a % of Deliv. Rates 1.73% 1.73%	\$ \$ \$ <u>De</u> \$	71.11 203.33 703.33 livery Bill 71.71 205.06	of Total Bill 0.50% 0.40% 0.30% SIR as % of Total Bill 0.97% 0.77%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009 \$5,230 \$4,373 \$3,431	Col	18ected 677 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314	Remaining  20%  20%  15%  15%  10%  0%  0%  0%  0%  0%  0%  0%  0%	Costs \$ 2: \$ 2.58 \$ 1,93 \$ 1,23 \$ 1,23 \$ 1,24 \$ \$ \$ \$ \$ \$ \$ \$ -	8 \$97 4 \$150 4 \$292 8 \$416 8 \$520 2 \$660 2 \$660 2 \$723 \$729 \$670 \$606 \$535 \$457 \$372 \$277	Paid \$580 \$1,164 \$1,022 \$898 \$794 \$712 \$654 \$591 \$585 \$644 \$708 \$779 \$857 \$942 \$1,037	Balance \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009 \$5,230 \$4,373 \$3,431 \$2,394	Comm Ind Resid Comm	\$ \$	127.00 456.67 2,111.11 Mo. Bill 127.60 458.39	\$ \$ \$ <u>SIR I</u> \$ \$	0.64 1.83 6.33 <b>2012 and</b> In Rates 1.24 3.55	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90%  beyond SIR as a % of Deliv. Rates 1.73% 1.73%	\$ \$ \$ <u>De</u> \$	71.11 203.33 703.33 livery Bill 71.71 205.06	of Total Bill 0.50% 0.40% 0.30% SIR as % of Total Bill 0.97% 0.77%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026	Balance \$1,166 \$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009 \$5,230 \$4,373 \$3,431 \$2,394	CO	1314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314 1,314	20% 20% 15% 15% 10% 10% 0% 0% 0% 0% 0% 0% 0% 0%	Costs \$ 2: \$ 2,56 \$ 1,93 \$ 1,93 \$ 1,25 \$ 1,25 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	8 \$97 4 \$150 4 \$292 8 \$416 8 \$520 2 \$660 2 \$723 \$729 \$660 \$535 \$457 \$372 \$277 \$174 \$60	Paid \$580 \$1,164 \$1,022 \$898 \$794 \$712 \$654 \$591 \$585 \$644 \$708 \$779 \$857 \$942 \$1,037 \$1,140	\$863 \$2,283 \$3,844 \$4,884 \$6,027 \$6,607 \$7,244 \$7,945 \$7,360 \$6,717 \$6,009 \$5,230 \$4,373 \$3,431 \$2,394 \$1,254	Comm Ind Resid Comm	\$ \$	127.00 456.67 2,111.11 Mo. Bill 127.60 458.39	\$ \$ \$ <u>SIR I</u> \$ \$	0.64 1.83 6.33 <b>2012 and</b> In Rates 1.24 3.55	SIR as a % of Deliv. Rates 0.90% 0.90% 0.90%  beyond SIR as a % of Deliv. Rates 1.73% 1.73%	\$ \$ \$ <u>De</u> \$	71.11 203.33 703.33 livery Bill 71.71 205.06	of Total Bill 0.50% 0.40% 0.30% SIR as % of Total Bill 0.97% 0.77%

# Appendix C

					Newly			
Steam	Beginning	Amount	Percent of	Inc	urred SIR	Interest	Principal	Ending
<u>Year</u>	<u>Balance</u>	Collected	Remaining		Costs	Accrued	<u>Paid</u>	<b>Balance</b>
2011	\$9,277	\$ 955		\$	2,496	\$1,005	(\$50)	\$11,823
2012	\$11,823	\$ 3,314	20%	\$	4,006	\$1,217	\$2,097	\$13,732
2013	\$13,732	\$ 3,314	20%	\$	4,006	\$1,408	\$1,906	\$15,833
2014	\$15,833	\$ 3,314	15%	\$	3,004	\$1,568	\$1,746	\$17,091
2015	\$17,091	\$ 3,314	15%	\$	3,004	\$1,694	\$1,620	\$18,476
2016	\$18,476	\$ 3,314	10%	\$	2,003	\$1,782	\$1,531	\$18,948
2017	\$18,948	\$ 3,314	10%	\$	2,003	\$1,829	\$1,484	\$19,466
2018	\$19,466	\$ 3,314	10%	\$	2,003	\$1,881	\$1,432	\$20,037
2019	\$20,037	\$ 3,314	0%	\$	-	\$1,838	\$1,476	\$18,561
2020	\$18,561	\$ 3,314	0%	\$	-	\$1,690	\$1,623	\$16,938
2021	\$16,938	\$ 3,314	0%	\$	-	\$1,528	\$1,785	\$15,153
2022	\$15,153	\$ 3,314	0%	\$	-	\$1,350	\$1,964	\$13,189
2023	\$13,189	\$ 3,314	0%	\$	-	\$1,153	\$2,160	\$11,029
2024	\$11,029	\$ 3,314	0%	\$	-	\$937	\$2,376	\$8,652
2025	\$8,652	\$ 3,314	0%	\$	-	\$700	\$2,614	\$6,038
2026	\$6,038	\$ 3,314	0%	\$	-	\$438	\$2,875	\$3,163
2027	\$3,163	\$ 3,314	0%	\$	-	\$151	\$3,163	\$0
Steam Subtotal		\$53,971.47		\$	22,526			
TOTAL CHECK	\$181,904.00	\$ 1,051,274		\$	441,686			

Interest Rate:				
	1 01001	unt in Current Rate (Steam) int increase needed (Steam) Allocation (Steam)	m) 247%	
		Manufa		
Electric         Beginning           Year         Balance           2011         \$143,158         \$           2012         \$176,089         \$           2013         \$205,730         \$           2014         \$238,335         \$           2015         \$257,973         \$           2016         \$279,576         \$           2017         \$287,111         \$           2018         \$295,400         \$           2019         \$304,517         \$           2020         \$282,093         \$           2021         \$257,425         \$           2022         \$230,291         \$           2023         \$200,444         \$           2024         \$167,612         \$           2025         \$131,496         \$           2026         \$91,769         \$           2027         \$48,070         \$	Collected         Remaining           5         20,790           5         50,359           5         50,359           5         50,359           5         50,359           15%         50,359           5         50,359           10%         50,359           5         50,359           0%         50,359           5         0,359           0%         50,359           5         0,359           0%         50,359           5         0,359           0%         50,359           5         0,359           0%         50,359           5         0,359           0%         50,359           0%         50,359	Newly Incurred SIR	d         Paid         Balance         Mo. Bill         SIR as a % of Deliv. Rates of Deliv. Rates of Delivery. Bill of Total         SIR as a % of Deliv. Rates of Delivery. Bill of Total         SIR as a % of Deliv. Rates of Deliv. Rates of Deliv. Rates of Delivery. Bill of Total         SIR as a % of Deliv. Rates of Deliv. R	al Bill 1% 0% 5% as % al Bill 3%
Electric Subtotal	\$826,528.06	\$ 347,607		
Gas         Beginning           Year         Balance           2011         \$29,468         \$           2012         \$36,888         \$           2013         \$42,972         \$           2014         \$49,664         \$           2015         \$53,685         \$           2016         \$58,107         \$           2017         \$59,632         \$           2018         \$61,310         \$           2019         \$63,155         \$           2020         \$58,504         \$           2021         \$53,389         \$           2022         \$47,761         \$           2023         \$41,571         \$           2024         \$34,762         \$           2025         \$27,272         \$           2026         \$19,032         \$	Collected Semaining 5 3,669 10,444 20% 5 10,444 15% 5 10,444 15% 5 10,444 10% 5 10,444 10% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0% 6 10,444 0%	Newly   Incurred SIR   Costs   S 7,929   \$3,160   \$12,725   \$3,803   \$12,725   \$4,411   \$9,544   \$4,921   \$9,544   \$5,323   \$6,362   \$5,607   \$6,362   \$5,927   \$6,362   \$5,793   \$6,362   \$5,793   \$6,362   \$5,793   \$6,362   \$5,793   \$6,362   \$6,362   \$6,362   \$6,362   \$6,362   \$6,362   \$6,362   \$6,362   \$6,363   \$6,362   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,363   \$6,	·	al Bill 5% 1% 3% ss % al Bill 5% 2%

\$ 71,553

\$170,774.68

Gas Subtotal

# Appendix C

Steam	Beginning	Amount	Percent of	Inc	Newly curred SIR	Interest	Principal	Ending	
<u>Year</u>	Balance	Collected	Remaining		Costs	Accrued	Paid	Balance	
2011	\$9,277	\$ 955	remaning	\$	2,496	\$1,005	(\$50)	\$11,823	
2012	\$11,823	\$ 3,314	20%	\$	4,006	\$1,217	\$2,097	\$13,732	
2013	\$13,732	\$ 3.314	20%	\$	4,006	\$1,408	\$1,906	\$15,833	
2014	\$15,833	\$ 3,314	15%	\$	3,004	\$1,568	\$1,746	\$17,091	
2015	\$17,091	\$ 3,314	15%	\$	3,004	\$1,694	\$1,620	\$18,476	
2016	\$18,476	\$ 3,314	10%	\$	2,003	\$1,782	\$1,531	\$18,948	
2017	\$18,948	\$ 3,314	10%	\$	2,003	\$1,829	\$1,484	\$19,466	
2018	\$19,466	\$ 3,314	10%	\$	2,003	\$1,881	\$1,432	\$20,037	
2019	\$20,037	\$ 3,314	0%	\$	-	\$1,838	\$1,476	\$18,561	
2020	\$18,561	\$ 3,314	0%	\$	-	\$1,690	\$1,623	\$16,938	
2021	\$16,938	\$ 3,314	0%	\$	-	\$1,528	\$1,785	\$15,153	
2022	\$15,153	\$ 3,314	0%	\$	-	\$1,350	\$1,964	\$13,189	
2023	\$13,189	\$ 3,314	0%	\$	-	\$1,153	\$2,160	\$11,029	
2024	\$11,029	\$ 3,314	0%	\$	-	\$937	\$2,376	\$8,652	
2025	\$8,652	\$ 3,314	0%	\$	-	\$700	\$2,614	\$6,038	
2026	\$6,038	\$ 3,314	0%	\$	-	\$438	\$2,875	\$3,163	
2027	\$3,163	\$ 3,314	0%	\$	-	\$151	\$3,163	\$0	
Steam Subtotal		\$53,971.47		\$	22,526				
TOTAL CHECK	\$181,904.00	\$ 1,051,274		\$	441,686				

#### Table 4

#### **Brooklyn Union Gas (KEDNY)**

Interest Rate: 10.0%
Beginning Balance (Through 12/31/2010): 76,377 (Lowered by \$30 million to reflect delivery rate surcharge balance that could offset SIR costs)
Total SIR Costs to be Incurred (2012 and Beyond) \$ 395,073
2011 COSTS TO BE INCURRED \$ 50,870
Amount in Current Rate (Gas) \$ 25,973 (Includes \$20 million delivery rate surcharge, assumed to be used to offset SIR costs)
Percent increase needed (Gas) 94%
Allocation (Gas) 1

	Newly																			
Gas	Beginning	Aı	nount	Percent of	Incu	irred SIR	Interest	Principal	Ending				2011							
<u>Year</u>	<b>Balance</b>	Co	llected	Remaining		Costs	Accrued	Paid	Balance						SIR as a %			SIR as %		
2011	\$76,377	\$	25,973	_	\$	50,870	\$8,883	\$17,090	\$110,157		Ν	∕lo. Bill	SIR I	n Rates	of Deliv. Rates	De	livery Bill	of Total Bill		
2012	\$110,157	\$	50,379	20%	\$	79,015	\$12,447	\$37,931	\$151,240	Resid	\$	125.63	\$	1.80	3.06%	\$	58.85	1.43%		
2013	\$151,240	\$	50,379	20%	\$	79,015	\$16,556	\$33,823	\$196,431	Comm	\$	382.34	\$	12.65	5.28%	\$	239.69	3.31%		
2014	\$196,431	\$	50,379	15%	\$	59,261	\$20,087	\$30,291	\$225,401											
2015	\$225,401	\$	50,379	15%	\$	59,261	\$22,984	\$27,395	\$257,267											
2016	\$257,267	\$	50,379	10%	\$	39,507	\$25,183	\$25,196	\$271,579					2012 a	ind beyond					
2017	\$271,579	\$	50,379	10%	\$	39,507	\$26,614	\$23,764	\$287,322						SIR as a %			SIR as %		
2018	\$287,322	\$	50,379	10%	\$	39,507	\$28,189	\$22,190	\$304,639		Ν	∕lo. Bill	SIR I	n Rates	of Deliv. Rates	<u>De</u>	livery Bill	of Total Bill		
2019	\$304,639	\$	50,379	0%	\$	-	\$27,945	\$22,434	\$282,205	Resid	\$	127.33	\$	3.49	5.77%	\$	60.54	2.74%		
2020	\$282,205	\$	50,379	0%	\$	-	\$25,702	\$24,677	\$257,528	Comm	\$	394.23	\$	24.54	9.75%	\$	251.58	6.22%		
2021	\$257,528	\$	50,379	0%	\$	-	\$23,234	\$27,145	\$230,383											
2022	\$230,383	\$	50,379	0%	\$	-	\$20,519	\$29,859	\$200,524											
2023	\$200,524	\$	50,379	0%	\$	-	\$17,533	\$32,845	\$167,679											
2024	\$167,679	\$	50,379	0%	\$	-	\$14,249	\$36,130	\$131,549											
2025	\$131,549	\$	50,379	0%	\$	-	\$10,636	\$39,743	\$91,806											
2026	\$91,806	\$	50,379	0%	\$	-	\$6,662	\$43,717	\$48,089											
2027	\$48,089	\$	50,379	0%	\$	-	\$2,290	\$48,089	\$0											
Total		\$83	32,033		\$	445,943														

## Table 4

## KeySpan - Long Island (KEDLI)

	10.0%	
Interest Rate:	\$ 220,525	(Lowered by \$30 million to reflect delivery rate surcharge balance that could offset SIR costs)
Beginning Balance (Through 12/31/2010):	\$ 143,602	
Total SIR Costs to be Incurred (2012 and Beyond)	\$ 47,855	
2011 COSTS TO BE INCURRED	\$ 33,101	(Includes \$30 million delivery rate surcharge, assumed to be used to offset SIR costs)
Amount in Current Rate (Gas)	21%	
Percent increase needed (Gas)	1	
Allocation (Gas)		

								Newly										
	Beginning		Amount	Percent of	Inc	urred SIR	Interest	Principal	Ending		2011				2011			
Gas	<b>Balance</b>	9	Collected	Remaining		Costs	Accrued	<u>Paid</u>	<b>Balance</b>						SIR as a %			SIR as %
<u>Year</u>	\$220,525	\$	33,101	20%	\$	28,720	\$21,833	\$11,268	\$237,978		Ν	1o. Bill	SIR	In Rates	of Deliv. Rates	De	livery Bill	of Total Bill
2011	\$237,978	\$	40,080	20%	\$	28,720	\$23,230	\$16,850	\$249,848	Resid	\$	131.88	\$	3.67	4.94%	\$	74.14	2.78%
2012	\$249,848	\$	40,080	15%	\$	21,540	\$24,058	\$16,022	\$255,367	Comm	\$	469.89	\$	9.73	4.11%	\$	237.02	2.07%
2013	\$255,367	\$	40,080	15%	\$	21,540	\$24,610	\$15,470	\$261,437									
2014	\$261,437	\$	40,080	10%	\$	14,360	\$24,858	\$15,222	\$260,576									
2015	\$260,576	\$	40,080	10%	\$	14,360	\$24,772	\$15,308	\$259,628					2012	and beyond			
2016	\$259,628	\$	40,080	10%	\$	14,360	\$24,677	\$15,403	\$258,585						SIR as a %			SIR as %
2017	\$258,585	\$	40,080	0%	\$	-	\$23,855	\$16,225	\$242,360		Ν	1o. Bill	SIR	In Rates	of Deliv. Rates	De	livery Bill	of Total Bill
2018	\$242,360	\$	40,080	0%	\$	-	\$22,232	\$17,848	\$224,513	Resid	\$	132.65	\$	4.44	5.92%	\$	74.91	3.35%
2019	\$224,513	\$	40,080	0%	\$	-	\$20,447	\$19,632	\$204,881	Comm	\$	471.94	\$	11.79	4.93%	\$	239.07	2.50%
2020	\$204,881	\$	40,080	0%	\$	-	\$18,484	\$21,596	\$183,285									
2021	\$183,285	\$	40,080	0%	\$	-	\$16,325	\$23,755	\$159,530									
2022	\$159,530	\$	40,080	0%	\$	-	\$13,949	\$26,131	\$133,399									
2023	\$133,399	\$	40,080	0%	\$	-	\$11,336	\$28,744	\$104,656									
2024	\$104,656	\$	40,080	0%	\$	-	\$8,462	\$31,618	\$73,038									
2025	\$73,038	\$	40,080	0%	\$	-	\$5,300	\$34,780	\$38,258									
2026	\$38,258	\$	40,080	0%	\$	-	\$1,822	\$38,258	(\$0)									
2027																		
		\$6	74,374.81		\$	143,602												

## Table 4

## **National Fuel Gas**

Interest Rate:	10.0%
Beginning Balance (Through 12/31/2010):	\$ 1,960
Total SIR Costs to be Incurred (2012 and Beyond)	\$ 14,600
2011 COSTS TO BE INCURRED	\$ -
Amount in Current Rate (Gas)	\$ 1,731
Percent increase needed (Gas)	-11%
Allocation (Gas)	1

						Newly												
Gas	Beginning	Ar	nount	Percent of	Incu	irred SIR	Interest	Principal	Ending	2011								
<u>Year</u>	Balance	Co	llected	Remaining	9	Costs	Accrued	Paid	Balance						SIR as a %			SIR as %
2011	\$1,960	\$	1,731	20%	\$	2,920	\$255	\$1,476	\$3,404			Mo. Bill	SIR In Rates		of Deliv. Rates	<u>Delivery Bill</u>		of Total Bill
2012	\$3,404	\$	1,544	20%	\$	2,920	\$409	\$1,135	\$5,190	Resid	\$	96.00	\$	0.32	0.74%	\$	43.06	0.33%
2013	\$5,190	\$	1,544	15%	\$	2,190	\$551	\$993	\$6,387	Comm	\$	448.00	\$	1.41	0.74%	\$	189.75	0.31%
2014	\$6,387	\$	1,544	15%	\$	2,190	\$671	\$873	\$7,704	Large C&I	\$	25,133.00	\$	63.54	0.74%	\$	8,550.67	0.25%
2015	\$7,704	\$	1,544	10%	\$	1,460	\$766	\$778	\$8,386									
2016	\$8,386	\$	1,544	10%	\$	1,460	\$834	\$710	\$9,136					2012 an	d beyond			
2017	\$9,136	\$	1,544	10%	\$	1,460	\$909	\$635	\$9,962						SIR as a %			SIR as %
2018	\$9,962	\$	1,544	0%	\$	-	\$919	\$625	\$9,337			Mo. Bill	SIR I	n Rates	of Deliv. Rates	D	elivery Bill	of Total Bill
2019	\$9,337	\$	1,544	0%	\$	-	\$856	\$688	\$8,649	Resid	\$	95.97	\$	0.29	0.66%	\$	43.03	0.30%
2020	\$8,649	\$	1,544	0%	\$	-	\$788	\$756	\$7,893	Comm	\$	447.85	\$	1.26	0.66%	\$	189.59	0.28%
2021	\$7,893	\$	1,544	0%	\$	-	\$712	\$832	\$7,061	Large C&I	\$	25,126.14	\$	56.68	0.66%	\$	8,543.80	0.23%
2022	\$7,061	\$	1,544	0%	\$	-	\$629	\$915	\$6,146									
2023	\$6,146	\$	1,544	0%	\$	-	\$537	\$1,007	\$5,139									
2024	\$5,139	\$	1,544	0%	\$	-	\$437	\$1,107	\$4,032									
2025	\$4,032	\$	1,544	0%	\$	-	\$326	\$1,218	\$2,814									
2026	\$2,814	\$	1,544	0%	\$	-	\$204	\$1,340	\$1,474									
2027	\$1,474	\$	1,544	0%	\$	-	\$70	\$1,474	(\$0)									
Total		\$2	6,435.50		\$	14,600												

Table 4

## Niagara Mohawk

Interest Rate:	10.0%
Beginning Balance (Through 12/31/2010):	\$ 179,309
Total SIR Costs to be Incurred (2012 and Beyond)	\$ 430,005
2011 COSTS TO BE INCURRED	\$ 34,735
Amount in Current Rate (Electric)	\$ 29,750
Percent increase needed (Electric)	83%
Allocation (Electric)	0.81
Amount in Current Rate (Gas)	\$ 6,960
Percent increase needed (Gas)	75%
Allocation (Gas)	0.19

				Newly									
Electric	Beginning	Amount	Percent of	Incurred SIR	Interest	Principal	Ending			2	011		
<u>Year</u>	Balance	Collected	Remaining	Costs	Accrued	<u>Paid</u>	Balance				SIR as a %		SIR as %
2011	\$145,240	\$ 29,750		\$ 28,135	\$14,443	\$15,307	\$158,069		Mo. Bill	SIR In Rates	of Deliv. Rates	Delivery Bill	of Total Bill
2012	\$158,069	\$ 54,582	20%	\$ 69,661	\$16,561	\$38,021	\$189,708	Resid	\$ 89.25	\$ 0.74	1.38%	\$ 53.62	0.83%
2013	\$189,708	\$ 54,582	20%	\$ 69,661	\$19,725	\$34,857	\$224,512	Comm	\$ 1,612.12	\$ 14.50	1.55%	\$ 935.48	0.90%
2014	\$224,512	\$ 54,582	15%	\$ 52,246	\$22,334	\$32,248	\$244,510	Ind	\$ 84,189.52	\$ 720.00	1.54%	\$ 46,753.25	0.86%
2015	\$244,510	\$ 54,582	15%	\$ 52,246	\$24,334	\$30,248	\$266,507						
2016	\$266,507	\$ 54,582	10%	\$ 34,830	\$25,663	\$28,919	\$272,418			2012 an	d beyond		
2017	\$272,418	\$ 54,582	10%	\$ 34,830	\$26,254	\$28,328	\$278,921				SIR as a %		SIR as %
2018	\$278,921	\$ 54,582	10%	\$ 34,830	\$26,904	\$27,678	\$286,074		Mo. Bill		of Deliv. Rates	Delivery Bill	of Total Bill
2019	\$286,074	\$ 54,582	0%	\$ -	\$25,878	\$28,704	\$257,370	Resid	\$ 89.87	\$ 1.36		\$ 54.24	1.51%
2020	\$257,370	\$ 54,582	0%	\$ -	\$23,008	\$31,574	\$225,795	Comm	\$ 1,624.22	\$ 26.60	2.81%	\$ 947.59	1.64%
2021	\$225,795	\$ 54,582	0%	\$ -	\$19,850	\$34,732	\$191,063	Ind	\$ 84,790.50	\$ 1,320.98	2.79%	\$ 47,354.23	1.56%
2022	\$191,063	\$ 54,582	0%	\$ -	\$16,377	\$38,205	\$152,858						
2023	\$152,858	\$ 54,582	0%	\$ -	\$12,557	\$42,025	\$110,833						
2024	\$110,833	\$ 54,582	0%	\$ -	\$8,354	\$46,228	\$64,605						
2025	\$64,605	\$ 54,582	0%	\$ -	\$3,731	\$50,851	\$13,754						
2026	\$13,754	\$ 54,582	0%	\$ -	(\$1,354)	\$55,936	(\$42,182)						
2027	(\$42,182)	\$ 54,582	0%	\$ -	(\$6,947)	\$61,529	(\$103,711)						
Electric Subtotal		\$903,065.13		\$ 376,439									
				Newly									
Gae	Roginning	Amount	Porcont of	Incurred SIP	Interest	Dringinal	Ending			2	011		
Gas	Beginning	Amount	Percent of	Incurred SIR	Interest	Principal Paid	Ending Balance			2	011 SIR as a %		SIR as %
Year	Balance	Collected	Percent of Remaining	Costs	Accrued	<u>Paid</u>	Balance		Mo Bill		SIR as a %	Delivery Bill	SIR as %
<u>Year</u> 2011	<u>Balance</u> \$34,069	**Collected   6,960	Remaining	* 6,600	<b>Accrued</b> \$3,389	<u>Paid</u> \$3,571	<b>Balance</b> \$37,097	Resid	Mo. Bill \$ 100.24	SIR In Rates	SIR as a % of Deliv. Rates		of Total Bill
<u>Year</u> 2011 2012	Balance \$34,069 \$37,097	* 6,960 \$ 12,161	Remaining 20%	* 6,600	*3,389 \$3,919	Paid \$3,571 \$8,242	Balance \$37,097 \$45,195	Resid Comm	\$ 100.24	SIR In Rates \$ 0.96	SIR as a % of Deliv. Rates 2.37%	\$ 40.51	of Total Bill 0.96%
<u>Year</u> 2011 2012 2013	Balance \$34,069 \$37,097 \$45,195	* 6,960	Remaining 20% 20%	Costs \$ 6,600 \$ 16,340 \$ 16,340	**Accrued \$3,389 \$3,919 \$4,728	Paid \$3,571 \$8,242 \$7,433	Balance \$37,097 \$45,195 \$54,103	Comm	\$ 100.24 \$ 298.57	<u>SIR In Rates</u> \$ 0.96 \$ 1.77	SIR as a % of Deliv. Rates 2.37% 1.58%	\$ 40.51 \$ 112.03	of Total Bill 0.96% 0.59%
<u>Year</u> 2011 2012 2013 2014	<b>Balance</b> \$34,069 \$37,097 \$45,195 \$54,103	**Collected \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161	20% 20% 15%	\$ 6,600 \$ 16,340 \$ 16,340 \$ 12,255	Accrued \$3,389 \$3,919 \$4,728 \$5,415	Paid \$3,571 \$8,242 \$7,433 \$6,746	Balance \$37,097 \$45,195 \$54,103 \$59,612		\$ 100.24 \$ 298.57	SIR In Rates \$ 0.96	SIR as a % of Deliv. Rates 2.37% 1.58%	\$ 40.51	of Total Bill 0.96%
<u>Year</u> 2011 2012 2013 2014 2015	Balance \$34,069 \$37,097 \$45,195 \$54,103 \$59,612	Collected \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161	20% 20% 15% 15%	\$ 6,600 \$ 16,340 \$ 12,255 \$ 12,255	Accrued \$3,389 \$3,919 \$4,728 \$5,415 \$5,966	Paid \$3,571 \$8,242 \$7,433 \$6,746 \$6,195	<b>Balance</b> \$37,097 \$45,195 \$54,103 \$59,612 \$65,671	Comm	\$ 100.24 \$ 298.57	SIR In Rates \$ 0.96 \$ 1.77 \$ 36.66	SIR as a % of Deliv. Rates 2.37% 1.58% 2.25%	\$ 40.51 \$ 112.03	of Total Bill 0.96% 0.59%
<u>Year</u> 2011 2012 2013 2014 2015 2016	Balance \$34,069 \$37,097 \$45,195 \$54,103 \$59,612 \$65,671	Collected \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161	20% 20% 15% 15% 10%	Costs \$ 6,600 \$ 16,340 \$ 16,340 \$ 12,255 \$ 12,255 \$ 8,170	Accrued \$3,389 \$3,919 \$4,728 \$5,415 \$5,966 \$6,368	Paid \$3,571 \$8,242 \$7,433 \$6,746 \$6,195 \$5,794	Balance \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048	Comm	\$ 100.24 \$ 298.57	SIR In Rates \$ 0.96 \$ 1.77 \$ 36.66	SIR as a % of Deliv. Rates 2.37% 1.58% 2.25% d beyond	\$ 40.51 \$ 112.03	of Total Bill 0.96% 0.59% 0.58%
Year 2011 2012 2013 2014 2015 2016 2017	Balance \$34,069 \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048	Collected  \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161	20% 20% 15% 15% 10% 10%	Costs \$ 6,600 \$ 16,340 \$ 16,340 \$ 12,255 \$ 12,255 \$ 8,170 \$ 8,170	Accrued \$3,389 \$3,919 \$4,728 \$5,415 \$5,966 \$6,368 \$6,605	Paid \$3,571 \$8,242 \$7,433 \$6,746 \$6,195 \$5,794 \$5,556	Balance \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662	Comm	\$ 100.24 \$ 298.57 \$ 6,362.38	SIR In Rates \$ 0.96 \$ 1.77 \$ 36.66	SIR as a % of Deliv. Rates 2.37% 1.58% 2.25%  d beyond SIR as a %	\$ 40.51 \$ 112.03 \$ 1,629.33	of Total Bill 0.96% 0.59% 0.58%
<u>Year</u> 2011 2012 2013 2014 2015 2016	Balance \$34,069 \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662	Collected \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161	20% 20% 15% 15% 10%	Costs \$ 6,600 \$ 16,340 \$ 16,340 \$ 12,255 \$ 12,255 \$ 8,170	Accrued \$3,389 \$3,919 \$4,728 \$5,415 \$5,966 \$6,368 \$6,605 \$6,867	Paid \$3,571 \$8,242 \$7,433 \$6,746 \$6,195 \$5,794 \$5,556 \$5,294	Balance \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538	Comm	\$ 100.24 \$ 298.57	SIR In Rates \$ 0.96 \$ 1.77 \$ 36.66	SIR as a % of Deliv. Rates 2.37% 1.58% 2.25%  d beyond SIR as a % of Deliv. Rates	\$ 40.51 \$ 112.03 \$ 1,629.33	of Total Bill 0.96% 0.59% 0.58%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019	Balance \$34,069 \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538	Collected \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161	20% 20% 15% 15% 10% 10% 0%	\$ 6,600 \$ 16,340 \$ 16,340 \$ 12,255 \$ 12,255 \$ 8,170 \$ 8,170 \$ 8,170 \$ -	Accrued \$3,389 \$3,919 \$4,728 \$5,415 \$5,966 \$6,368 \$6,605 \$6,867 \$6,746	Paid \$3,571 \$8,242 \$7,433 \$6,746 \$6,195 \$5,794 \$5,556 \$5,294 \$5,415	Balance \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123	Comm Ind Resid	\$ 100.24 \$ 298.57 \$ 6,362.38 Mo. Bill \$ 100.96	SIR In Rates \$ 0.96 \$ 1.77 \$ 36.66 2012 an SIR In Rates \$ 1.68	SIR as a % of Deliv. Rates 2.37% 1.58% 2.25% dd beyond SIR as a % of Deliv. Rates 4.07%	\$ 40.51 \$ 112.03 \$ 1,629.33 Delivery Bill \$ 41.22	of Total Bill 0.96% 0.59% 0.58% SIR as % of Total Bill 1.66%
Year 2011 2012 2013 2014 2015 2016 2017 2018	Balance \$34,069 \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123	Collected \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161	20% 20% 15% 15% 10% 10%	Costs \$ 6,600 \$ 16,340 \$ 16,340 \$ 12,255 \$ 8,170 \$ 8,170 \$ 8,170 \$ -	Accrued \$3,389 \$3,919 \$4,728 \$5,415 \$5,966 \$6,368 \$6,605 \$6,867	Paid \$3,571 \$8,242 \$7,433 \$6,746 \$6,195 \$5,794 \$5,556 \$5,294	Balance \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538	Comm Ind	\$ 100.24 \$ 298.57 \$ 6,362.38 Mo. Bill \$ 100.96 \$ 299.89	SIR In Rates \$ 0.96 \$ 1.77 \$ 36.66  2012 an	SIR as a % of Deliv. Rates 2.37% 1.58% 2.25% dbeyond SIR as a % of Deliv. Rates 4.07% 2.73%	\$ 40.51 \$ 112.03 \$ 1,629.33 Delivery Bill \$ 41.22 \$ 113.35	of Total Bill 0.96% 0.59% 0.58% SIR as % of Total Bill 1.66% 1.03%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	Balance \$34,069 \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538	Collected \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161	20% 20% 15% 15% 10% 10% 0%	Costs \$ 6,600 \$ 16,340 \$ 16,340 \$ 12,255 \$ 12,255 \$ 8,170 \$ 8,170 \$ 8,170 \$ - \$ -	Accrued \$3,389 \$3,919 \$4,728 \$5,415 \$5,966 \$6,368 \$6,005 \$6,867 \$6,746 \$6,204	Paid \$3,571 \$8,242 \$7,433 \$6,746 \$6,195 \$5,794 \$5,556 \$5,294 \$5,415 \$5,957	Balance \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123 \$62,166	Comm Ind Resid Comm	\$ 100.24 \$ 298.57 \$ 6,362.38 Mo. Bill \$ 100.96 \$ 299.89	\$\frac{\text{SIR In Rates}}{\text{\$0.96}}\$\$ \$1.77 \text{\$36.66}\$\$  2012 an \text{\$\text{SIR In Rates}}{\text{\$1.68}}\$\$ \$3.09	SIR as a % of Deliv. Rates 2.37% 1.58% 2.25% dbeyond SIR as a % of Deliv. Rates 4.07% 2.73%	\$ 40.51 \$ 112.03 \$ 1,629.33 Delivery Bill \$ 41.22	of Total Bill 0.96% 0.59% 0.58% SIR as % of Total Bill 1.66%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	Balance \$34,069 \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123 \$62,166	Collected \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161	Remaining  20%  20%  15%  10%  10%  0%  0%  0%	Costs \$ 6,600 \$ 16,340 \$ 12,255 \$ 12,255 \$ 8,170 \$ 8,170 \$ 8,170 \$ - \$ - \$ - \$ -	Accrued \$3,389 \$3,919 \$4,728 \$5,415 \$5,966 \$6,368 \$6,605 \$6,867 \$6,746 \$6,204 \$5,609	Paid \$3,571 \$8,242 \$7,433 \$6,746 \$6,195 \$5,794 \$5,556 \$5,294 \$5,415 \$5,957 \$6,553	Balance \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123 \$62,166 \$55,613	Comm Ind Resid Comm	\$ 100.24 \$ 298.57 \$ 6,362.38 Mo. Bill \$ 100.96 \$ 299.89	\$\frac{\text{SIR In Rates}}{\text{\$0.96}}\$\$ \$1.77 \text{\$36.66}\$\$  2012 an \text{\$\text{SIR In Rates}}{\text{\$1.68}}\$\$ \$3.09	SIR as a % of Deliv. Rates 2.37% 1.58% 2.25% dbeyond SIR as a % of Deliv. Rates 4.07% 2.73%	\$ 40.51 \$ 112.03 \$ 1,629.33 Delivery Bill \$ 41.22 \$ 113.35	of Total Bill 0.96% 0.59% 0.58% SIR as % of Total Bill 1.66% 1.03%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021	Balance \$34,069 \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123 \$62,166 \$55,613	Collected \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161	Remaining  20%  20%  15%  15%  10%  00%  00%  0%  0%	Costs \$ 6,600 \$ 16,340 \$ 16,340 \$ 12,255 \$ 12,255 \$ 8,170 \$ 8,170 \$ - \$ - \$ - \$ - \$ - \$ -	Accrued \$3,389 \$3,919 \$4,728 \$5,415 \$5,966 \$6,368 \$6,605 \$6,867 \$6,746 \$6,204 \$5,609 \$4,953	Paid \$3,571 \$8,242 \$7,433 \$6,746 \$6,195 \$5,794 \$5,556 \$5,294 \$5,415 \$5,957 \$6,553 \$7,208	Balance \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123 \$62,166 \$55,613 \$48,405	Comm Ind Resid Comm	\$ 100.24 \$ 298.57 \$ 6,362.38 Mo. Bill \$ 100.96 \$ 299.89	\$\frac{\text{SIR In Rates}}{\text{\$0.96}}\$\$ \$1.77 \text{\$36.66}\$\$  2012 an \text{\$\text{SIR In Rates}}{\text{\$1.68}}\$\$ \$3.09	SIR as a % of Deliv. Rates 2.37% 1.58% 2.25% dbeyond SIR as a % of Deliv. Rates 4.07% 2.73%	\$ 40.51 \$ 112.03 \$ 1,629.33 Delivery Bill \$ 41.22 \$ 113.35	of Total Bill 0.96% 0.59% 0.58% SIR as % of Total Bill 1.66% 1.03%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2022	Balance \$34,069 \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123 \$62,166 \$55,613 \$48,405	Collected \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161	Remaining  20%  20%  15%  15%  10%  0%  0%  0%  0%  0%	Costs \$ 6,600 \$ 16,340 \$ 12,255 \$ 12,255 \$ 8,170 \$ 8,170 \$ \$ \$ \$ \$ \$ \$ \$ -	Accrued \$3,389 \$3,919 \$4,728 \$5,415 \$5,966 \$6,368 \$6,605 \$6,867 \$6,746 \$6,204 \$5,609 \$4,953 \$4,232	Paid \$3,571 \$8,242 \$7,433 \$6,746 \$6,195 \$5,794 \$5,556 \$5,294 \$5,415 \$5,957 \$6,553 \$7,208 \$7,929	Balance \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123 \$62,166 \$55,613 \$48,405 \$40,477	Comm Ind Resid Comm	\$ 100.24 \$ 298.57 \$ 6,362.38 Mo. Bill \$ 100.96 \$ 299.89	\$\frac{\text{SIR In Rates}}{\text{\$0.96}}\$\$ \$1.77 \text{\$36.66}\$\$  2012 an \text{\$\text{SIR In Rates}}{\text{\$1.68}}\$\$ \$3.09	SIR as a % of Deliv. Rates 2.37% 1.58% 2.25% dbeyond SIR as a % of Deliv. Rates 4.07% 2.73%	\$ 40.51 \$ 112.03 \$ 1,629.33 Delivery Bill \$ 41.22 \$ 113.35	of Total Bill 0.96% 0.59% 0.58% SIR as % of Total Bill 1.66% 1.03%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2021 2022	Balance \$34,069 \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123 \$62,166 \$55,613 \$48,405 \$40,477	Collected \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161	Remaining  20%  20%  15%  15%  10%  0%  0%  0%  0%  0%  0%	Costs \$ 6,600 \$ 16,340 \$ 16,340 \$ 12,255 \$ 12,255 \$ 8,170 \$ 8,170 \$ 8,170 \$ \$ \$ \$ \$ \$ \$ \$ -	Accrued \$3,389 \$3,919 \$4,728 \$5,415 \$5,966 \$6,368 \$6,605 \$6,867 \$6,746 \$6,204 \$5,609 \$4,953 \$4,232 \$3,440	Paid \$3,571 \$8,242 \$7,433 \$6,746 \$6,195 \$5,794 \$5,556 \$5,294 \$5,415 \$5,957 \$6,553 \$7,208 \$7,929 \$8,722	Balance \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123 \$62,166 \$55,613 \$44,405 \$40,477 \$31,755	Comm Ind Resid Comm	\$ 100.24 \$ 298.57 \$ 6,362.38 Mo. Bill \$ 100.96 \$ 299.89	\$\frac{\text{SIR In Rates}}{\text{\$0.96}}\$\$ \$1.77 \text{\$36.66}\$\$  2012 an \text{\$\text{SIR In Rates}}{\text{\$1.68}}\$\$ \$3.09	SIR as a % of Deliv. Rates 2.37% 1.58% 2.25% dbeyond SIR as a % of Deliv. Rates 4.07% 2.73%	\$ 40.51 \$ 112.03 \$ 1,629.33 Delivery Bill \$ 41.22 \$ 113.35	of Total Bill 0.96% 0.59% 0.58% SIR as % of Total Bill 1.66% 1.03%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025	Balance \$34,069 \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123 \$62,166 \$55,613 \$44,405 \$40,477 \$31,755	Collected \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161	Remaining  20%  20%  15%  10%  10%  0%  0%  0%  0%  0%  0%  0%	Costs \$ 6,600 \$ 16,340 \$ 16,340 \$ 12,255 \$ 12,255 \$ 8,170 \$ 8,170 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Accrued \$3,389 \$3,919 \$4,728 \$5,415 \$5,966 \$6,368 \$6,605 \$6,867 \$6,746 \$6,204 \$5,609 \$4,953 \$4,232 \$3,440 \$2,567	Paid \$3,571 \$8,242 \$7,433 \$6,746 \$6,195 \$5,794 \$5,556 \$5,294 \$5,415 \$5,957 \$6,553 \$7,208 \$7,208 \$8,722 \$9,594	Balance \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123 \$62,166 \$55,613 \$48,405 \$40,477 \$31,755 \$22,161	Comm Ind Resid Comm	\$ 100.24 \$ 298.57 \$ 6,362.38 Mo. Bill \$ 100.96 \$ 299.89	\$\frac{\text{SIR In Rates}}{\text{\$0.96}}\$\$ \$1.77 \text{\$36.66}\$\$  2012 an \text{\$\text{SIR In Rates}}{\text{\$1.68}}\$\$ \$3.09	SIR as a % of Deliv. Rates 2.37% 1.58% 2.25% dbeyond SIR as a % of Deliv. Rates 4.07% 2.73%	\$ 40.51 \$ 112.03 \$ 1,629.33 Delivery Bill \$ 41.22 \$ 113.35	of Total Bill 0.96% 0.59% 0.58% SIR as % of Total Bill 1.66% 1.03%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026	Balance \$34,069 \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123 \$62,166 \$55,613 \$48,405 \$40,477 \$31,755 \$22,161	Collected \$ 6,960 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161 \$ 12,161	Remaining  20%  20%  15%  15%  10%  0%  0%  0%  0%  0%  0%  0%  0%	Costs \$ 6,600 \$ 16,340 \$ 16,340 \$ 12,255 \$ 12,255 \$ 8,170 \$ 8,170 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	Accrued \$3,389 \$3,919 \$4,728 \$5,415 \$5,966 \$6,368 \$6,605 \$6,867 \$6,746 \$6,204 \$5,609 \$4,953 \$4,232 \$3,440 \$2,567 \$1,608	Paid \$3,571 \$8,242 \$7,433 \$6,746 \$6,195 \$5,794 \$5,556 \$5,294 \$5,415 \$5,957 \$6,553 \$7,208 \$7,929 \$8,722 \$9,594 \$10,553	Balance \$37,097 \$45,195 \$54,103 \$59,612 \$65,671 \$68,048 \$70,662 \$73,538 \$68,123 \$62,166 \$55,613 \$48,405 \$40,477 \$31,755 \$22,161 \$11,608	Comm Ind Resid Comm	\$ 100.24 \$ 298.57 \$ 6,362.38 Mo. Bill \$ 100.96 \$ 299.89	\$\frac{\text{SIR In Rates}}{\text{\$0.96}}\$\$ \$1.77 \text{\$36.66}\$\$  2012 an \text{\$\text{SIR In Rates}}{\text{\$1.68}}\$\$ \$3.09	SIR as a % of Deliv. Rates 2.37% 1.58% 2.25% dbeyond SIR as a % of Deliv. Rates 4.07% 2.73%	\$ 40.51 \$ 112.03 \$ 1,629.33 Delivery Bill \$ 41.22 \$ 113.35	of Total Bill 0.96% 0.59% 0.58% SIR as % of Total Bill 1.66% 1.03%

Table 4

## New York State Electric & Gas

Interest Rate:	10.0%
Beginning Balance (Through 12/31/2010):	\$ 29,711
Total SIR Costs to be Incurred (2012 and Beyond)	\$ 149,740
2011 COSTS TO BE INCURRED	\$ 24,160
Amount in Current Rate (Electric)	\$ 23,945
Percent increase needed (Electric)	-36%
Allocation (Electric)	0.871
Amount in Current Rate (Gas)	\$ 9,966
Percent increase needed (Gas)	-85%
Allocation (Gas)	0.129

						newly												
Electric	Beginning		Amount	Percent of	Ind	curred SIR	Interest	Principal	Ending					2	011			
<u>Year</u>	<b>Balance</b>		Collected	Remaining		Costs	Accrued	<u>Paid</u>	Balance						SIR as a %			SIR as %
2011	\$25,878	\$	23,945		\$	21,043	\$2,443	\$21,502	\$25,419			Mo. Bill	SIF	R In Rates	of Deliv. Rates	<u>D</u>	elivery Bill	of Total Bill
2012	\$25,419	\$	15,299	20%	\$	26,085	\$3,081	\$12,218	\$39,286	Resid	\$	68.45	\$	1.51	3.90%	\$	38.72	2.21%
2013	\$39,286	\$	15,299	20%	\$	26,085	\$4,468	\$10,831	\$54,540	Comm	\$	1,240.00	\$	18.50	3.44%	\$	537.79	1.49%
2014	\$54,540	\$	15,299	15%	\$	19,564	\$5,667	\$9,632	\$64,472	Ind		57,956.00		650.26	3.27%	\$	19,885.63	1.12%
2015	\$64,472	\$	15,299	15%	\$	19,564	\$6,660	\$8,638	\$75,397		•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
2016	\$75,397	\$	15,299	10%	\$	13,042	\$7,427	\$7,872	\$80,568					2012 ar	nd beyond			
2017	\$80,568	\$	15,299	10%	\$	13,042	\$7,944	\$7,355	\$86,255					2012 01	SIR as a %			SIR as %
2018	\$86,255	\$	15,299	10%	\$	13,042	\$8,513	\$6,786	\$92,512			Mo. Bill	CIE	R In Rates	of Deliv. Rates	п	elivery Bill	of Total Bill
2019	\$92,512	\$	15,299	0%	\$	-	\$8,486	\$6,813	\$85,699	Resid	\$	67.90		0.96	2.53%	\$	38.17	1.42%
		\$			\$						φ \$					\$		0.96%
2020	\$85,699		15,299	0%		-	\$7,805	\$7,494	\$78,205	Comm		1,233.32		11.82	2.23%		531.11	
2021	\$78,205	\$	15,299	0%	\$	-	\$7,056	\$8,243	\$69,962	Ind	\$	57,721.20	\$	415.46	2.11%	\$	19,650.83	0.72%
2022	\$69,962	\$	15,299	0%	\$	-	\$6,231	\$9,068	\$60,894									
2023	\$60,894	\$	15,299	0%	\$	-	\$5,324	\$9,974	\$50,920									
2024	\$50,920	\$	15,299	0%	\$	-	\$4,327	\$10,972	\$39,948									
2025	\$39,948	\$	15,299	0%	\$	-	\$3,230	\$12,069	\$27,879									
2026	\$27,879	\$	15,299	0%	\$	-	\$2,023	\$13,276	\$14,603									
2027	\$14,603	\$	15,299	0%	\$	-	\$695	\$14,603	(\$0)									
Electric Subtotal			\$268,726.26		\$	151,467												
						Newly												
Gas	Beginning		Amount	Percent of	Inc	curred SIR	Interest	Principal	Ending					2	011			
Gas Year	Beginning Balance				Ind		Interest Accrued	Principal Paid	Ending Balance					2	011 SIR as a %			SIR as %
<u>Year</u>	Balance		Collected	Percent of Remaining		Costs	Accrued	<u>Paid</u>	Balance			Mo. Bill	SIF		SIR as a %	D	elivery Bill	
<u>Year</u> 2011	<b>Balance</b> \$3,833	\$	Collected 9,966	Remaining	\$	<u>Costs</u> 3,117	Accrued \$41	Paid \$9,925	<u>Balance</u> (\$2,976)	Resid		Mo. Bill 105.55		R In Rates	SIR as a % of Deliv. Rates		Delivery Bill 44.71	of Total Bill
<u>Year</u> 2011 2012	<b>Balance</b> \$3,833 (\$2,976)	\$ \$	9,966 1,445	Remaining 20%	\$	<u>Costs</u> 3,117 3,863	\$41 (\$177)	Paid \$9,925 \$1,622	Balance (\$2,976) (\$735)	Resid Comm	\$	105.55	\$	R In Rates 2.28	SIR as a % of Deliv. Rates 5.10%	\$	44.71	of Total Bill 2.16%
<u>Year</u> 2011 2012 2013	<u>Balance</u> \$3,833 (\$2,976) (\$735)	\$ \$ \$	9,966 1,445 1,445	Remaining 20% 20%	\$ \$ \$	2,117 3,863 3,863	\$41 (\$177) \$47	<u>Paid</u> \$9,925 \$1,622 \$1,398	<u>Balance</u> (\$2,976) (\$735) \$1,731	Comm	\$ \$	105.55 307.73	\$ \$	R In Rates 2.28 4.87	SIR as a % of Deliv. Rates 5.10% 4.30%	\$	44.71 113.26	of Total Bill 2.16% 1.58%
<u>Year</u> 2011 2012 2013 2014	\$3,833 (\$2,976) (\$735) \$1,731	\$ \$ \$	9,966 1,445 1,445 1,445	20% 20% 15%	\$ \$ \$	Costs 3,117 3,863 3,863 2,897	\$41 (\$177) \$47 \$246	Paid \$9,925 \$1,622 \$1,398 \$1,200	Balance (\$2,976) (\$735) \$1,731 \$3,429		\$ \$	105.55	\$ \$	R In Rates 2.28	SIR as a % of Deliv. Rates 5.10%	\$	44.71	of Total Bill 2.16%
<u>Year</u> 2011 2012 2013 2014 2015	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429	\$ \$ \$ \$	9,966 1,445 1,445 1,445 1,445	20% 20% 15% 15%	\$ \$ \$ \$	3,117 3,863 3,863 2,897 2,897	\$41 (\$177) \$47 \$246 \$415	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030	Balance (\$2,976) (\$735) \$1,731 \$3,429 \$5,296	Comm	\$ \$	105.55 307.73	\$ \$	2.28 4.87 357.73	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20%	\$	44.71 113.26	of Total Bill 2.16% 1.58%
<u>Year</u> 2011 2012 2013 2014 2015 2016	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296	\$ \$ \$ \$	9,966 1,445 1,445 1,445 1,445 1,445	20% 20% 15% 15% 10%	\$ \$ \$ \$	3,117 3,863 3,863 2,897 2,897 1,932	\$41 (\$177) \$47 \$246 \$415 \$554	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891	Balance (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337	Comm	\$ \$	105.55 307.73	\$ \$	2.28 4.87 357.73	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20%	\$	44.71 113.26	of Total Bill 2.16% 1.58% 0.77%
Year 2011 2012 2013 2014 2015 2016 2017	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337	\$ \$ \$ \$ \$ \$ \$	Collected  9,966 1,445 1,445 1,445 1,445 1,445 1,445	20% 20% 15% 15% 10% 10%	\$ \$ \$ \$ \$ \$	3,117 3,863 3,863 2,897 2,897 1,932 1,932	\$41 (\$177) \$47 \$246 \$415 \$554 \$658	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891 \$787	Balance (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481	Comm	\$ \$ \$	105.55 307.73 46,366.89	\$ \$ \$	2.28 4.87 357.73 <b>2012</b> ar	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20%  ad beyond SIR as a %	\$ \$ \$	44.71 113.26 6,879.42	of Total Bill 2.16% 1.58% 0.77% SIR as %
Year 2011 2012 2013 2014 2015 2016 2017 2018	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481	* * * * * * * *	Collected  9,966 1,445 1,445 1,445 1,445 1,445 1,445 1,445	20% 20% 15% 15% 10% 10%	\$ \$ \$ \$ \$ \$ \$ \$	Costs 3,117 3,863 3,863 2,897 2,897 1,932 1,932 1,932	Accrued \$41 (\$177) \$47 \$246 \$415 \$554 \$658 \$772	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891 \$787 \$673	Balance (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740	Comm Ind	\$ \$	105.55 307.73 46,366.89 Mo. Bill	\$ \$ \$	2.28 4.87 357.73 <b>2012 ar</b>	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20%  ad beyond SIR as a % of Deliv. Rates	\$ \$ \$	44.71 113.26 6,879.42	of Total Bill 2.16% 1.58% 0.77% SIR as % of Total Bill
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Collected  9,966 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445	20% 20% 15% 15% 10% 10% 0%	\$ \$ \$ \$ \$ \$ \$ \$	Costs 3,117 3,863 3,863 2,897 2,897 1,932 1,932	\$41 (\$177) \$47 \$246 \$415 \$554 \$658 \$772 \$802	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891 \$787 \$673 \$644	Balance (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096	Comm Ind	\$ \$ \$	105.55 307.73 46,366.89 Mo. Bill 103.60	\$ \$ \$ <u>SIF</u>	2.28 4.87 357.73 <b>2012 ar</b> R In Rates 0.33	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20%  and beyond SIR as a % of Deliv. Rates 0.77%	\$ \$ \$	44.71 113.26 6,879.42 Delivery Bill 42.76	of Total Bill 2.16% 1.58% 0.77% SIR as % of Total Bill 0.32%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096	* * * * * * * * * * *	Collected  9,966 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445	Remaining  20% 20% 15% 15% 10% 10% 0% 0%	\$ \$ \$ \$ \$ \$ \$ \$ \$	Costs 3,117 3,863 3,863 2,897 2,897 1,932 1,932 1,932	\$41 (\$177) \$47 \$246 \$415 \$554 \$658 \$772 \$802 \$737	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891 \$787 \$673 \$644 \$708	Balance (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388	Comm Ind Resid Comm	\$ \$ \$ \$	105.55 307.73 46,366.89 Mo. Bill 103.60 303.57	\$ \$ \$ <u>SIF</u> \$	2.28 4.87 357.73 <b>2012 ar</b> R In Rates 0.33 0.71	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20% and beyond SIR as a % of Deliv. Rates 0.77% 0.65%	\$ \$ \$ \$	44.71 113.26 6,879.42 Delivery Bill 42.76 109.09	of Total Bill 2.16% 1.58% 0.77%  SIR as % of Total Bill 0.32% 0.23%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388	***	Collected  9,966 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445	Remaining  20%  20%  15%  15%  10%  10%  0%  0%  0%	***	Costs 3,117 3,863 3,863 2,897 2,897 1,932 1,932 1,932 -	\$41 (\$177) \$47 \$246 \$415 \$554 \$658 \$772 \$802 \$737	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891 \$787 \$673 \$644 \$708 \$779	Balance (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609	Comm Ind	\$ \$ \$ \$	105.55 307.73 46,366.89 Mo. Bill 103.60	\$ \$ \$ <u>SIF</u> \$	2.28 4.87 357.73 <b>2012 ar</b> R In Rates 0.33	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20%  and beyond SIR as a % of Deliv. Rates 0.77%	\$ \$ \$	44.71 113.26 6,879.42 Delivery Bill 42.76	of Total Bill 2.16% 1.58% 0.77% SIR as % of Total Bill 0.32%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609	***	Collected  9,966 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445	Remaining  20% 20% 15% 15% 10% 10% 0% 0% 0%	***	Costs 3,117 3,863 3,863 2,897 2,897 1,932 1,932 1,932	\$41 (\$177) \$47 \$246 \$415 \$554 \$658 \$772 \$802 \$737 \$667 \$589	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891 \$787 \$673 \$644 \$708 \$779 \$857	Balance (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753	Comm Ind Resid Comm	\$ \$ \$ \$	105.55 307.73 46,366.89 Mo. Bill 103.60 303.57	\$ \$ \$ <u>SIF</u> \$	2.28 4.87 357.73 <b>2012 ar</b> R In Rates 0.33 0.71	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20% and beyond SIR as a % of Deliv. Rates 0.77% 0.65%	\$ \$ \$ \$	44.71 113.26 6,879.42 Delivery Bill 42.76 109.09	of Total Bill 2.16% 1.58% 0.77%  SIR as % of Total Bill 0.32% 0.23%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753	***	9,966 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445	Remaining  20%  20%  15%  15%  10%  10%  0%  0%  0%  0%  0%	* * * * * * * * * * * * * * * * * * * *	Costs 3,117 3,863 3,863 2,897 2,897 1,932 1,932 1,932 -	\$41 (\$177) \$47 \$246 \$415 \$554 \$658 \$772 \$802 \$737 \$667 \$589 \$503	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891 \$787 \$673 \$644 \$708 \$779 \$857 \$942	Balance (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753 \$4,811	Comm Ind Resid Comm	\$ \$ \$ \$	105.55 307.73 46,366.89 Mo. Bill 103.60 303.57	\$ \$ \$ <u>SIF</u> \$	2.28 4.87 357.73 <b>2012 ar</b> R In Rates 0.33 0.71	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20% and beyond SIR as a % of Deliv. Rates 0.77% 0.65%	\$ \$ \$ \$	44.71 113.26 6,879.42 Delivery Bill 42.76 109.09	of Total Bill 2.16% 1.58% 0.77%  SIR as % of Total Bill 0.32% 0.23%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753 \$4,811	***	Collected 9,966 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445	Remaining  20%  20%  15%  15%  10%  10%  0%  0%  0%  0%  0%  0%	* * * * * * * * * * * * * * * * * * * *	Costs 3,117 3,863 3,863 2,897 1,932 1,932 1,932 - - -	Accrued \$41 (\$177) \$47 \$246 \$415 \$554 \$658 \$772 \$802 \$737 \$667 \$589 \$503 \$409	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891 \$787 \$673 \$644 \$708 \$779 \$857	Balance (\$2,976) (\$735) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753 \$4,811 \$3,774	Comm Ind Resid Comm	\$ \$ \$ \$	105.55 307.73 46,366.89 Mo. Bill 103.60 303.57	\$ \$ \$ <u>SIF</u> \$	2.28 4.87 357.73 <b>2012 ar</b> R In Rates 0.33 0.71	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20% and beyond SIR as a % of Deliv. Rates 0.77% 0.65%	\$ \$ \$ \$	44.71 113.26 6,879.42 Delivery Bill 42.76 109.09	of Total Bill 2.16% 1.58% 0.77%  SIR as % of Total Bill 0.32% 0.23%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753 \$4,811 \$3,774	***	9,966 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445	Remaining  20%  20%  15%  15%  10%  10%  0%  0%  0%  0%  0%	***	Costs 3,117 3,863 3,863 2,897 2,897 1,932 1,932 1,932	\$41 (\$177) \$47 \$246 \$415 \$554 \$658 \$772 \$802 \$737 \$667 \$589 \$503	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891 \$787 \$673 \$644 \$708 \$779 \$857 \$942	Balance (\$2,976) (\$7,35) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753 \$4,811 \$3,774 \$2,634	Comm Ind Resid Comm	\$ \$ \$ \$	105.55 307.73 46,366.89 Mo. Bill 103.60 303.57	\$ \$ \$ <u>SIF</u> \$	2.28 4.87 357.73 <b>2012 ar</b> R In Rates 0.33 0.71	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20% and beyond SIR as a % of Deliv. Rates 0.77% 0.65%	\$ \$ \$ \$	44.71 113.26 6,879.42 Delivery Bill 42.76 109.09	of Total Bill 2.16% 1.58% 0.77%  SIR as % of Total Bill 0.32% 0.23%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753 \$4,811 \$3,774 \$2,634	***	Collected 9,966 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445	Remaining  20%  20%  15%  15%  10%  10%  0%  0%  0%  0%  0%  0%	* * * * * * * * * * * * * * * * * * * *	Costs 3,117 3,863 3,863 2,897 2,897 1,932 1,932 1,932	Accrued \$41 (\$177) \$47 \$246 \$415 \$554 \$658 \$772 \$802 \$737 \$667 \$589 \$503 \$409 \$305 \$191	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891 \$787 \$673 \$644 \$708 \$779 \$857 \$857 \$942 \$1,037	Balance (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753 \$4,811 \$3,774 \$2,634 \$1,380	Comm Ind Resid Comm	\$ \$ \$ \$	105.55 307.73 46,366.89 Mo. Bill 103.60 303.57	\$ \$ \$ <u>SIF</u> \$	2.28 4.87 357.73 <b>2012 ar</b> R In Rates 0.33 0.71	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20% and beyond SIR as a % of Deliv. Rates 0.77% 0.65%	\$ \$ \$ \$	44.71 113.26 6,879.42 Delivery Bill 42.76 109.09	of Total Bill 2.16% 1.58% 0.77%  SIR as % of Total Bill 0.32% 0.23%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753 \$4,811 \$3,774	****	Collected 9,966 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445	Remaining  20%  20%  15%  15%  10%  0%  0%  0%  0%  0%  0%  0%  0%	***	Costs 3,117 3,863 3,863 2,897 2,897 1,932 1,932	\$41 (\$177) \$47 \$246 \$415 \$554 \$658 \$772 \$802 \$737 \$667 \$589 \$503 \$409 \$305	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891 \$787 \$673 \$644 \$708 \$779 \$857 \$942 \$1,037 \$1,140	Balance (\$2,976) (\$7,35) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753 \$4,811 \$3,774 \$2,634	Comm Ind Resid Comm	\$ \$ \$ \$	105.55 307.73 46,366.89 Mo. Bill 103.60 303.57	\$ \$ \$ <u>SIF</u> \$	2.28 4.87 357.73 <b>2012 ar</b> R In Rates 0.33 0.71	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20% and beyond SIR as a % of Deliv. Rates 0.77% 0.65%	\$ \$ \$ \$	44.71 113.26 6,879.42 Delivery Bill 42.76 109.09	of Total Bill 2.16% 1.58% 0.77%  SIR as % of Total Bill 0.32% 0.23%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753 \$4,811 \$3,774 \$2,634	****	Collected 9,966 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445	Remaining  20%  20%  15%  15%  10%  0%  0%  0%  0%  0%  0%  0%  0%	****	Costs 3,117 3,863 3,863 2,897 2,897 1,932 1,932	Accrued \$41 (\$177) \$47 \$246 \$415 \$554 \$658 \$772 \$802 \$737 \$667 \$589 \$503 \$409 \$305 \$191	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891 \$787 \$673 \$644 \$708 \$779 \$857 \$942 \$1,037 \$1,140 \$1,254	Balance (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753 \$4,811 \$3,774 \$2,634 \$1,380	Comm Ind Resid Comm	\$ \$ \$ \$	105.55 307.73 46,366.89 Mo. Bill 103.60 303.57	\$ \$ \$ <u>SIF</u> \$	2.28 4.87 357.73 <b>2012 ar</b> R In Rates 0.33 0.71	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20% and beyond SIR as a % of Deliv. Rates 0.77% 0.65%	\$ \$ \$ \$	44.71 113.26 6,879.42 Delivery Bill 42.76 109.09	of Total Bill 2.16% 1.58% 0.77%  SIR as % of Total Bill 0.32% 0.23%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026	Balance \$3,833 (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753 \$4,811 \$3,774 \$2,634	****	9,966 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445 1,445	Remaining  20%  20%  15%  15%  10%  0%  0%  0%  0%  0%  0%  0%  0%	****	Costs 3,117 3,863 3,863 2,897 2,897 1,932 1,932	Accrued \$41 (\$177) \$47 \$246 \$415 \$554 \$658 \$772 \$802 \$737 \$667 \$589 \$503 \$409 \$305 \$191	Paid \$9,925 \$1,622 \$1,398 \$1,200 \$1,030 \$891 \$787 \$673 \$644 \$708 \$779 \$857 \$942 \$1,037 \$1,140 \$1,254	Balance (\$2,976) (\$735) \$1,731 \$3,429 \$5,296 \$6,337 \$7,481 \$8,740 \$8,096 \$7,388 \$6,609 \$5,753 \$4,811 \$3,774 \$2,634 \$1,380	Comm Ind Resid Comm	\$ \$ \$ \$	105.55 307.73 46,366.89 Mo. Bill 103.60 303.57	\$ \$ \$ <u>SIF</u> \$	2.28 4.87 357.73 <b>2012 ar</b> R In Rates 0.33 0.71	SIR as a % of Deliv. Rates 5.10% 4.30% 5.20% and beyond SIR as a % of Deliv. Rates 0.77% 0.65%	\$ \$ \$ \$	44.71 113.26 6,879.42 Delivery Bill 42.76 109.09	of Total Bill 2.16% 1.58% 0.77%  SIR as % of Total Bill 0.32% 0.23%

Newly

SIR as %

of Total Bill

1.13%

0.94%

0.61%

SIR as %

of Total Bill

1.62%

1.35%

0.87%

SIR as %

of Total Bill

0.46%

0.40%

0.33%

SIR as %

of Total Bill

1.12%

0.98%

0.82%

53.96

741.13

54.59

749.81

\$ 21,689.06

\$ 21,943.08

2011 SIR as a %

2012 and beyond

1.43

19.64

574.76

2.06

28.32

828.79

SIR In Rates of Deliv. Rates Delivery Bill

2.65%

2.65%

2.65%

SIR as a %

3.78%

3.78%

3.78%

SIR In Rates of Deliv. Rates Delivery Bill

\$

\$

Mo. Bill

Mo. Bill

\$ 127.60 \$

\$ 2,090.51 \$

\$ 94,789.70 \$

\$ 2,081.83 \$

\$ 94,535.67 \$

Resid

Ind

Resid

Comm

Ind

Comm

126.97 \$

#### Table 4

#### Orange & Rockland

Interest Rate:	10.0%
Beginning Balance (Through 12/31/2010):	\$ 1,380
Total SIR Costs to be incurred (2012 and Beyond)	\$ 119,668
2011 COSTS TO BE INCURRED	\$ 8,745
Amount in Current Rate (Electric)	\$ 5,634
Percent increase needed (Electric)	44%
Allocation (Electric)	0.7075
Amount in Current Rate (Gas)	\$ 1,412
Percent increase needed (Gas)	146%
Allocation (Gas)	0.2925

						Newly			
Electric	Beginning	Α	mount	Percent of	Inc	urred SIR	Interest	Principal	Ending
<u>Year</u>	<u>Balance</u>	Co	llected	Remaining		Costs	Accrued	Paid	Balance
2011	\$976	\$	5,634		\$	6,187	\$125	\$5,509	\$1,655
2012	\$1,655	\$	8,124	20%	\$	16,933	\$606	\$7,518	\$11,070
2013	\$11,070	\$	8,124	20%	\$	16,933	\$1,547	\$6,577	\$21,426
2014	\$21,426	\$	8,124	15%	\$	12,700	\$2,371	\$5,753	\$28,373
2015	\$28,373	\$	8,124	15%	\$	12,700	\$3,066	\$5,058	\$36,015
2016	\$36,015	\$	8,124	10%	\$	8,467	\$3,619	\$4,505	\$39,976
2017	\$39,976	\$	8,124	10%	\$	8,467	\$4,015	\$4,109	\$44,333
2018	\$44,333	\$	8,124	10%	\$	8,467	\$4,450	\$3,674	\$49,126
2019	\$49,126	\$	8,124	0%	\$	-	\$4,506	\$3,618	\$45,508
2020	\$45,508	\$	8,124	0%	\$	-	\$4,145	\$3,979	\$41,529
2021	\$41,529	\$	8,124	0%	\$	-	\$3,747	\$4,377	\$37,152
2022	\$37,152	\$	8,124	0%	\$	-	\$3,309	\$4,815	\$32,336
2023	\$32,336	\$	8,124	0%	\$	-	\$2,827	\$5,297	\$27,040
2024	\$27,040	\$	8,124	0%	\$	-	\$2,298	\$5,826	\$21,214
2025	\$21,214	\$	8,124	0%	\$	-	\$1,715	\$6,409	\$14,805
2026	\$14,805	\$	8,124	0%	\$	-	\$1,074	\$7,050	\$7,755
2027	\$7,755	\$	8,124	0%	\$	-	\$369	\$7,755	\$0
Electric Subtotal		\$13	5,618.95		\$	90,852			

						Newly											
Gas	Beginning	- 1	Amount	Percent of	Inc	curred SIR	Interest	Principal	Ending				2	011			
<u>Year</u>	Balance	<u>c</u>	ollected	Remaining		Costs	Accrued	Paid	Balance					SIR as a %			
2011	\$404	\$	1,412		\$	2,558	\$98	\$1,314	\$1,647		Mo. Bill	SIR	In Rates	of Deliv. Rates	Γ	Delivery Bill	<u>c</u>
2012	\$1,647	\$	3,476	20%	\$	7,001	\$341	\$3,135	\$5,513	Resid	\$ 176.26	\$	0.81	1.33%	\$	60.90	
2013	\$5,513	\$	3,476	20%	\$	7,001	\$728	\$2,748	\$9,765	Comm	\$ 616.18	\$	2.47	1.33%	\$	185.71	
2014	\$9,765	\$	3,476	15%	\$	5,250	\$1,065	\$2,411	\$12,605	Ind	\$ 62,611.08	\$	208.55	1.33%	\$	15,680.45	
2015	\$12,605	\$	3,476	15%	\$	5,250	\$1,349	\$2,127	\$15,728								
2016	\$15,728	\$	3,476	10%	\$	3,500	\$1,574	\$1,902	\$17,327				2012 an	d beyond			
2017	\$17,327	\$	3,476	10%	\$	3,500	\$1,734	\$1,742	\$19,085					SIR as a %			
2018	\$19,085	\$	3,476	10%	\$	3,500	\$1,910	\$1,566	\$21,019		Mo. Bill	SIR	In Rates	of Deliv. Rates	Γ	Delivery Bill	<u>c</u>
2019	\$21,019	\$	3,476	0%	\$	-	\$1,928	\$1,548	\$19,471	Resid	\$ 177.44	\$	1.99	3.21%	\$	62.09	
2020	\$19,471	\$	3,476	0%	\$	-	\$1,773	\$1,703	\$17,768	Comm	\$ 619.79	\$	6.08	3.21%	\$	189.32	
2021	\$17,768	\$	3,476	0%	\$	-	\$1,603	\$1,873	\$15,896	Ind	\$ 62,915.92	\$	513.39	3.21%	\$	15,985.29	
2022	\$15,896	\$	3,476	0%	\$	-	\$1,416	\$2,060	\$13,835								
2023	\$13,835	\$	3,476	0%	\$	-	\$1,210	\$2,266	\$11,569								
2024	\$11,569	\$	3,476	0%	\$	-	\$983	\$2,493	\$9,076								
2025	\$9,076	\$	3,476	0%	\$	-	\$734	\$2,742	\$6,334								
2026	\$6,334	\$	3,476	0%	\$	-	\$460	\$3,016	\$3,318								
2027	\$3,318	\$	3,476	0%	\$	-	\$158	\$3,318	\$0								
Gas Subtotal		\$	57,027.20		\$	37,561											
TOTAL CHECK		\$	192,646		\$	128,413											

Table 4

#### Rochester Gas & Electric

Interest Rate:	10.0%
Beginning Balance (Through 12/31/2010):	\$ 1,828
Total SIR Costs to be Incurred (2012 and Beyond)	\$ 115,380
2011 COSTS TO BE INCURRED	\$ 12,534
Amount in Current Rate (Electric)	\$ 7,394
Percent increase needed (Electric)	1%
Allocation (Electric)	0.664
Amount in Current Rate (Gas)	\$ 3,717
Percent increase needed (Gas)	2%
Allocation (Gas)	0.336

,													
				Newly									
Electric	Beginning	Amount	Percent of	Incurred SIR	Interest	Principal	Ending				2011		
Year	Balance	Collected	Remaining	Costs	Accrued	Paid	Balance				SIR as a %		SIR as %
2011	\$1,214	\$ 7,394		\$ 8,323	\$168	\$7,226	\$2,310		Mo. Bill	SIR In Ra		s Delivery Bill	of Total Bill
2012	\$2,310	\$ 7,450		\$ 15,322	\$625	\$6,826	\$10,807	Resid	\$ 77.43		.87 1.93%	\$ 45.08	1.12%
2013	\$10,807	\$ 7,450		\$ 15,322	\$1,474	\$5,976	\$20,153	Comm		\$ 16		\$ 946.07	0.98%
2014	\$20,153	\$ 7,450		\$ 11,492	\$2,217	\$5,233	\$26,412	Ind	\$ 72,159.00			\$ 28,965.37	0.82%
2015	\$26,412	\$ 7,450		\$ 11,492	\$2,843	\$4,607	\$33,297		Ψ . 2, . 66.66	ψ 000	2.0070	Ψ 20,000.01	0.0270
2016	\$33,297	\$ 7,450		\$ 7,661	\$3,340	\$4,110	\$36,848			2012	and beyond		
2017	\$36,848	\$ 7,450		\$ 7,661	\$3,695	\$3.755	\$40,755				SIR as a %		SIR as %
2018	\$40,755	\$ 7,450		\$ 7,661	\$4,086	\$3,364	\$45,052		Mo. Bill	SIR In Ra		s Delivery Bill	of Total Bill
2019	\$45,052	\$ 7,450		\$ -	\$4.133	\$3.318	\$41,734	Resid	\$ 77.44		.88 1.94%	\$ 45.08	1.13%
2020	\$41,734	\$ 7,450		\$ -	\$3,801	\$3,649	\$38,085	Comm		\$ 16		\$ 946.20	0.99%
2021	\$38,085	\$ 7,450		\$ -	\$3,436	\$4,014	\$34,070	Ind	\$ 72,163.52			\$ 28,969.89	0.83%
2022	\$34,070	\$ 7,450		\$ -	\$3,035	\$4,416	\$29,655		* .=,			+ ==,=====	
2023	\$29,655	\$ 7,450		\$ -	\$2,593	\$4,857	\$24,797						
2024	\$24,797	\$ 7,450		\$ -	\$2,107	\$5,343	\$19,454						
2025	\$19,454	\$ 7,450		\$ -	\$1,573	\$5,877	\$13,577						
2026	\$13,577	\$ 7,450		\$ -	\$985	\$6,465	\$7,112						
2027	\$7,112	\$ 7,450		\$ -	\$339	\$7,112	\$0						
	* *	, , , ,		•	,	• •							
Electric Subtotal		\$126,598.78	3	\$ 84,935									
				Newly									
Gas	Beginning	Amount	Percent of	Incurred SIR	Interest	Principal	Ending				2011		
Gas <u>Year</u>	Beginning <u>Balance</u>	Amount Collected	Percent of Remaining	Incurred SIR Costs	Interest Accrued	Principal <u>Paid</u>	Ending Balance				2011 SIR as a %		SIR as %
<u>Year</u> 2011	Balance \$614	\$ 3,717	Remaining	<u>Costs</u> \$ 4,211	Accrued \$86	<u>Paid</u> \$3,631	•		Mo. Bill	SIR In Ra	SIR as a % of Deliv. Rate		of Total Bill
<u>Year</u> 2011 2012	Balance \$614 \$1,195	***Collected** \$ 3,717 \$ 3,773	Remaining 3 20%	**Costs** 4,211 ** 7,754	\$86 \$318	Paid \$3,631 \$3,455	Balance \$1,195 \$5,494	Resid	\$ 97.13	\$ 0	SIR as a % es of Deliv. Rate 77 2.30%	\$ 33.48	of Total Bill 0.79%
<u>Year</u> 2011 2012 2013	Balance \$614 \$1,195 \$5,494	\$ 3,713 \$ 3,773 \$ 3,773	Remaining 3 20% 3 20%	**Costs** \$ 4,211 \$ 7,754 \$ 7,754	\$86 \$318 \$748	<u>Paid</u> \$3,631 \$3,455 \$3,025	Balance \$1,195 \$5,494 \$10,222	Resid Comm	\$ 97.13 \$ 266.02	\$ 0 \$ 2	SIR as a % es of Deliv. Rate 77 2.30% 50 3.70%	\$ 33.48 \$ 67.57	of Total Bill 0.79% 0.94%
<u>Year</u> 2011 2012 2013 2014	<b>Balance</b> \$614 \$1,195 \$5,494 \$10,222	\$ 3,713 \$ 3,773 \$ 3,773 \$ 3,773	Remaining 3 20% 3 20% 3 15%	\$ 4,211 \$ 7,754 \$ 7,754 \$ 5,815	\$86 \$318	Paid \$3,631 \$3,455 \$3,025 \$2,649	Balance \$1,195 \$5,494 \$10,222 \$13,389		\$ 97.13	\$ 0 \$ 2	SIR as a % es of Deliv. Rate 77 2.30% 50 3.70%	\$ 33.48	of Total Bill 0.79%
<u>Year</u> 2011 2012 2013 2014 2015	8614 \$1,195 \$5,494 \$10,222 \$13,389	\$ 3,773 \$ 3,773 \$ 3,773 \$ 3,773 \$ 3,773	Remaining  20% 20% 20% 3 15% 3 15%	Costs 4,211 7,754 7,754 5,815 5,815	\$86 \$318 \$748 \$1,124 \$1,441	Paid \$3,631 \$3,455 \$3,025 \$2,649 \$2,332	<b>Balance</b> \$1,195 \$5,494 \$10,222 \$13,389 \$16,872	Comm	\$ 97.13 \$ 266.02	\$ 0 \$ 2 \$ 143	SIR as a % es of Deliv. Rate 77 2.30% 50 3.70% 43 2.60%	\$ 33.48 \$ 67.57	of Total Bill 0.79% 0.94%
<u>Year</u> 2011 2012 2013 2014 2015 2016	Balance \$614 \$1,195 \$5,494 \$10,222 \$13,389 \$16,872	**Collected  \$ 3,717  \$ 3,777  \$ 3,777  \$ 3,777  \$ 3,777	Remaining  20% 20% 20% 3 20% 3 15% 3 15% 3 10%	Costs \$ 4,211 \$ 7,754 \$ 7,754 \$ 5,815 \$ 5,815 \$ 3,877	\$86 \$318 \$748 \$1,124 \$1,441 \$1,692	Paid \$3,631 \$3,455 \$3,025 \$2,649 \$2,332 \$2,081	<b>Balance</b> \$1,195 \$5,494 \$10,222 \$13,389 \$16,872 \$18,668	Comm	\$ 97.13 \$ 266.02	\$ 0 \$ 2 \$ 143	SIR as a % es of Deliv. Rate 77 2.30% 50 3.70% 43 2.60%  and beyond	\$ 33.48 \$ 67.57	of Total Bill 0.79% 0.94% 0.30%
<u>Year</u> 2011 2012 2013 2014 2015 2016	Balance \$614 \$1,195 \$5,494 \$10,222 \$13,389 \$16,872 \$18,668	Collected \$ 3,717 \$ 3,777 \$ 3,777 \$ 3,777 \$ 3,777 \$ 3,777 \$ 3,777	Remaining  2 20% 2 20% 3 20% 3 15% 3 15% 3 10% 3 10%	Costs \$ 4,211 \$ 7,754 \$ 7,754 \$ 5,815 \$ 5,815 \$ 3,877 \$ 3,877	\$86 \$318 \$748 \$1,124 \$1,441 \$1,692 \$1,872	Paid \$3,631 \$3,455 \$3,025 \$2,649 \$2,332 \$2,081 \$1,901	Balance \$1,195 \$5,494 \$10,222 \$13,389 \$16,872 \$18,668 \$20,643	Comm	\$ 97.13 \$ 266.02 \$ 47,654.06	\$ 0 \$ 2 \$ 143	SIR as a % es of Deliv. Rate 77 2.30% 50 3.70% 43 2.60%  and beyond SIR as a %	\$ 33.48 \$ 67.57 \$ 5,516.54	of Total Bill 0.79% 0.94% 0.30% SIR as %
<u>Year</u> 2011 2012 2013 2014 2015 2016 2017 2018	Balance \$614 \$1,195 \$5,494 \$10,222 \$13,389 \$16,872 \$18,668 \$20,643	S 3,717 3 3,777 3 3,777 5 3,777 5 3,777 5 3,777 5 3,777 5 3,777 7 3,777	Remaining  20% 20% 3 20% 3 15% 3 15% 3 10% 3 10% 3 10%	Costs \$ 4,211 \$ 7,754 \$ 7,754 \$ 5,815 \$ 5,815 \$ 3,877 \$ 3,877 \$ 3,877	\$86 \$318 \$748 \$1,124 \$1,441 \$1,692 \$1,872 \$2,069	Paid \$3,631 \$3,455 \$3,025 \$2,649 \$2,332 \$2,081 \$1,901 \$1,704	Balance \$1,195 \$5,494 \$10,222 \$13,389 \$16,872 \$18,668 \$20,643 \$22,816	Comm Ind	\$ 97.13 \$ 266.02 \$ 47,654.06	\$ 0 \$ 2 \$ 143 <b>2012</b> <u>SIR In Ra</u>	SIR as a % es of Deliv. Rate 77 2.30% 50 3.70% 43 2.60%  and beyond SIR as a % es of Deliv. Rate	\$ 33.48 \$ 67.57 \$ 5,516.54 es <u>Delivery Bill</u>	of Total Bill 0.79% 0.94% 0.30% SIR as % of Total Bill
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019	Balance \$614 \$1,195 \$5,494 \$10,222 \$13,389 \$16,872 \$18,668 \$20,643 \$22,816	Collected  \$ 3,717 \$ 3,775 \$ 3,775 \$ 3,775 \$ 3,775 \$ 3,775 \$ 3,775 \$ 3,775 \$ 3,775	Remaining  20% 20% 3 20% 3 15% 3 15% 3 10% 3 10% 3 10% 3 0%	Costs \$ 4,211 \$ 7,754 \$ 7,754 \$ 5,815 \$ 5,815 \$ 3,877 \$ 3,877 \$ -	\$86 \$318 \$748 \$1,124 \$1,441 \$1,692 \$1,872 \$2,069 \$2,093	Paid \$3,631 \$3,455 \$3,025 \$2,649 \$2,332 \$2,081 \$1,901 \$1,704 \$1,680	Balance \$1,195 \$5,494 \$10,222 \$13,389 \$16,872 \$18,668 \$20,643 \$22,816 \$21,136	Comm Ind Resid	\$ 97.13 \$ 266.02 \$ 47,654.06 Mo. Bill \$ 97.14	\$ 0 \$ 2 \$ 143 <b>2012</b> <u>SIR In Ra</u> \$ 0	SIR as a % es of Deliv. Rate 77 2.30% 50 3.70% 43 2.60% and beyond SIR as a % es of Deliv. Rate 78 2.33%	\$ 33.48 \$ 67.57 \$ 5,516.54 S Delivery Bill \$ 33.49	of Total Bill 0.79% 0.94% 0.30% SIR as % of Total Bill 0.80%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	Balance \$614 \$1,195 \$5,494 \$10,222 \$13,389 \$16,872 \$18,668 \$20,643 \$22,816 \$21,136	Collected  \$ 3,71: \$ 3,77: \$ 3,77: \$ 3,77: \$ 3,77: \$ 3,77: \$ 3,77: \$ 3,77: \$ 3,77:	Remaining  20% 20% 3 20% 3 15% 3 15% 3 10% 3 10% 3 0% 6 0%	Costs \$ 4,211 \$ 7,754 \$ 7,754 \$ 5,815 \$ 5,815 \$ 3,877 \$ 3,877 \$ 3,877 \$ - \$ -	\$86 \$318 \$748 \$1,124 \$1,441 \$1,692 \$1,872 \$2,069 \$2,093 \$1,925	Paid \$3,631 \$3,455 \$3,025 \$2,649 \$2,332 \$2,081 \$1,901 \$1,704 \$1,680 \$1,848	Balance \$1,195 \$5,494 \$10,222 \$13,389 \$16,872 \$18,668 \$20,643 \$22,816 \$21,136 \$19,288	Comm Ind Resid Comm	97.13 \$ 266.02 \$ 47,654.06 Mo. Bill \$ 97.14 \$ 266.06	\$ 0 \$ 2 \$ 143 <b>2012</b> <u>SIR In Ra</u> \$ 0 \$ 2	SIR as a % es of Deliv. Rate 77 2.30% 50 3.70% 43 2.60% and beyond SIR as a % es of Deliv. Rate 78 2.33% 54 3.75%	\$ 33.48 \$ 67.57 \$ 5,516.54 Es <u>Delivery Bill</u> \$ 33.49 \$ 67.61	of Total Bill 0.79% 0.94% 0.30% SIR as % of Total Bill 0.80% 0.95%
Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021	Balance \$614 \$1,195 \$5,494 \$10,222 \$13,389 \$16,872 \$18,668 \$20,643 \$22,816 \$21,136 \$19,288	Collected \$ 3,711 \$ 3,772 \$ 3,773 \$ 3,773 \$ 3,773 \$ 3,773 \$ 3,773 \$ 3,773 \$ 3,773 \$ 3,773 \$ 3,773	Remaining  2 20% 2 20% 3 15% 3 15% 3 10% 3 10% 3 10% 6 10% 6 0% 6 0%	Costs \$ 4,211 \$ 7,754 \$ 7,754 \$ 5,815 \$ 5,815 \$ 3,877 \$ 3,877 \$ - \$ - \$ - \$ -	86 \$318 \$748 \$1,124 \$1,441 \$1,692 \$1,872 \$2,069 \$2,093 \$1,925 \$1,740	Paid \$3,631 \$3,455 \$3,025 \$2,649 \$2,332 \$2,081 \$1,901 \$1,704 \$1,680 \$1,848 \$2,033	\$1,195 \$5,494 \$10,222 \$13,389 \$16,872 \$18,668 \$20,643 \$22,816 \$21,136 \$19,288 \$17,255	Comm Ind Resid	\$ 97.13 \$ 266.02 \$ 47,654.06 Mo. Bill \$ 97.14	\$ 0 \$ 2 \$ 143 <b>2012</b> <u>SIR In Ra</u> \$ 0 \$ 2	SIR as a % es of Deliv. Rate 77 2.30% 50 3.70% 43 2.60% and beyond SIR as a % es of Deliv. Rate 78 2.33% 54 3.75%	\$ 33.48 \$ 67.57 \$ 5,516.54 S Delivery Bill \$ 33.49	of Total Bill 0.79% 0.94% 0.30% SIR as % of Total Bill 0.80%
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Year 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023	Balance \$614 \$1,195 \$5,494 \$10,222 \$13,389 \$16,872 \$18,668 \$20,643 \$22,816 \$21,136 \$17,255 \$15,018	Collected \$ 3,711 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772 \$ 3,772	Remaining  2 00% 3 20% 3 15% 3 15% 3 10% 3 10% 3 10% 3 00% 3 00% 3 0% 5 0% 5 0%	Costs \$ 4,211 \$ 7,754 \$ 5,815 \$ 5,815 \$ 3,877 \$ 3,877 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	86 \$318 \$748 \$1,124 \$1,441 \$1,692 \$1,872 \$2,069 \$2,093 \$1,925 \$1,740 \$1,537 \$1,313	Paid \$3,631 \$3,455 \$3,025 \$2,649 \$2,332 \$2,081 \$1,901 \$1,704 \$1,680 \$1,848 \$2,033 \$2,236 \$2,460	81,195 \$5,494 \$10,222 \$13,389 \$16,872 \$18,668 \$20,643 \$22,816 \$21,136 \$19,288 \$17,255 \$15,018 \$12,558	Comm Ind Resid Comm	97.13 \$ 266.02 \$ 47,654.06 Mo. Bill \$ 97.14 \$ 266.06	\$ 0 \$ 2 \$ 143 <b>2012</b> <u>SIR In Ra</u> \$ 0 \$ 2	SIR as a % es of Deliv. Rate 77 2.30% 50 3.70% 43 2.60% and beyond SIR as a % es of Deliv. Rate 78 2.33% 54 3.75%	\$ 33.48 \$ 67.57 \$ 5,516.54 Es <u>Delivery Bill</u> \$ 33.49 \$ 67.61	of Total Bill 0.79% 0.94% 0.30% SIR as % of Total Bill 0.80% 0.95%
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