Agenda Date: 3/24/10
Agenda Item: 2B

STATE OF NEW JERSEY

Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
www.nj.gov/bpu/

ENERGY

IN THE MATTER OF THE PETITION OF ROCKLAND ELECTRIC COMPANY REQUESTING SUPPORT FOR A SMART GRID PILOT PROPOSAL	))))	ORDER ADOPTING STIPULATION DOCKET NO. ER09060459

James C. Meyer, Esq., (Riker Danzig Scherer Hyland & Perretti, LLP) Attorneys for the Petitioner Rockland Electric Company; John L. Carley, Esq., Assistant General Counsel, Rockland Electric Company

Alex Moreau, Deputy Attorney General, for the Staff of the New Jersey Board of Public Utilities (Paula Dow, Attorney General of New Jersey)

BY THE BOARD:

By this Order, the New Jersey Board of Public Utilities ("Board") considers a stipulation ("Stipulation") signed on March 23, 2010, by Rockland Electric Company ("RECO" or "Company"), the New Jersey Department of the Public Advocate, Division of Rate Counsel ("Rate Counsel") and the Staff of the Board of Public Utilities ("Staff") (collectively, the "Parties"), implementing the Company's proposed Base Electric Delivery System Project ("Pilot Program") and a tariff-based mechanism for recovery of those prudently incurred costs associated with the Pilot Program that are not otherwise funded by the United States Department of Energy ("DOE"). For the reasons discussed below, the Board adopts the Stipulation and Appendices in their entireties.

Background and Procedural History

On February 17, 2009, the federal American Recovery and Reinvestment Act of 2009 was enacted (Public Law 111-5) ("Recovery Act"). The Recovery Act is intended to stimulate the economy and includes spending in the energy sector. Pursuant to the Recovery Act, the DOE is implementing a nationwide Smart Grid Investment Grant ("SGIG") Program to further improvements in cost and performance in the energy sector from the deployment of smart grid technology.

On April 17, 2009, the DOE issued a Notice of Intent to Issue a Funding Opportunity Announcement for the SGIG Program ("NOI"). The NOI stated that DOE would apply a competitive, merit-based evaluation for the provision of funds to organizations for the implementation of qualifying smart grid investment projects, covering up to 50 percent of costs requested by grant applicants.

On June 10, 2009, a Petition of Rockland Electric Company Requesting Support for a Smart Grid Pilot Proposal ("Petition") was filed with the Board, pursuant to N.J.S.A. 48:2-1, et seq. In the Petition, RECO proposed that the Smart Grid Pilot would contain a Base Electric Delivery System Project; an advanced metering infrastructure ("AMI") system project; and customer interfaces and distributed energy resources ("DER") programs. RECO expressed an intention to apply for a smart grid technology deployment grant from the DOE, pursuant to the SGIG Program, to fund up to 50 percent of the Pilot Program. In its Petition, RECO requested that the Board issue written support for the Company's Smart Grid Pilot Proposal. Accordingly, by letter dated August 3, 2009, the Executive Director of the Board sent a letter to DOE stating that the Board welcomed RECO's submittal to the DOE for a SGIG grant for electric distribution investment, and also conveying the Board's endorsement of the principles of Smart Grid deployment.

Consolidated Edison Company of New York, Inc. ("CECONY") filed three applications with DOE on behalf of Orange and Rockland Utilities, Inc. (RECO's parent company) that included RECO's proposed Program: (i) an electric distribution system SGIG application; (ii) an AMI SGIG application; and (iii) a Smart Grid Demonstration Grant ("SGDG") Project. By letter dated October 27, 2009, the DOE notified CECONY that its SGIG application, which included a portion of RECO's Smart Grid proposal, had been selected for award negotiations with DOE ("SGIG Notification"). On November 25, 2009, DOE notified CECONY that its SGDG application, which includes another portion of RECO's Smart Grid proposal, also had been selected for award negotiations with DOE ("SGDG Notification"). Given the delay in negotiating an agreement with DOE regarding the SGDG application, the Stipulation does not address that portion of RECO's Petition. The SGDG will be addressed in a separate stipulation at a later date. The DOE did not select the AMI SGIG application for funding and hence that portion of RECO's Petition is also not addressed in the Stipulation.

On or about January 15, 2010, the Company filed its Amended Petition ("Amended Petition") which reflects updated information, including modifications to the proposed Pilot Program and requested cost recovery based, in part, on the award negotiations with DOE. The Amended Petition requests that the Board provide for rate recovery for Pilot Program funding not covered by the DOE, subject to full examination of incurred Pilot Program costs, within the context of a base rate case.

Representatives of RECO, Rate Counsel, and Staff, the only Parties to this proceeding, have held in-person and telephonic conferences to discuss issues in this case, and have reviewed additional information requested from the Company. The Parties have agreed that the Company's proposed Base Electric Delivery System Project Pilot Program, as amended and modified, and the associated proposed interim cost recovery mechanism, are reasonable and in the public interest. On March 23, 2010, the Parties executed a Stipulation.

Stipulated Matters:

The Parties have agreed to the following:

The Base Electric Delivery System Project[1]

13. For SGIG funding the DOE has selected, and the Company shall implement, the Base Electric Delivery System Project identified and described in Appendix A to this Stipulation ("Accepted SGIG Program"). Since the DOE did not select the AMI System Project and the other (i.e., non-Battery Storage Program) components of the Company's proposed customer interface and DER programs for co-funding, the Company will not pursue their implementation at this time. The Accepted SGDG Program (i.e., the SGDG battery storage pilot project) will not be the subject of this Stipulation.

14. The total cost of the Base Electric Delivery System Project selected by DOE for award negotiations is $19.4 million comprised of the following estimated costs:

- Distribution System $6.62 million;
- Substation System $10.73 million; and
- Communication System $2.03 million.

It is expressly agreed by the Signatory Parties that RECO's ratepayers will fund the revenue requirement associated with 50% of up to $19.4 million of prudent, reasonable and incremental costs for the Base Electric Delivery System Project (i.e., the Accepted SGIG Program), subject to the terms and conditions of this Stipulation.

15. RECO anticipates that the DOE stimulus grant will cover 50% of the $19.4 million cost of the Base Electric Delivery System Project.

16. The Signatory Parties recognize that smart grid technologies offer an opportunity to modernize the electrical grid and enable various benefits to end users, the environment and the utilities. As described in Appendix A, the Base Electric Delivery System Project is anticipated to provide a variety of benefits, particularly improved distribution system reliability. The Signatory Parties further acknowledge that there is a benefit to obtaining 50% federal funding for the Base Electric Delivery System Project in this State.

17. In order for the Company to implement the Base Electric Delivery System Project, however, the Company must have a means to recover, through a tariff-based mechanism, 50% of the up to $19.4 million of prudent, reasonable and incremental Accepted SGIG Program costs. The Signatory Parties stipulate that the Board should provide the Company with a means to recover from its ratepayers 50% of the up to $19.4 million cost of the Base Electric Delivery System Project, subject to the provisions of this Stipulation. The Company anticipates that DOE will fund 50% of this amount, and the ratepayer contribution will be subject to the DOE ultimately funding its share of 50% of the program costs.

Since the Base Electric Delivery System Project is a pilot program with 50% of the costs anticipated to be funded by the DOE, the cost recovery mechanism to which the Signatory

[1] Paragraph numbering is consistent with the numbering in the attached Stipulation.

Parties agree in this proceeding shall not constitute precedent in any subsequent rate case, petition or other proceeding in which the Company seeks to increase its rates or tariffs other than any proceeding provided for in this Stipulation related to the recovery of the costs of the Base Electric Delivery System Project (i.e., the Accepted SGIG Program).

18. The Signatory Parties stipulate that the Board should approve on an interim basis, subject to refund, cost recovery through the implementation of a Smart Grid Surcharge ("SGS") of 50% of the up to $19.4 million costs of the Accepted SGIG program, subject to prudence review in the Company's next base rate case filed following the adoption of this Stipulation. The Company's next base rate case shall be filed on or prior to December 1, 2013. Recovery of eligible SGIG costs shall commence on or after May 1, 2010 subject to the terms and conditions as set forth in paragraph 22. In any such prudence review, the record of this proceeding, including the Company's Petition, the Amended Petition, this Stipulation and all discovery, shall be fully incorporated and considered.

19. The Base Electric Delivery System Project will reflect the estimated construction start and completion dates set forth in Appendix A, subject to the following: (a) RECO will commence implementation of the Base Electric Delivery System Project following completion of negotiations with DOE upon terms acceptable to each of the Signatory Parties and after receipt of a written Board Order in this proceeding, and (b) the Base Electric Delivery System Project pilot will conclude on or before June 1, 2013.

Cost Recovery Mechanism

20. The Signatory Parties stipulate that the revenue requirement recovered through the SGS will be calculated to include a return on investment, a return of investment through depreciation, and the incremental operation and maintenance expenses that will be limited to the Base Electric Delivery System Project set forth in Appendix A. Such investment will include capitalized costs net of deferred taxes related to the Base Electric Delivery System Project. The Signatory Parties further stipulate that this calculation will use the depreciation rates and methodology and the after–tax overall weighted average cost of capital ("WACC") utilized to set rates in the Company's most recently decided base rate case, BPU Docket No. ER06060483, which was 7.83% (10.97% on a pre-tax basis), based upon a return on equity of 9.75%. The Signatory Parties agree that any change in the WACC and depreciation rates authorized by the Board in a subsequent base rate case (including the Company's now-pending base rate case) will be reflected in the subsequent monthly revenue requirements and interest calculations commencing with the month such changes become effective. In addition, the Company will update the rates used in Appendix B, applicable to tax depreciation, if the current pending proposal in Congress to extend bonus depreciation is approved.

21. The Signatory Parties stipulate that the initial SGS will be set based on the Company's projected cost data and resulting revenue requirement and a forecast of the Company's kWh deliveries to customers during the initial period the SGS is in effect. The SGS will be subject to annual adjustments to reset the SGS to recover the forecasted revenue requirement for the succeeding twelve month period, plus true-ups for any prior period over- or under-collections, based on the forecasted kWh deliveries for customers during the period in which the revised SGS will be in effect. The calculation of the revenue requirement for the purpose of setting the initial SGS for the initial twelve-month period is

set forth in Appendix B attached hereto and made a part of this Stipulation.

22. The initial SGS shall become effective following the Board's issuance of a written order approving this Stipulation but no earlier than May 1, 2010 subject to the following condition:

a. A public hearing must be held prior to the implementation of the SGS interim rate;

b. the Company commences incurring costs for the Base Electric Delivery System Project; and

c. the Company has resolved all issues with the DOE and has signed an agreement with DOE for the reimbursement of the DOE's share of costs for the Base Electric Delivery System Project pilot program.

23. The annual revenue requirement calculation for the Base Electric Delivery System Project for the initial twelve-month period will commence during the month in which the SGS is implemented and will be based upon projected expenditures for the Base Electric Delivery System Project. The monthly over- and under-recovery calculation will be based on actual revenues received under the SGS mechanism and the actual revenue requirement for the Base Electric Delivery System Project for each month. A sample calculation is set forth in Appendix C. The annual revenue requirement calculation used to set the SGS will follow the methodology set forth in Appendix B attached hereto and made a part of this Stipulation.

24. The Signatory Parties stipulate that the Company will file an annual petition ("Annual Filing") to adjust its SGS on a twelve-month basis, with copies provided to Board Staff and Rate Counsel, no later than March 1 of each year for a proposed June 1 implementation of the revised SGS, and shall contain the information set forth in Appendix D (Minimum Filing Requirements) and made a part of this Stipulation. The first SGS true-up filing will be made on March 1, 2011. Each Annual Filing will contain a forecast of the annual revenue requirement associated with the Base Electric Delivery System Project for the period during which the SGS will be in effect; a reconciliation of SGS recoveries and the actual revenue requirement for the twelve-month period[2] ended the last day of January of the year in which the Annual Filing is made; and other appropriate information.

25. In calculating the monthly interest on net over- and under-recoveries, interest shall be calculated as determined by the Board in its Order dated October 21, 2008 in Docket No. ER08060455. As set forth in that Order, the interest rate shall be the interest rate based on two-year constant maturity Treasuries as published in the Federal Reserve Statistical Release on the first day of each month (or the closest day thereafter on which rates are published), plus 60 basis points, but shall not exceed the Company's pre-tax WACC as identified in Paragraph 20 above. The interest rate shall be reset each month. The interest amount charged to the SGS will be computed using the methodology set forth in Appendix C attached hereto and made a part of this Stipulation. The calculation of monthly interest

[2] The Parties understand and agree that in the first SGS true-up filing the period subject to reconciliation will be the period commencing with the first calendar month in which the Company commences incurring costs for the Base Electric Delivery System Project and ended the last day of January, 2011.

shall be based on the net of tax beginning and ending average monthly balance. Simple interest will be calculated each month for any over- or under-recovery and will be deferred for recovery or refund. The simple interest will be recovered or refunded when it is included in the deferred balance at the end of the annual period. The true-up calculation of over- and under-recoveries, including interest, shall be included in the Company's Annual Filing.

26. Data on the Base Electric Delivery System Project and the associated investment costs included in the Annual Filing, as well as the level of the proposed SGS, will be subject to review by Board Staff and Rate Counsel, with opportunity for discovery and filed comments, prior to the issuance of a Board Order establishing the Company's new annual SGS. The issuance of a written Order will be preceded by adequate Public Notice and Public Hearings if required by law.

Base Rate Case Review

27. The Signatory Parties stipulate that, in the context of the Company's next base rate case filed following the adoption of this Stipulation, the costs of the Base Electric Delivery System Project will be subject to a full and thorough prudency review. The Company's next base rate case shall be filed on or prior to December 1, 2013. In that next base rate case, the Company shall have the burden of proving that the net capitalized amounts associated with the Base Electric Delivery System Project, except any amount contributed by DOE, are reasonable, prudent and incremental and that they have not already been included in its rate base. The Signatory Parties further stipulate that, if required, full evidentiary hearings with respect to the Base Electric Delivery System Project and related costs will take place in that base rate case proceeding. The record of this proceeding, including the Petition, the Modified Petition, this Stipulation and all discovery shall be fully incorporated and considered.

28. The Signatory Parties further stipulate that during the Company's next base rate case filed following the adoption of this Stipulation, and filed on or prior to December 1, 2013, the net capitalized amounts associated with the Base Electric Delivery System Project, except any amount contributed by DOE, if such amounts are deemed in that next base rate case to be reasonable, prudent and incremental, will be rolled into the Company's rate base. Thereafter, the SGS will be used only as necessary to provide for the true-up of any under- or over-recovered costs or the continued recovery of costs associated with the Base Electric Delivery System Project, except any amount contributed by DOE, that will be addressed in a Phase Two proceeding in accordance with this paragraph. Any expenditures associated with the Base Electric Delivery System Project not known and measurable at the conclusion of the next base rate proceeding, except any amount contributed by DOE, may be included by the Company in a subsequent Phase Two of the next base rate proceeding, during which the net capitalized costs of the Base Electric Delivery System Project, except any amount contributed by DOE, if deemed in that Phase Two of the next base rate case to be reasonable, prudent and incremental consistent with this paragraph, will be rolled into the Company's rate base. After the time of such roll-in in connection with any such Phase Two proceeding, the SGS will be used only as necessary to provide for the true-up of any under- or over-recovered costs, except any amount contributed by DOE. The SGS and SGS tariff will terminate following the conclusion of the base rate case or Phase Two of the base rate case, if any, when the balance of over- or under-recovered costs reaches zero.

Rate Design

29. The Signatory Parties stipulate that the SGS will be a non-bypassable cents per kilowatt hour surcharge applicable to all RECO distribution customers. The calculation of the initial SGS is set forth in Appendix B attached hereto and made a part of this Stipulation.

Rates and Impact

30. An initial SGS of $0.000162/kWh, including Sales and Use Tax ("SUT") ($0.000151/kWh without SUT), as set forth in Appendix B, would result in approximately $253,274 in revenue for the initial period. The SGS will result in a rate increase for a typical residential customer using 925 kWh per month of $0.15 or 0.08% during the initial period.

Quarterly Reporting

31. The Signatory Parties stipulate that the Company will provide the Board and Rate Counsel with a quarterly report ("Quarterly Report"), reflecting capital expenditures and the job growth resulting from the implementation of the Base Electric Delivery System Project on a quarterly basis. This reporting will begin 45 days after the end of the first full calendar quarter following the issuance of a final Board Order in this proceeding. To eliminate a duplication of effort, the Signatory Parties will make every effort to conform and be consistent with the quarterly information reported to the DOE. Any additional information or specific reporting requirements, over and above the information reported to the DOE, will be agreed upon once the contracts and requirements with the DOE are finalized.

32. The Company agrees to track the number of incremental contractor or other positions associated with the Base Electric Delivery System Project and will include that information with each Quarterly Report and Annual Filing submitted to the Board Staff and Rate Counsel.

The Company agrees, subject to DOE restrictions, to share with the Board Staff and Rate Counsel any test results data provided to DOE that is generated from the Base Electric Delivery System Project subject to the execution of any appropriate confidentiality agreements. The Company agrees, subject to DOE restrictions, to a sharing with ratepayers of the actual net proceeds received by RECO from the sale of RECO's intellectual property that is developed directly from the Company's Base Electric Delivery System Project ("RECO's Net Proceeds"). RECO agrees to a sharing of 50% of RECO's Net Proceeds with ratepayers.

If funding or credits from any subsequent state local, or federal action or other non-utility source are received by the Company for project reimbursement, the Company agrees that any such funds or credits directly applicable to work related to the SGIG Approved Project will be used to benefit RECO customers by offsetting the costs for which recovery will be sought to the extent permitted by law.

Bill Impacts:

Based on the Company's estimates, a typical residential customer using 925 kilowatt hours

("kWh") per month would pay an additional $0.15 per month in the first year of the Pilot Program; $0.35 per month during the second year; and $0.22 per month during the third year.

DISCUSSION AND FINDINGS

The Board has reviewed RECO's Base Electric Delivery Project proposal and believes that the Pilot Program will provide substantial improvements to the reliability of the Company's electric system, as well as enhanced quality of service to its customers in northwestern Bergen County. The Company's proposal is a "Smart Grid" Pilot Program in which two of the Company's substations, along with five circuits, would be upgraded to perform as an "intelligent" electric distribution system, resulting in a number of benefits to RECO's ratepayers.

Based on the information provided, it appears that RECO customers in the affected geographic area will directly benefit from the Pilot Program by the upgraded system's capability to minimize the extent of outages though automatic circuit sectionalizing in the event of a fault, thereby isolating the faulted area to a minimum number of customers. When disturbances do occur, power can be remotely restored to the affected customers. Thus, it is likely that electricity restoration to those customers should happen much more quickly than under the traditional and current method of manual switching with crews.

In addition, the Pilot Program promises greater distribution system efficiency by reducing line losses and optimizing system voltage levels and power factors. It establishes a platform for real-time advanced analytical and economic decision-making and control of the system, which is particularly important during distribution system congestion and contingency conditions, when customer electricity demand spikes or is interrupted. The Pilot Program allows for the integration of new distributed energy resources, including renewable energy, as new generation sites are developed.

The Pilot Program relies on an open architecture approach, creating a more flexible and easily integrated system with possible lower costs to ratepayers, compared to reliance on proprietary components and equipment. The experience and knowledge gained by the Company could allow future upgrades of the distribution system, and possibly deployment of Smart Grid beyond the Pilot Program's geographic area, with less technologic risk and lower costs to ratepayers.

Very importantly, federal funding will cover 50 percent of up to the $19.4 million total cost of the Pilot Program, which will significantly reduce the bill impact associated with the distribution system upgrades to the ratepayers in RECO's territory. The Board has carefully reviewed the Stipulation and believes that the agreement protects ratepayers from any unnecessary or imprudent expenses by ensuring that the Company's recovery of all costs associated with the Base Electric Delivery System Project will be subject to full and thorough prudence reviews within the context of a base rate case.

Capital expenditures can usually be recovered through a rate case only after projects are completed. N.J.S.A. 48:2-21. It is within a rate case that the property that is used and useful in the utility*s provision of service is evaluated, and the expenses that can become components of just and reasonable rates are determined. See, In re Investigation of Tele. Cos., 66 N.J. 476 (1975). While the Company currently has a rate case pending at the Office of Administrative Law, the Board sees no reason to require that the current case remain open for three years to allow review of the Pilot Program's proposed infrastructure improvements within the current case.

Instead, the Board will, in this case, allow the Company to begin recovery of capital expenses for this Smart Grid Pilot Project through the SGS on an interim basis subject to refund in the Company's next base rate case, which the Parties have agreed will be filed on or before December 1, 2013, as set forth in Paragraph 27 of the Stipulation. This authorization in no way sets a new framework or precedent for future actions; instead, it reflects the value of the 50% cost contribution opportunity by DOE through the SGIG which would otherwise be lost if the costs for the Pilot Program were recovered through the normal course of utility regulation.

For all the foregoing reasons, the Board **HEREBY FINDS** the Stipulation to be reasonable and in the public interest. Accordingly, the Board **HEREBY ADOPTS** the attached Stipulation and Appendices in their entireties, incorporating the terms and conditions thereof into this Order as if they were set forth at length herein. The Board **DIRECTS** that RECO commence implementation of the Pilot Program after the Company's completion of negotiations with DOE. Furthermore, the Board **DIRECTS** that the Company's reasonable and prudently incurred costs associated with the Base Electric Delivery System Project be recovered through a separate Smart Grid Surcharge ("SGS"), a cents per kilowatt hour surcharge applicable to all RECO distribution customers. The SGS shall commence no earlier than May 1, 2010, and in no event prior to all of the following: (1) a public hearing being held; (2) the Company resolving all issues with DOE and signing an agreement with DOE for the reimbursement of DOE's share of costs for the Base Electric Delivery System Project Pilot Program; and (3) the Company actually incurring costs related to implementation of the Base Electric Delivery System Project.

The Board **DIRECTS** that the Company file Annual Filings containing data, associated investment costs, the level of any proposed adjustments to the SGS, and other information on the Base Electric Delivery System Project, pursuant to the terms of the Stipulation. The Annual Filings will be subject to review by Board Staff and Rate Counsel, with opportunity for discovery and filed public comments. The first such Annual Filing shall be made no later than March 1, 2011. Furthermore, the costs of the Base Electric Delivery System Project will be subject to a full and thorough prudence review, within the context of the Company's next base rate case filed following the adoption of this Stipulation, to ensure that the Company's recovered costs are deemed reasonable and prudent.

The Company is **HEREBY DIRECTED** to file compliance tariff sheets ten business days prior to the proposed implementation date of the SGS.

DATED: 4/5/10

BOARD OF PUBLIC UTILITIES
BY:

LEE A. SOLOMON
PRESIDENT

JEANNE M. FOX
COMMISSIONER

JOSEPH L. FIORDALISO
COMMISSIONER

NICHOLAS ASSELTA
COMMISSIONER

ELIZABETH RANDALL
COMMISSIONER

ATTEST:

KRISTI IZZO
SECRETARY

I HEREBY CERTIFY that the within document is a true copy of the original in the files of the Board of Public Utilities

IN THE MATTER OF THE PETITION OF ROCKLAND ELECTRIC COMPANY REQUESTING SUPPORT FOR A SMART GRID PILOT PROPOSAL
DOCKET NO.ER09060459

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STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF ROCKLAND ELECTRIC COMPANY REQUESTING SUPPORT FOR A SMART GRID PILOT PROPOSAL **BPU DOCKET NO. ER09060459**

STIPULATION

APPEARANCES:

James C. Meyer, Esq., Riker Danzig Scherer Hyland & Perretti, LLP and **John L. Carley, Esq.**, Assistant General Counsel, for the Petitioner, Rockland Electric Company

Kurt S. Lewandowski, Esq., Assistant Deputy Public Advocate and **Brian Weeks**, Deputy Public Advocate, Department of the Public Advocate, Division of Rate Counsel (**Stefanie A. Brand, Esq.**, Director)

Alex Moreau, Deputy Attorney General, for the Staff of the New Jersey Board of Public Utilities (**Paula T. Dow**, Attorney General of New Jersey)

TO: THE NEW JERSEY BOARD OF PUBLIC UTILITIES

BACKGROUND

1. Rockland Electric Company ("RECO", the "Company", or "Petitioner") is a public utility engaged in the distribution of electricity to residential, commercial and industrial customers within the State of New Jersey and the procurement of Basic Generation Service ("BGS") on their behalf. RECO provides service to approximately 72,000 electric customers in northern Bergen and Passaic counties and small sections of Sussex County.

2. On February 17, 2009, the American Recovery and Reinvestment Act of 2009 was enacted (Public Law 111-5) ("Recovery Act"). The Recovery Act is intended to provide a stimulus to the United States economy in the wake of the economic downturn. Among other things, the Recovery Act funds enhanced domestic spending in the energy sector.

3. Pursuant to the Recovery Act, the United States Department of Energy ("DOE") is implementing a Smart Grid Investment Grant ("SGIG") Program[1] the purpose of which is to gain improvements in cost and performance from the deployment of smart grid technology. A smart grid may deliver electricity to consumers using better information and new and improved technology to save energy, reduce costs and increase reliability. Smart grid investments have the potential to help implement the necessary information systems and infrastructure upgrades to the electric grid that will enable it to work more reliably, work more efficiently, and effectively integrate renewable and energy efficient technologies and demand management practices. In addition to such benefits, the SGIG Program is expected to provide a further stimulus by creating jobs and increasing worker skills**.**

4. On April 17, 2009, the DOE issued a Notice of Intent to Issue a Funding Opportunity Announcement for the SGIG Program ("NOI"). The NOI (at 2) announced that as part of the SGIG Program, DOE will provide funding covering up to 50% of qualified investments requested by grant applicants. The NOI stated that DOE would apply a competitive, merit-based approach for providing funds to organizations for qualifying smart grid investment projects. The DOE updated the NOI by issuing the Smart Grid Investment Grant Program Funding Opportunity Initial Announcement dated June 25, 2009 ("Initial Announcement").

5. On June 10, 2009, the Company filed the Petition of Rockland Electric Company Requesting Support for a Smart Grid Pilot Proposal ("Petition") with the New Jersey Board of Public Utilities ("Board") pursuant to *N.J.S.A.* 48:2-1, *et seq*, which includes *N.J.S.A.* 48:2-21.1. As discussed in the Petition, RECO proposed a Smart Grid Pilot Program that would be comprised of a base electric delivery system project, an advanced metering infrastructure

[1] The SGIG Program was originally authorized by Section 1306 of the Energy Independence and Security Act of 2007 (Public Law 110-140) ("EISA") and later modified by the Recovery Act.

("AMI") system project, and customer interface and distributed energy resources ("DER") programs (collectively the Company's "SGIG Smart Grid Pilot Proposal"). RECO expressed its desire to apply for a smart grid technology deployment grant from the DOE pursuant to DOE's SGIG Program, in order to fund 50% of its SGIG Smart Grid Pilot Proposal.

6. In the Petition, the Company requested that the Board issue a letter or other writing expressing support for its SGIG Smart Grid Pilot Proposal. The Company stated that the issuance of written support by the Board was essential to having the DOE give due consideration to RECO's SGIG Smart Grid Pilot Proposal grant application. RECO also requested that the Board provide for the recovery of the costs of its SGIG Smart Grid Pilot Proposal not funded by the DOE since the DOE was seeking assurances with respect to the funding for SGIG Program costs not funded by the federal government.

On July 7, 2009, the Department of the Public Advocate, Division of Rate Counsel ("Rate Counsel") submitted a letter to the Board commenting on the Petition. Rate Counsel included, among other comments, the following: Petitioner should be able to recover in its next base rate case only up to 50% of the reasonable, prudent and incremental costs of its SGIG Smart Grid Pilot Proposal; with the information provided in the Petition, a determination could not be made in advance as to which of the costs of Petitioner's SGIG Smart Grid Pilot Proposal were reasonable, prudent and incremental; Petitioner's next base rate case should include a thorough investigation of the benefits and costs, including stranded costs, of its SGIG Smart Grid Pilot Proposal; and Petitioner should share with State regulators including Rate Counsel any data collected through the implementation of the SGIG Smart Grid Pilot Proposal.

7. Consolidated Edison Company of New York, Inc. ("CECONY") filed three applications with DOE ("DOE applications") on behalf of Orange and Rockland Utilities, Inc.

(i.e., RECO's parent company) that included RECO's SGIG Smart Grid Pilot Proposal: (i) an electric distribution SGIG application, (ii) an AMI SGIG application, and (iii) an application for a Smart Grid Demonstration Grant ("SGDG") Project for a commercial and residential battery storage pilot project.

8. As part of those DOE applications, CECONY submitted evidence of the Board's support of RECO's participation in these projects. CECONY included a letter dated August 3, 2009, from the Board's Executive Director to Ms. Donna Williams, Contract Specialist at the DOE. The Executive Director stated that he welcomed RECO's submittal as part of the CECONY filing to the DOE for a SGIG electric distribution investments. The Executive Director also conveyed the Board's endorsement of the principles of Smart Grid deployment, and informed the DOE that the Board will act expeditiously to evaluate RECO's Smart Grid submittal. The CECONY applications also included a letter dated August 6, 2009 to Secretary of Energy Steven Chu from the former New Jersey Governor voicing his support for the Company's application for a stimulus grant under the DOE's SGIG Program.

9. By letter dated October 27, 2009, the DOE notified CECONY that its SGIG application (which included the Base Electric Delivery System Project of RECO's SGIG Smart Grid Pilot Proposal (the "Accepted SGIG Program")) had been selected for "award negotiations" with DOE. The DOE did not select the AMI or DER portions of RECO's SGIG Smart Grid Pilot Proposal. RECO expects that these award negotiations will conclude shortly and that a financial assistance agreement will be executed with DOE during the first quarter of 2010. On November 25, 2009, DOE notified CECONY that its SGDG application (which includes the commercial and residential battery storage pilot project portion of RECO's DOE applications (the "Accepted SGDG Program")) also had been selected for "award negotiations" with DOE. Given the delay

in negotiating an agreement with DOE regarding the SGDG application, this Stipulation will not address the SGDG application and the SGDG will be addressed in a separate stipulation. RECO does not presently have information on the DOE's schedule for negotiation of the SGDG award but believes negotiations should conclude with execution of an agreement with DOE during the second calendar quarter of 2010.

10. On or about January 15, 2010, the Company filed its Amended Verified Petition ("Amended Petition") which reflected updated information including substituting the Accepted SGIG Program (i.e., the SGIG Base Electric Delivery System Project) for its original SGIG Smart Grid Pilot Proposal and adding the Accepted SGDG Program (i.e., the SGDG battery storage pilot project), and requested cost recovery. The Company requested that the Board provide for rate recovery of the funding for the Accepted SGIG Program and the Accepted SGDG Program (collectively, the "Accepted SGIG and SGDG Programs") not covered by the DOE subject to the Board's ability to fully and thoroughly examine the Accepted SGIG and SGDG Programs within the context of a base rate case.

11. The Board has maintained jurisdiction over the Petition and Amended Petition.

12. Representatives of RECO, Board Staff and Rate Counsel (collectively, the "Signatory Parties"), the only parties to this proceeding, have met and held in-person and telephonic conferences to discuss the issues in this case, reviewed additional information requested from the Company and agreed that the Company's Accepted SGIG Program described in its Amended Petition, as modified, amended and described below, and associated interim cost recovery mechanism, as set forth herein, are reasonable and in the public interest.

Specifically, the Signatory Parties hereby **STIPULATE AND AGREE** to the following:

STIPULATED MATTERS

The Base Electric Delivery System Project

13. For SGIG funding the DOE has selected, and the Company shall implement, the Base Electric Delivery System Project identified and described in Appendix A to this Stipulation ("Accepted SGIG Program"). Since the DOE did not select the AMI System Project and the other (i.e., non-Battery Storage Program) components of the Company's proposed customer interface and DER programs for co-funding, the Company will not pursue their implementation at this time. The Accepted SGDG Program (i.e., the SGDG battery storage pilot project) will not be the subject of this Stipulation.

14. The total cost of the Base Electric Delivery System Project selected by DOE for award negotiations is $19.4 million comprised of the following estimated costs:

- Distribution System $6.62 million;
- Substation System $10.73 million; and
- Communication System $2.03 million.

It is expressly agreed by the Signatory Parties that RECO's ratepayers will fund the revenue requirement associated with 50% of up to $19.4 million of prudent, reasonable and incremental costs for the Base Electric Delivery System Project (i.e., the Accepted SGIG Program), subject to the terms and conditions of this Stipulation.

15. RECO anticipates that the DOE stimulus grant will cover 50% of the $19.4 million cost of the Base Electric Delivery System Project.

16. The Signatory Parties recognize that smart grid technologies offer an opportunity to modernize the electrical grid and enable various benefits to end users, the environment and the utilities. As described in Appendix A, the Base Electric Delivery System Project is anticipated

to provide a variety of benefits, particularly improved distribution system reliability. The Signatory Parties further acknowledge that there is a benefit to obtaining 50% federal funding for the Base Electric Delivery System Project in this State.

17. In order for the Company to implement the Base Electric Delivery System Project, however, the Company must have a means to recover, through a tariff-based mechanism, 50% of the up to $19.4 million of prudent, reasonable and incremental Accepted SGIG Program costs. The Signatory Parties stipulate that the Board should provide the Company with a means to recover from its ratepayers 50% of the up to $19.4 million cost of the Base Electric Delivery System Project, subject to the provisions of this Stipulation. The Company anticipates that DOE will fund 50% of this amount, and the ratepayer contribution will be subject to the DOE ultimately funding its share of 50% of the program costs.

Since the Base Electric Delivery System Project is a pilot program with 50% of the costs anticipated to be funded by the DOE, the cost recovery mechanism to which the Signatory Parties agree in this proceeding shall not constitute precedent in any subsequent rate case, petition or other proceeding in which the Company seeks to increase its rates or tariffs other than any proceeding provided for in this Stipulation related to the recovery of the costs of the Base Electric Delivery System Project (i.e., the Accepted SGIG Program).

18. The Signatory Parties stipulate that the Board should approve on an interim basis, subject to refund, cost recovery through the implementation of a Smart Grid Surcharge ("SGS") of 50% of the up to $19.4 million costs of the Accepted SGIG program, subject to prudence review in the Company's next base rate case filed following the adoption of this Stipulation. The Company's next base rate case shall be filed on or prior to December 1, 2013. Recovery of eligible SGIG costs shall commence on or after May 1, 2010 subject to the

terms and conditions as set forth in paragraph 22. In any such prudence review, the record of this proceeding, including the Company's Petition, the Amended Petition, this Stipulation and all discovery, shall be fully incorporated and considered.

19. The Base Electric Delivery System Project will reflect the estimated construction start and completion dates set forth in Appendix A, subject to the following: (a) RECO will commence implementation of the Base Electric Delivery System Project following completion of negotiations with DOE upon terms acceptable to each of the Signatory Parties and after receipt of a written Board Order in this proceeding, and (b) the Base Electric Delivery System Project pilot will conclude on or before June 1, 2013.

Cost Recovery Mechanism

20. The Signatory Parties stipulate that the revenue requirement recovered through the SGS will be calculated to include a return on investment, a return of investment through depreciation, and the incremental operation and maintenance expenses that will be limited to the Base Electric Delivery System Project set forth in Appendix A. Such investment will include capitalized costs net of deferred taxes related to the Base Electric Delivery System Project. The Signatory Parties further stipulate that this calculation will use the depreciation rates and methodology and the after–tax overall weighted average cost of capital ("WACC") utilized to set rates in the Company's most recently decided base rate case, BPU Docket No. ER06060483, which was 7.83% (10.97% on a pre-tax basis), based upon a return on equity of 9.75%. The Signatory Parties agree that any change in the WACC and depreciation rates authorized by the Board in a subsequent base rate case (including the Company's now-pending base rate case) will be reflected in the subsequent monthly revenue requirements and

interest calculations commencing with the month such changes become effective. In addition, the Company will update the rates used in Appendix B, applicable to tax depreciation, if the current pending proposal in Congress to extend bonus depreciation is approved.

21. The Signatory Parties stipulate that the initial SGS will be set based on the Company's projected cost data and resulting revenue requirement and a forecast of the Company's kWh deliveries to customers during the initial period the SGS is in effect. The SGS will be subject to annual adjustments to reset the SGS to recover the forecasted revenue requirement for the succeeding twelve month period, plus true-ups for any prior period over- or under-collections, based on the forecasted kWh deliveries for customers during the period in which the revised SGS will be in effect. The calculation of the revenue requirement for the purpose of setting the initial SGS for the initial twelve-month period is set forth in Appendix B attached hereto and made a part of this Stipulation.

22. The initial SGS shall become effective following the Board's issuance of a written order approving this Stipulation but no earlier than May 1, 2010 subject to the following condition:

a. A public hearing must be held prior to the implementation of the SGS interim rate;

b. the Company commences incurring costs for the Base Electric Delivery System Project; and

c. the Company has resolved all issues with the DOE and has signed an agreement with DOE for the reimbursement of the DOE's share of costs for the Base Electric Delivery System Project pilot program.

23. The annual revenue requirement calculation for the Base Electric Delivery

System Project for the initial twelve-month period will commence during the month in which the SGS is implemented and will be based upon projected expenditures for the Base Electric Delivery System Project. The monthly over- and under-recovery calculation will be based on actual revenues received under the SGS mechanism and the actual revenue requirement for the Base Electric Delivery System Project for each month. A sample calculation is set forth in Appendix C. The annual revenue requirement calculation used to set the SGS will follow the methodology set forth in Appendix B attached hereto and made a part of this Stipulation.

24. The Signatory Parties stipulate that the Company will file an annual petition ("Annual Filing") to adjust its SGS on a twelve-month basis, with copies provided to Board Staff and Rate Counsel, no later than March 1 of each year for a proposed June 1 implementation of the revised SGS, and shall contain the information set forth in Appendix D (Minimum Filing Requirements) and made a part of this Stipulation. The first SGS true-up filing will be made on March 1, 2011. Each Annual Filing will contain a forecast of the annual revenue requirement associated with the Base Electric Delivery System Project for the period during which the SGS will be in effect; a reconciliation of SGS recoveries and the actual revenue requirement for the twelve-month period[2] ended the last day of January of the year in which the Annual Filing is made; and other appropriate information.

25. In calculating the monthly interest on net over- and under-recoveries, interest shall be calculated as determined by the Board in its Order dated October 21, 2008 in Docket No. ER08060455. As set forth in that Order, the interest rate shall be the interest rate based on

[2] The Parties understand and agree that in the first SGS true-up filing the period subject to reconciliation will be the period commencing with the first calendar month in which the Company commences incurring costs for the Base Electric Delivery System Project and ended the last day of January, 2011.

two-year constant maturity Treasuries as published in the Federal Reserve Statistical Release on the first day of each month (or the closest day thereafter on which rates are published), plus 60 basis points, but shall not exceed the Company's pre-tax WACC as identified in Paragraph 20 above. The interest rate shall be reset each month. The interest amount charged to the SGS will be computed using the methodology set forth in Appendix C attached hereto and made a part of this Stipulation. The calculation of monthly interest shall be based on the net of tax beginning and ending average monthly balance. Simple interest will be calculated each month for any over- or under-recovery and will be deferred for recovery or refund. The simple interest will be recovered or refunded when it is included in the deferred balance at the end of the annual period. The true-up calculation of over- and under-recoveries, including interest, shall be included in the Company's Annual Filing.

26. Data on the Base Electric Delivery System Project and the associated investment costs included in the Annual Filing, as well as the level of the proposed SGS, will be subject to review by Board Staff and Rate Counsel, with opportunity for discovery and filed comments, prior to the issuance of a Board Order establishing the Company's new annual SGS. The issuance of a written Order will be preceded by adequate Public Notice and Public Hearings if required by law.

Base Rate Case Review

27. The Signatory Parties stipulate that, in the context of the Company's next base rate case filed following the adoption of this Stipulation, the costs of the Base Electric Delivery System Project will be subject to a full and thorough prudency review. The Company's next base rate case shall be filed on or prior to December 1, 2013. In that next base rate case, the

Company shall have the burden of proving that the net capitalized amounts associated with the Base Electric Delivery System Project, except any amount contributed by DOE, are reasonable, prudent and incremental and that they have not already been included in its rate base. The Signatory Parties further stipulate that, if required, full evidentiary hearings with respect to the Base Electric Delivery System Project and related costs will take place in that base rate case proceeding. The record of this proceeding, including the Petition, the Modified Petition, this Stipulation and all discovery shall be fully incorporated and considered.

28. The Signatory Parties further stipulate that during the Company's next base rate case filed following the adoption of this Stipulation, and filed on or prior to December 1, 2013, the net capitalized amounts associated with the Base Electric Delivery System Project, except any amount contributed by DOE, if such amounts are deemed in that next base rate case to be reasonable, prudent and incremental, will be rolled into the Company's rate base. Thereafter, the SGS will be used only as necessary to provide for the true-up of any under- or over-recovered costs or the continued recovery of costs associated with the Base Electric Delivery System Project, except any amount contributed by DOE, that will be addressed in a Phase Two proceeding in accordance with this paragraph. Any expenditures associated with the Base Electric Delivery System Project not known and measurable at the conclusion of the next base rate proceeding, except any amount contributed by DOE, may be included by the Company in a subsequent Phase Two of the next base rate proceeding, during which the net capitalized costs of the Base Electric Delivery System Project, except any amount contributed by DOE, if deemed in that Phase Two of the next base rate case to be reasonable, prudent and incremental consistent with this paragraph, will be rolled into the Company's rate base. After the time of such roll-in in connection with any such Phase Two proceeding, the SGS will be used only as

necessary to provide for the true-up of any under- or over-recovered costs, except any amount contributed by DOE. The SGS and SGS tariff will terminate following the conclusion of the base rate case or Phase Two of the base rate case, if any, when the balance of over- or under-recovered costs reaches zero.

Rate Design

29. The Signatory Parties stipulate that the SGS will be a non-bypassable cents per kilowatt hour surcharge applicable to all RECO distribution customers. The calculation of the initial SGS is set forth in Appendix B attached hereto and made a part of this Stipulation.

Rates and Impact

30. An initial SGS of $0.000162/kWh, including Sales and Use Tax ("SUT") ($0.000151/kWh without SUT), as set forth in Appendix B, would result in approximately $253,274 in revenue for the initial period. The SGS will result in a rate increase for a typical residential customer using 925 kWh per month of $0.15 or 0.08% during the initial period.

Quarterly Reporting

31. The Signatory Parties stipulate that the Company will provide the Board and Rate Counsel with a quarterly report ("Quarterly Report"), reflecting capital expenditures and the job growth resulting from the implementation of the Base Electric Delivery System Project on a quarterly basis. This reporting will begin 45 days after the end of the first full calendar quarter following the issuance of a final Board Order in this proceeding. To eliminate a duplication of effort, the Signatory Parties will make every effort to conform and be

consistent with the quarterly information reported to the DOE. Any additional information or specific reporting requirements, over and above the information reported to the DOE, will be agreed upon once the contracts and requirements with the DOE are finalized.

32. The Company agrees to track the number of incremental contractor or other positions associated with the Base Electric Delivery System Project and will include that information with each Quarterly Report and Annual Filing submitted to the Board Staff and Rate Counsel.

The Company agrees, subject to DOE restrictions, to share with the Board Staff and Rate Counsel any test results data provided to DOE that is generated from the Base Electric Delivery System Project subject to the execution of any appropriate confidentiality agreements. The Company agrees, subject to DOE restrictions, to a sharing with ratepayers of the actual net proceeds received by RECO from the sale of RECO's intellectual property that is developed directly from the Company's Base Electric Delivery System Project ("RECO's Net Proceeds"). RECO agrees to a sharing of 50% of RECO's Net Proceeds with ratepayers.

If funding or credits from any subsequent state local, or federal action or other non-utility source are received by the Company for project reimbursement, the Company agrees that any such funds or credits directly applicable to work related to the SGIG Approved Project will be used to benefit RECO customers by offsetting the costs for which recovery will be sought to the extent permitted by law.

FURTHER PROVISIONS

33. This Stipulation represents a mutual balancing of interests, contains interdependent provisions and, therefore, is intended to be accepted and approved in its entirety. In the event any particular aspect of this Stipulation is not accepted and approved in its entirety

by the Board, any Party aggrieved thereby shall not be bound to proceed with this Stipulation and shall have the right to litigate all issues addressed herein to a conclusion. More particularly, in the event this Stipulation is not adopted in its entirety by the Board, in any applicable Order(s), then any Party hereto is free to pursue its then available legal remedies with respect to all issues addressed in this Stipulation as though this Stipulation had not been signed.

34. This Stipulation, together with any attachments or exhibits specifically referenced herein, constitutes the entire agreement between the Signatory Parties with respect to the Accepted SGIG Program, supersedes all prior oral or written representations and contracts, and may be modified only by a written amendment signed by the Signatory Parties. It is the intent of the Signatory Parties that the provisions hereof be approved by the Board as being reasonable and in the public interest. The Signatory Parties further agree that they consider the Stipulation to be binding on them for all purposes herein.

35. It is specifically understood and agreed that this Stipulation represents a negotiated agreement and has been made exclusively for the purpose of these proceedings. Except as expressly provided herein, RECO, the Board Staff and Rate Counsel shall not be deemed to have approved, agreed to, or consented to any principle or methodology underlying or supposed to underlie any agreement provided herein and, in total or by specific item, is in no way binding upon them in any other proceeding, except to enforce the terms of this Stipulation.

WHEREFORE, the Signatory Parties hereto do respectfully submit this Stipulation and request that the Board issue a Decision and Order approving it in its entirety, in accordance with the terms hereof, as soon as reasonably possible.

ROCKLAND ELECTRIC COMPANY

By: _____
James C. Meyer, Esq.
Riker Danzig Scherer Hyland & Perretti, LLP

Dated: March 23, 2010

DEPARTMENT OF THE PUBLIC ADVOCATE
DIVISION OF RATE COUNSEL
STEFANIE A. BRAND,
ACTING PUBLIC ADVOCATE &
DIRECTOR, DIVISION OF RATE COUNSEL

By: _____

Deputy Public Advocate

Dated: March 23, 2010

STAFF OF THE NEW JERSEY BOARD OF PUBLIC UTILITIES
PAULA T. DOW
ATTORNEY GENERAL OF NEW JERSEY

By: _____
Alex Moreau
Deputy Attorney General

Dated: March 23, 2010

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Dated: March 23, 2010

DEPARTMENT OF THE PUBLIC ADVOCATE
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STEFANIE A. BRAND,
ACTING PUBLIC ADVOCATE &
DIRECTOR, DIVISION OF RATE COUNSEL

By: _____
Brian Weeks
Deputy Public Advocate

Dated: March 23, 2010

STAFF OF THE NEW JERSEY BOARD OF PUBLIC UTILITIES
PAULA T. DOW
ATTORNEY GENERAL OF NEW JERSEY

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Alex Moreau
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PAULA T. DOW
ATTORNEY GENERAL OF NEW JERSEY

By: _____
Alex Moreau
Deputy Attorney General

Dated: March 23, 2010

Appendix A

ROCKLAND ELECTRIC COMPANY

SMART GRID PILOT PROPOSAL

Updated: March 9, 2010

Rockland Electric Company

"This Document Contains Critical Energy Infrastructure Information"

Not for release to the General Public

EXECUTIVE SUMMARY

Rockland Electric Company ("RECO" or "the Company") proposes to implement a "Smart Grid" pilot project at the Company's recently constructed Darlington Substation in Ramsey, New Jersey ("NJ"), and the existing South Mahwah Substation, in Mahwah, NJ, that the Company plans on upgrading by 2011. RECO plans to couple state-of-the-art equipment and technology with advances in computer analysis, communications, monitoring, and control to significantly enhance system reliability and quality of service. The selected area for implementation would be upgraded to perform as an "intelligent" electric distribution system through the development and use of advanced sensors, field devices and utilization of improved information and control through diverse communications. Advanced analytical real time decision-making software and sophisticated equipment and controls would be integrated into Control Center Operations.

The Smart Grid pilot project would be implemented over a three-year period at a total cost of approximately $19.4 million for the base electric delivery system project. The RECO Smart Grid pilot project will be capable of: (1) providing an enhanced level of service reliability; (2) automatically restoring customers when disturbances occur, and minimizing the extent of outages through advanced distribution automation; (3) improving efficiency by dynamically minimizing real time losses and maximizing system performance through the control of voltage, power factor, and load distribution; and, (4) establishing the framework for the development and implementation of a fully integrated system model ("ISM") that will enable asset management across numerous system assets and variables as the system continues to become substantially more complex, and allow for advanced analytical and economic decision-making and control to be made and executed in real time on the electric delivery system.

This pilot project will provide substantial improvements to electric system reliability and enhancements to the quality of service to customers. RECO's Smart Grid operating system proposal demonstrates significant and forward-looking improvements in the design, engineering, operation and advanced control of the electric delivery system that will benefit the Company's customers. As the success of this pilot is confirmed and benefits realized, the Company will then be able to deploy Smart Grid beyond the pilot area with less technological risk and cost.

I. INTRODUCTION

RECO proposes the implementation of a "Smart Grid" pilot project in northwestern Bergen County, NJ. The project would be implemented in the vicinity of the Darlington Substation, located in Ramsey, and the South Mahwah Substation, in Mahwah, NJ. This project would include four of Darlington's 13.2 kV electric distribution circuits, one of South Mahwah's 13.2 kV electric distribution circuits, and all of the customers served from these circuits.

As part of the Company's Smart Grid pilot project, these five circuits would be upgraded to perform as an "intelligent" electric distribution system network through the development and use of advanced sensors, field devices, diverse communications channels, advanced analytical on-line decision-making software, and sophisticated equipment and controls. The system framework will provide the opportunity to incorporate distributed energy resources. The primary objectives of this pilot project are as follows:

(i) Automatic restoration of customers when disturbances occur, and minimization of the extent of outages through expanded distribution automation;

(ii) Minimize real time losses and maximize system performance through the control of voltage, power factor, and load distribution;

(iii) Provide substantial improvement in service reliability levels; and

(iv) Provide a platform that can implement distributed energy resources that can be used to operate the electric delivery system more effectively during peak loading and / or contingency conditions.

A more detailed overview of the proposed pilot project and the associated improvements to the electric distribution system, substation facilities, and communications systems are described below.

II. REQUIRED SYSTEM INFRASTRUCTURE IMPROVEMENTS

A. Electric Distribution System

The development of the intelligent electric distribution system would include the monitoring, automation, and intelligent control of four Darlington Substation 13.2kV distribution circuits in Ramsey, NJ, and one South Mahwah Substation 13.2kV distribution circuit in Mahwah, NJ. These circuits presently serve 4,394 customers, predominantly in the Boroughs of Ramsey, Mahwah, and Franklin Lakes. Of those customers, 4,129 are residential and 265 are commercial and industrial. This represents 6.2% of all customers served in RECO's service territory.

A new distribution circuit is being extended from the Darlington Substation in 2010 in order to intercept the existing Darlington circuit 43-6-13[1], effectively splitting the customers between these two circuits. This new circuit, 43-2-13, would then be paired with existing Darlington circuit 43-6-13 through a traditional two circuit automatic loop scheme. A short section of distribution overhead circuitry (approximately 1200 feet) must be constructed to accommodate the proper configuration for this auto-loop. The newly reconfigured circuit 43-6-13 will then be tied to a third circuit (existing circuit 43-3-13) to expand the automatic loop scheme. The geographic location of the proposed circuits is shown in Exhibit #1.

In order to broaden the impact, exposure and benefits of this proposed Smart Grid pilot program, the Company will implement a third automatic loop scheme between two different substations. This automatic loop scheme will connect Darlington Substation circuit 43-7-13 and South Mahwah Substation circuit 58-1-13 along Route 202, in Mahwah, NJ. The geographic location of the proposed circuits is shown in Exhibit #2. This loop scheme will include the service to Ramapo College along Route 202.

The basic scheme for each of the auto-loops would consist of an in-line recloser located at the mid-point of each circuit to provide automatic sectionalizing in the event of a fault, and a tie recloser installed at the open point between the two circuits to automatically sense the loss of power on the circuit in distress and attempt to restore power from the unaffected circuit. Equipment control logic would be employed for fast fault clearing and the automatic operation of the loop system. These devices would all be equipped with a supervisory control override and would communicate with a distribution control system computer, to be located at RECO's Energy Control Center ("ECC"). Additionally, smart

[1] RECO 's distribution circuits are designated based on their source substation, circuit number emanating from the substation and voltage. For instance, circuit 43-6-13 is circuit number 6 from substation number 43 (i.e., Darlington) and operates at 13 kV.

recloser switches would be installed on each circuit between the loop reclosers. These smart recloser switches would be equipped with voltage and current sensing devices in communication with the control system computer, and will be capable of remote operation. After the traditional automatic operation of the loop scheme, the control system computer will poll the automatic reclosers and smart switches for status and system parameters sensed during the fault. The computer would analyze this information to optimize further circuit configuration and isolation of the faulted region of the circuit through remote control of the smart switches without manual intervention. This will restore additional customers much more quickly than the traditional and current method of manual switching with crews, without violating load and voltage constraints, thereby isolating the faulted area to the minimum number of customers affected that would be allowable by the scheme and conditions.

Optimization of losses, system voltage levels and power factor is also a goal of this project. During normal system operation, intelligently controlled switched capacitor banks can optimize reactive power requirements and voltage, as well as minimizing system losses. Capacitor bank controls will be equipped with communications capabilities and will be placed under computer control and switched based on real time analysis of system parameters. Additional current sensors will be installed along the circuitry at strategic points and communications will be established with these devices. Dynamic circuit data will be fed into the control system computer to refine real-time load and voltage profiles, to determine what actions are required to optimize circuit operating conditions. The control system will control voltage regulating devices and switch capacitors on and off as required. Actual results will be verified back to the control system. If and when coupled with AMI data in the future, the data can be further optimized. A depiction overview of this Smart Grid distribution system is shown in Exhibit #3.

The approach proposed by the Company utilizes a combination of distributed and centralized control logic and is independent of any one manufacturer of field devices. A number of manufacturers are currently offering intelligent distribution system control; however, their systems are proprietary and only work in conjunction with other equipment they manufacture, which weds the utility to the manufacturer. Utilization of the open architecture approach that RECO proposes will be a considerably more flexible, easily integrated and lower cost alternative. It will be critical, however, to make this open architecture equipment and communications compatible with the critical infrastructure protection (“CIP”) standards. This will entail a substantial and ongoing effort to understand and incorporate all of the requirements, to attain CIP compliance, and remain there.

The centralized control system computer will operate utilizing Distribution Engineering Workstation ("DEW") open architecture software as its Distribution Management System ("DMS"). This software allows for applications to be developed and easily integrated into the DMS, providing the necessary flexibility to allow development of real time control modules that work in conjunction with existing applications with such functionality as power flow, reconfiguration for restoration, reactive power optimization, loss minimization and demand side management.

Just some of the additional advancements and benefits that the Company anticipates garnering from a smarter distribution grid include the following:

- Advanced field equipment with technologies beyond their primary functions, such as reclosers, capacitor banks, regulators, and other equipment likely yet to be developed with power quality functions, oscillography and supervisory control and data acquisition ("SCADA") capabilities.
- Advanced SCADA applications where the ECC Distribution Operators will have highly detailed and intuitive visual displays, one-line diagrams and menus to find system data quickly.
- Advanced SCADA alarm filtering, so the ECC Distribution Operators get the data they need, when they need it and not be overwhelmed or confused by more numerous and lesser priority alarms.
- Computer systems that will track and trend large amounts of data, with methods that are quick to access and easy to understand and for anyone to view in the Company.
- Computer systems that will be more wholly integrated together for greater access to the existing corporate data, which will be integrated with the new systems and data for improved operations and decision analysis.

The implementation of this Smart Grid Pilot project will require a phased-in approach as follows:

- Phase I – Construct new electric distribution circuitry and install the sensing and sectionalizing devices and smart switches to establish the auto-loops. Confirm the accuracy of the DEW circuit model for the five distribution circuits;
- Phase II – Establish two-way communications with these devices allowing SCADA. Integrate real time information into DMS;
- Phase III – Develop the necessary control logic in DEW to place the auto loops under DMS control;
- Phase IV – Develop control logic to optimize voltage, power factor, and losses;

- Phase V – Modify capacitor bank installations and sensors and establish two way communications;
- Phase VI – Place capacitors under DMS control; and

Timeframes for implementation of the distribution system improvements are shown in Exhibit #4.

B. Substations Supporting the Smart Grid Pilot

The two substations proposed to be a part of RECO's initial Smart Grid pilot project are the Darlington and South Mahwah Substations. A short description of the substations and the required Smart Grid functionality improvements is provided below.

The Darlington Substation, newly constructed in 2004, is a 138kV substation fed by two 138kV underground feeders. The substation contains two 35MVA, 138-13.2kV distribution banks feeding switchgear with an eight-circuit capability. Six circuit positions are presently utilized, with the seventh scheduled to be installed in 2010.

The Darlington Substation is equipped with modern micro-processor based relays, remote terminal equipment for SCADA, and an existing fiber optic communications infrastructure. The Company is proposing to make Darlington a Smart Grid enabled substation, with Smart Grid improvements to the equipment and communications infrastructure that will substantially enhance RECO's data acquisition and remote diagnostic capability. The improved communications would be coupled with an advanced substation software package to allow for better data processing and management, both locally and remotely.

The initial Darlington Substation Smart Grid improvements to be implemented are as follows:

- Utilization of a fiber-optic connection to the substation to increase and improve the polling speed and transfer of information from the existing Remote Terminal Unit ("RTU") to the ECC.
- Utilization of fiber optics connections to the substation will allow for greater amounts of information to be brought back to the ECC for analysis. Fiber optics will also improve communication performance and allow for better security. Existing communications to the substations require telephone lines that are not as secure, have slower

transmitting speeds and are not reliable as fiber. Each of these concerns would be eliminated with the use of fiber optics.

- Install a new data connection to the substation via fiber-optic communications for connection to the Company's Enterprise Server. The Enterprise Server connection will provide secure remote access to the devices in the substation for transfer of fault files, thereby allowing for post-event analysis of these incidents prior to dispatching crews to the substation. The Enterprise Server is designed as a NERC/CIP compliance solution for advanced user authentication and data encryption. The system automatically creates and manages remote connections, tracks all user activity, and proactively prevents connection attempts to restricted devices.
- Install a new substation server in order to provide advanced substation functionality, including:
    - Centralized collection point for intelligent electronic devices such as relays and meters.
    - Data log critical power system quantities that will be fed into the SCADA system and DEW. The information will assist in system planning and restoration needs.
    - Automatic fault retrieval and file transfer to the ECC.
    - Authenticated secure device access.
- Time Synchronization of all protection relays to allow for the time stamping coordination of data from the individual devices within the substation. This will allow for a better analysis of events and disturbances.
- Upgrade to a Smart Annunciator for increased alarm capability and better decision making by the ECC System Operators. Knowing what the actual alarm is, instead of a category of the alarm as is currently provided, will facilitate improved system decisions and resource deployment.
- Connect Transformer and Breaker Diagnostic equipment to the substation server for remote interrogation and routine exception reporting in order to increase and improve the reliability of the major components in the substation. This will identify incipient faults in the units, better protect equipment from failure, and reduce adverse impact to customers from service interruptions. Benefits also include the advanced monitoring of equipment in real time which allows for dynamic ratings achieved through the analysis of real time operating temperatures. The goal will be for a time based maintenance schedule to be replaced with a condition based maintenance schedule.

The South Mahwah Substation is located in Mahwah, NJ, and serves a substantial and important commercial and industrial load in the northern Route 17 area of northwest Bergen County. As mentioned previously, the upgrade of the station is required to meet the Company's distribution planning criteria. The upgrades include two new 138 – 13.2kV, 50 MVA distribution banks and new 13.2kv metalclad switchgear. This increased bank capacity enables additional distribution circuits to be installed, that will reduce local area circuit loading and allow one of the South Mahwah circuits to become a smart grid circuit with an auto-loop tie to one of the Darlington Smart Grid circuits. Along with the distribution and substation system infrastructure improvements, the Company is proposing to make the upgraded South Mahwah Substation a Smart Grid enabled station. The existing substation equipment dates back to the early 1970's. The relays, breakers, switchgear and controls must be upgraded to new state-of-the-art technology to allow this station to be fully integrated into this Smart Grid project proposal and provide the advanced functionality that will be necessary to successfully achieve the goals of this project. Additional Smart Grid improvements at this substation will coordinate with the improvements at the Darlington Smart Grid Substation. These are as follows:

- Utilization of a fiber-optic connection to the substation to increase and improve the polling speed and transfer of information from the existing RTU to the ECC.
- Utilization of fiber optics connections to the substation will allow for greater amounts of information to be brought back to the ECC for analysis. Fiber optics will also improve communication performance and allow for better security. Existing communications to the substations require telephone lines that are not as secure, have slower transmitting speeds and are not reliable as fiber. Each of these concerns would be eliminated with the use of fiber optics.
- Install a new data connection to the substation via fiber-optic communications for connection to the Company's Enterprise Server. The Enterprise Server connection will provide secure remote access to the devices in the substation for transfer of fault files, thereby allowing for post-event analysis of these incidents prior to dispatching crews to the substation. The Enterprise Server is designed as a NERC/CIP compliance solution for advanced user authentication and data encryption. The system automatically creates and manages remote connections, tracks all user activity, and proactively prevents connection attempts to restricted devices.

- Install a new substation server in order to provide advanced substation functionality, including:
    - Centralized collection point for intelligent electronic devices such as relays and meters.
    - Data log critical power system quantities that will be fed into the SCADA system and DEW. The information will assist in system planning and restoration needs.
    - Automatic fault retrieval and file transfer to the ECC.
    - Authenticated secure device access.
- Time Synchronization of all protection relays to allow for the time stamping coordination of data from the individual devices within the substation. This will allow for a better analysis of events and disturbances.
- Connect Transformer and Breaker Diagnostic equipment to the substation server for remote interrogation and routine exception reporting in order to increase and improve the reliability of the major components in the substation. This will identify incipient faults in the units, better protect equipment from failure, and reduce adverse impact to customers from service interruptions. Benefits also include the advanced monitoring of equipment in real time which allows for dynamic ratings achieved through the analysis of real time operating temperatures. The goal will be for a time based maintenance schedule to be replaced with a condition based maintenance schedule.

For all of the proposed substation equipment, intelligent devices and communications, it will be critical to design and integrate them with compatibility to certain cyber-security standards, and some of the equipment at the South Mahwah Substation to CIP standards. This will entail a substantial and ongoing effort to understand all of the requirements for incorporation, to attain compliance, and remain there. These likely will entail sizeable design and personnel issues and costs, such as physical and system infrastructure security and personnel security and risk assessments. Timeframes for implementation of the substation system improvements are shown in Exhibit #4.

C. Communications

The communications objective for the RECO Smart Grid initiative is to provide backhaul and field device communications throughout the Ramapo – Mahwah, NJ areas.

Enhancements to the communications infrastructure will provide a means for data retrieval in and out of the New Jersey area at two diverse RECO facilities.

Communications with Remote Field Devices

Radio communications will be used to communicate with many types of intelligent devices on the targeted RECO smart distribution circuits, including reclosers, capacitor banks, fault locators and power quality meters to name a few. Radio coverage studies will be performed to assist in determining radio frequency ("RF") coverage adequacy at different frequencies. Part of the evaluation and study will be to determine available Spectrum for use. Once determined, RF studies will be run using the identified and potentially available RF spectrum.

RECO owns and operates one radio tower site in Mahwah, NJ. A second master radio site will be needed in order to communicate to all remote radio Smart Grid field devices. The second radio master will be constructed or RECO will utilize space on an existing tower, if available. Depending on the radio spectrum availability, there may be a requirement to also locate radio repeaters on selected RECO distribution poles in selected areas. The radio engineering study will assist in determining the design criteria for the proposed radio communication requirements.

Smart Grid data will be carried across the radio communications network and will pass through one of two major communication hub sites in NJ. These communication hubs will be part of the RECO core communications infrastructure. This infrastructure will be created using Fiber Optic and Microwave technology where possible. In the event private fiber or microwave is not practical, leased telephone company services can be utilized.

Substation Communications Enhancements

The South Mahwah and Darlington substations will be upgraded to become high-capacity data access points, or major communication hub sites. Smart Grid data for control and monitoring will have the capability of routing through either substation hub site to the ECC. This diverse design will guarantee communications to and from critical field devices in the event of an equipment outage.

The requirements to support this upgrade may require additional housing space. Funding to support a small communications building and one radio equipment building has been included in this proposal. The substation hub facilities will be equipped with fiber-optic

equipment for Wide Area Networking ("WAN"), Local Area Networking ("LAN") and channel bank equipment.

Each hub substation will have diverse WAN access in and out of its facility through a ring topology. In designing the ring, RECO will utilize two other NJ substations. The two selected (non-hub) substations will also require WAN equipment, however may not require LAN or channel bank equipment.

Phased Implementation Plan

The implementation of this communications plan requires a phased-in approach as detailed below:

Phase I

- Run radio coverage models for frequency propagation between master and remote radio locations.
- Secure radio frequencies as identified and perform field testing.
- Finalize acquisition of new radio communication facilities.

Phase II

- Core network construction between four major NJ substations.
- Construct WAN facilities.
- Establish two diverse communication hubs between RECO facilities and the ECC.
- Upgrade facilities to support secure LAN communications at South Mahwah and Darlington Substations.

Phase III

- Construct the radio network and establish communications to remote devices.
- Establish and test end to end communications for all field devices.

Timeframes for implementation of communications improvements are shown in Exhibit #4. A communications infrastructure plan is provided in Exhibit #5.

D. Cyber Security

The RECO Energy Management System ("EMS") support staff completed efforts to be fully NERC - Critical Infrastructure Protection compliant by December 31, 2009. Processes and procedures are in place for the secure operation of RECO's critical cyber assets. Equipment has been installed, and additional equipment is being added, for the protection of the EMS processes and data. Patch management, malware protection, backup and recovery processes have been addressed with the installation of this equipment and software. ORU not only has to protect the integrity and security of its own processes and data, it must also protect the data that it sends and receives from the New York Independent System Operator ("NYISO") and the Pennsylvania, Jersey and Maryland Interconnection ("PJM").

ORU currently protects its EMS with processes, firewalls and strong password authentication. To protect the integrity of the Bulk Electric System ("BES"), the EMS is manually patched with vendor reviewed and approved patches.

All Distribution Automation and Smart Grid equipment to be connected to the EMS will have to meet or exceed the cyber security protection, processes and procedures utilized for the BES. RECO is working with vendors to develop the interfaces for the systems that will be monitoring and controlling both the bulk and distribution power systems. These interfaces will utilize standard protocols specifically designed for communicating data between remote field devices and SCADA systems and for communications between SCADA systems. For example, the Company's communication system utilizes several layers of security. Each device in the field communicates through a RTU which encrypts the data using the 128 or 256 bit Advanced Encryption Standard ("AES"). This data stays encrypted through the entire communications system back to the RTU collector in the ECC, where is it then decrypted and sent to the energy management system. The RTUs utilize time-based authentication to verify that the data is current and unique. Should an RTU see the same data twice (with the same time stamp), it will discard this data packet. The RTUs also utilize signature-based authentication where the source has a unique signature. If the data does not have the correct signature, the data will be discarded. There are also two types of password protection for the system. Each mapping point is password protected, which imposes another layer of protection from operating a control point. Finally, the network itself

if password protected; therefore, an RTU that was just placed on the network would still not communicate with the network, if it hasn't been given the proper password to talk with other RTUs on the network.

RECO is also presently changing the way data routes through the communications system from serial to IP based. Using IP will provide better redundancy with our system and added flexibility. As a result of using IP, the Company will be designing the new hardware to have the proper routers and firewalls needed to protect the entire system. The Company is presently evaluating the best method of implementing IP based routing.

E. FERC-NARUC Smart Grid Funding Criteria Rationale

RECO's Smart Grid Proposal meets the Smart Grid criteria contained in the Energy Independence and Security Act of 2007, the FERC-NARUC Smart Grid funding criteria, and the FERC draft policy statement on Smart Grid, including:

- o Development and incorporation of demand response, demand-side resources and EE (EISA, Section 1301(4))
- o Smart technologies for metering, communications of grid operations and status, and distribution automation (EISA, Section 1301(5))
- o Smart appliances and consumer devices (EISA, Section 1301(6))
- o Advanced electricity storage and peak shaving (including plug in electric and hybrid electric vehicles, and thermal storage air conditioning) (EISA, Section 1301(7))
- o Provision to consumers of timely information and control options (EISA, Section 1301(8))
- o Development of standards for communication and interoperability of appliances and equipment connected to grid (EISA, Section 1301(9))
- o Lowering barriers to adoption of smart grid technologies, practices and services (EISA, Section 1301(10))
- o Common semantic framework that "allow different systems to talk to one another" – Interoperability (FERC Smart Grid Policy, Para 32, 33)
- o Enables demand response, particularly dispatchable DR to address loss of resources or over-generation (FERC Smart Grid Policy, Para 37)
- o Plans for interoperability, upgradability, adheres to open standards (FERC-NARUC Smart Grid Funding Criteria, Para 1(a))

o Addresses cyber-security and adheres to FERC-approved reliability criteria (FERC-NARUC Smart Grid Funding Criteria, Para 1(b))

o Minimizes stranded cost risk by providing for upgradability (FERC-NARUC Smart Grid Funding Criteria, Para 1(c))

o Will maintain grid reliability (FERC-NARUC Smart Grid Funding Criteria, Para 1(d))

o Addresses data integrity (FERC-NARUC Smart Grid Funding Criteria, Para 1(f))

o Addresses user authentication (FERC-NARUC Smart Grid Funding Criteria, Para 1(g)

o Protects against unauthorized use and logs modifications or changes made (FERC-NARUC Smart Grid Funding Criteria, Para 1(h))

o Accounts for the potential impact on the grid of unauthorized use (FERC-NARUC Smart Grid Funding Criteria, Para 1(j))

o Specific benefits - for customers and the grid - are contemplated (FERC-NARUC Smart Grid Funding Criteria, Para 2(g))

o Already completed projects provide additional learning (FERC-NARUC Smart Grid Funding Criteria, Para 2(h))

o Physical and cyber-security is tested (FERC-NARUC Smart Grid Funding Criteria, Para 3(d))

o Priority given to projects with open architecture (which can allow for interoperability) (FERC-NARUC Smart Grid Funding Criteria, Para 3(f))

o Benefits related to improvement/expansion in efficiency, conservation, price responsive demand or demand response are documented (FERC-NARUC Smart Grid Funding Criteria, Para 6(b,c))

o Reduction in energy demand or consumption will be documented (FERC-NARUC Smart Grid Funding Criteria, Para 6(d))

o Reduction in transmission congestion or loop flow (FERC-NARUC Smart Grid Funding Criteria, Para 6(f))

o Documentation on how project helps integrate energy storage devices (FERC-NARUC Smart Grid Funding Criteria, Para 6(h))

o Documentation on how project encourages new business models, market innovation, third party capital participation (FERC-NARUC Smart Grid Funding Criteria, Para 6(i))

o Documentation is shared with public while protecting customer privacy (FERC-NARUC Smart Grid Funding Criteria, Para 6(j))

o Documentation of types of customer-specific data collected (FERC-NARUC Smart Grid Funding Criteria, Para 7(a))

o Plan for protecting customer privacy (FERC-NARUC Smart Grid Funding Criteria, Para 7(b))

o Data can be provided to DOE in summary format while still demonstrating achievement of goals (FERC-NARUC Smart Grid Funding Criteria, Para 7(c))

o Documented process for securing customer permission to collect private data (FERC-NARUC Smart Grid Funding Criteria, Para 7(d))

o Plan on surveying customer receptivity to the project (FERC-NARUC Smart Grid Funding Criteria, Para 8(a))

III. PILOT PROJECT COST SUMMARY

Table 1 below contains the estimated costs for the three-year pilot project:

Table 1 – Pilot Project Cost Summary

SYSTEM INFRASTRUCTURE	COST
Distribution System	$6,617,200
Substation System	$10,725,800
Communications System	$2,029,600
Base Electric Delivery System Smart Grid Total	**$19,372,600**

A more detailed breakout of the pilot project costs are provided in Exhibit #6. The pilot project costs include certain system development and a Smart Grid framework that would not have to be duplicated for an expansion of the program. It is anticipated that distribution system expansion costs will be approximately $300,000 per circuit loop. The substation and communications infrastructure expansion costs are over and above the distribution expansion costs, and will be dependent on the location of the expansion.

Table 1 above contains predominantly capital costs, including the human resources labor provided in Section V below. There will be some ongoing O&M costs required to support the program, predominantly in human resources and systems communications.

IV. PROJECT BENEFITS

A. Engineering and Operating Benefits

System Reliability Improvements

Smart Grid will improve distribution system reliability; in particular, the measured reliability goals of frequency of customers interrupted ("SAIFI") and outage duration ("SAIDI"). During large weather-related outages that affect large portions of the service territory, the mainline backbone of the electric distribution system can be subjected to multiple outages caused by rain, wind, hail, ice, and other events that can disrupt service to a large number of customers. The system will allow for the quick identification and isolation of mainline faults to be reduced to approximately 250 customers affected, thereby improving circuit SAIFI. This will also allow for quicker identification of the location of outage causes, resulting in improved circuit SAIDI. One of the other measured indices, CAIDI, is expected to statistically deteriorate as SAIFI and overall customer reliability improves. This pilot project will provide benchmark information regarding the impact of Smart Grid on traditional reliability measurement. Within the substation, equipment and communications infrastructure improvements will increase RECO's data acquisition capability and improve the Company's remote diagnostic capability. The improved communications will be coupled with advanced substation software to allow for better data processing and management, both locally and remotely. The upgrades will allow interrogation of the devices in the station following an incident to allow for analysis prior to dispatching crews. Access to the station security camera system will also allow remote visual inspection.

Transformer Load Management

As more specific customer usage information is obtained through improved data collection and analysis tools that RECO is developing through its Smart Grid efforts, the Company will be able to more accurately predict transformer and equipment loading on a real time basis. This would result in more efficient management of transformer and equipment capacities as well as identifying potential overloads prior to occurrence. Replacing transformers or equipment in a non-emergency fashion is much less costly, and avoids an unscheduled customer interruption.

Distribution System Planning

Improved customer usage information and reactive power management can have significant benefits to overall system planning. Replacing the traditional assumptions made by planners with more specific and accurate information would result in maximizing the full capabilities of field equipment and minimizing system losses. Both have beneficial short term and long-term financial impacts. The Company has also started to develop and incorporate, within its planning process, an evaluation of the potential effects and impacts of Distributed Resources on the electric delivery system.

Voltage and VAR Monitoring

Voltage and reactive power monitoring and control will allow for improved dynamic voltage regulation on the distribution system to minimize losses and ensure that voltage remains within regulated requirements. Strategically placed sensors especially at the end-of-line, or on the load side of remote voltage regulation equipment, can be used to monitor the system and provide indication of the need for corrective actions prior to customer calls and complaints.

B. Long-Term and Future System Benefits

RECO has been working towards establishing the framework for the development and implementation of a fully integrated system model ("ISM") that will enable asset management across numerous system assets and variables as the system continues to become substantially more complex. RECO envisions that such a system will allow for advanced analytical and economic decision-making and control to be made and executed in real time on the electric delivery system. The Company has already linked many of its core, mission critical systems, including its work management system, customer information system, geographic information system, outage management system and distribution engineering workstation system. The expansion of Smart Grid and the linking of real time information and control with the existing integrated core systems will take the Company's vision of ISM to the next level. A future, even more robust state, where a highly advanced analytical and decision-making model exists as an overarching and expandable layer over all of these systems, defines RECO's vision of what Smart Grid can and eventually will be.

An ISM is essential for efficient and effective control of the distribution system. It is the mechanism that makes the pilot scalable, enabling deployment across the entire distribution system. Having an ISM with real time inputs provides many other benefits that can be realized in the longer term. For example, the ISM enables development of a storm damage prediction system that would provide up front prediction of the scope of a storm allowing for resource optimization at the onset. This can greatly improve the efficiency of storm operations, significantly reducing restoration time. It can be realized through the ISM when coupled with real time weather data and fast analytical capabilities, as provided by the DEW software.

Weather forecasts and storm track predictions on a micro scale are improving in accuracy and are becoming available in real time. When overlaid onto the ISM, the storm track can identify the geographical region with granularity down to specific areas within a township that will be affected. Couple the storm track with historic damage analysis metrics from actual storm damage data and an estimation of the scope of the damage expected can be prepared with a high degree of confidence. This allows resources to be optimized and stationed in the proper locations before the storm arrives. Once the storm arrives the software can continuously analyze real time outage information supplied from OMS and predict the completion time based on the manpower resources that are currently working

and available. This allows management to optimize resources during the event, see progress in real time and identify the milestones that signify optimal time to wind down and begin releasing resources.

The ISM not only allows circuit efficiency to be easily evaluated and optimized on a granular level (circuit by circuit), but also on a macro scale (across the entire system). The ISM would allow the software to continuously monitor and archive circuit efficiencies, loss factors and voltage dependency factors calculated across the circuit, based on the real time inputs. This information would then be used by an application that would prioritize circuits by efficiency and identify the most cost effective means of improvement. Once the improvement is implemented in the field the actual results experienced can be easily compared against the baseline to verify the extent of the improvement.

Another significant level of long-term efficiency improvement that an ISM with real time inputs can provide is the development of dynamic reconfiguration to optimize the loading between substation banks and across distribution circuits. This is the ultimate in efficiency improvement because it continuously optimizes efficiency and is based on calculated values derived from real time inputs across the system. Ideally, the open tie point between circuits would be dynamically controlled by the computer and changed as necessary. New settings for automatic protection devices would automatically be calculated and uploaded to the devices based on the new configuration.

In addition to the reliability benefits outlined for the pilot program, the next steps in reliability enhancement would be to couple the ISM to a reliability application which could analyze the system to determine what the worst contingency would be, and have a switching solution at the ready in the event that contingency should be realized. This is especially useful for operators when the system is already in first contingency; a system such as this could prevent equipment damage due to overloading and will reduce restoration time should a second contingency be experienced.

The ISM will allow for fault locations to be determined with a high degree of accuracy from analysis of waveform data available from electronic field equipment such as reclosers and other sensors. Not only will this help with restoration on permanent faults, it will also

locate with a high degree of accuracy all locations on the circuit that could have caused a momentary interruption. This allows for proactive remediation resulting in outage prevention.

The benefit of an ISM transcends efficiency and reliability and can be expanded to the area of asset management. Equipment monitoring, coupled with some basic analytical tasks, can help to minimized maintenance expenses by targeting expenditures towards the equipment that requires the maintenance. For example, an algorithm that determines deterioration of a switch's load interrupting mechanism, based on the real time load it interrupts each time it has operated, can be developed and used to determine when the switch requires maintenance. Another application would be to monitor VAR reduction across all three phases when a capacitor bank turns on to determine if the VAR reduction expected was obtained. This can proactively identify problems with specific capacitor banks without having to install expensive monitoring and communications equipment, allowing maintenance to be targeted towards only those capacitors that require it.

Another use for ISM is as a training simulator. A software application can be developed that will record and save events that occur across the system. The events can then be played back in simulation mode allowing the operators to interact with the system in a training environment. This is especially useful for training new operators and for training experienced operators when a new system or protection scheme is introduced.

These are some of the more easily visualized next steps that an ISM with real time inputs can enable. Once experience has been obtained working with the model, the less visible benefits will surface and can be acted upon.

V. RESOURCE STAFFING REQUIREMENTS

The workload attendant with the implementation of a highly demanding, complicated, and technologically advanced program such as this is resource intensive, and requires full time and dedicated personnel to achieve the expected results.

The implementation of RECO's proposed five circuit and two substation pilot project and Smart Grid expansion efforts in New Jersey is of considerably larger scope than proposed prior, and will require additional dedicated resources. In order to successfully implement this effort, the Company will add fifteen new positions to provide engineering, systems development and integration, and field construction and administration for the program. The proposed new positions that are required are shown along with an abbreviated description of their responsibilities in Table 2 below:

Table 2 – Human Resource Requirements

Position	Number Required	Description of Responsibilities
Smart Grid Engineer	2	Develop operational, testing, maintenance and repair procedures, provide training to field technicians and control system operators, troubleshoot field problems, research, investigate and implement new smart grid technologies
Protection / DG Engineer	1	Determine all protection, coordination and auto-loop settings for the smart grid devices and schemes. Improve and utilize device functionality, including local data processing and oscillography. Provide engineering to integrate and interconnect distributed generation and distributed energy resources.
Substation Sys./ Equip. Engineer	1	Configuration and integration of RTU's, relays, data concentrators and other substation equipment, computer systems and diagnostics. Research, evaluate and integrate new substation smart grid technologies.
DEW Administrator	1	Develops, maintains, and supports applications related to the DEW System, including designing, coding, testing, documenting, problem solving, training, and system integration and security interface with the ECC systems.
Systems Integrator and Security Administrator	2	Integration of advanced smart grid field systems, software, hardware and databases with the SCADA system, DEW and the Company's GIS system. Knowledge and application of cyber security standards and protocols for initial integration and ongoing requirements for critical infrastructure protection.
Communications Engineer	1	Configure mapping settings to enable proper communication from all new field automation devices with SCADA. Develop plans and engineering for all communications infrastructure upgrades including fiber, microwave, radio and associated field equipment.
Technical Supervisor	1	Provide field supervision and back office support for all Field Technicians.
Field Technician	4	New field workers specifically dedicated to the commissioning, troubleshooting, repair, and maintenance of all field equipment and all new smart grid field devices.
Field Engineer	1	Provide engineering and technical guidance in the field for the Field Technician crews for the installation, commissioning, troubleshooting and maintenance of all distribution field equipment and smart grid devices
Meter Systems Specialist	1	Provide technical and field support for the daily operation and upkeep of key metering and smart grid monitoring systems and the integration and security of these systems with other corporate systems.

The Company would synergistically integrate the existing resources that it presently has dedicated to the ongoing NY Smart Grid pilot, and those that will be added for the NJ program, described above, to form a new focused Smart Grid workforce. A proposed organizational chart for this new Smart Grid Department is shown in Exhibit #7.

These resources are required to provide the engineering and field operations talent to successfully implement and administer the proposed program, and will be necessary to expand these technological advancements throughout the RECO service territory in the future.

Exhibit #1 – Geographic Area for Auto-loop Circuits 43-2-13, 43-3-13 and 43-6-13

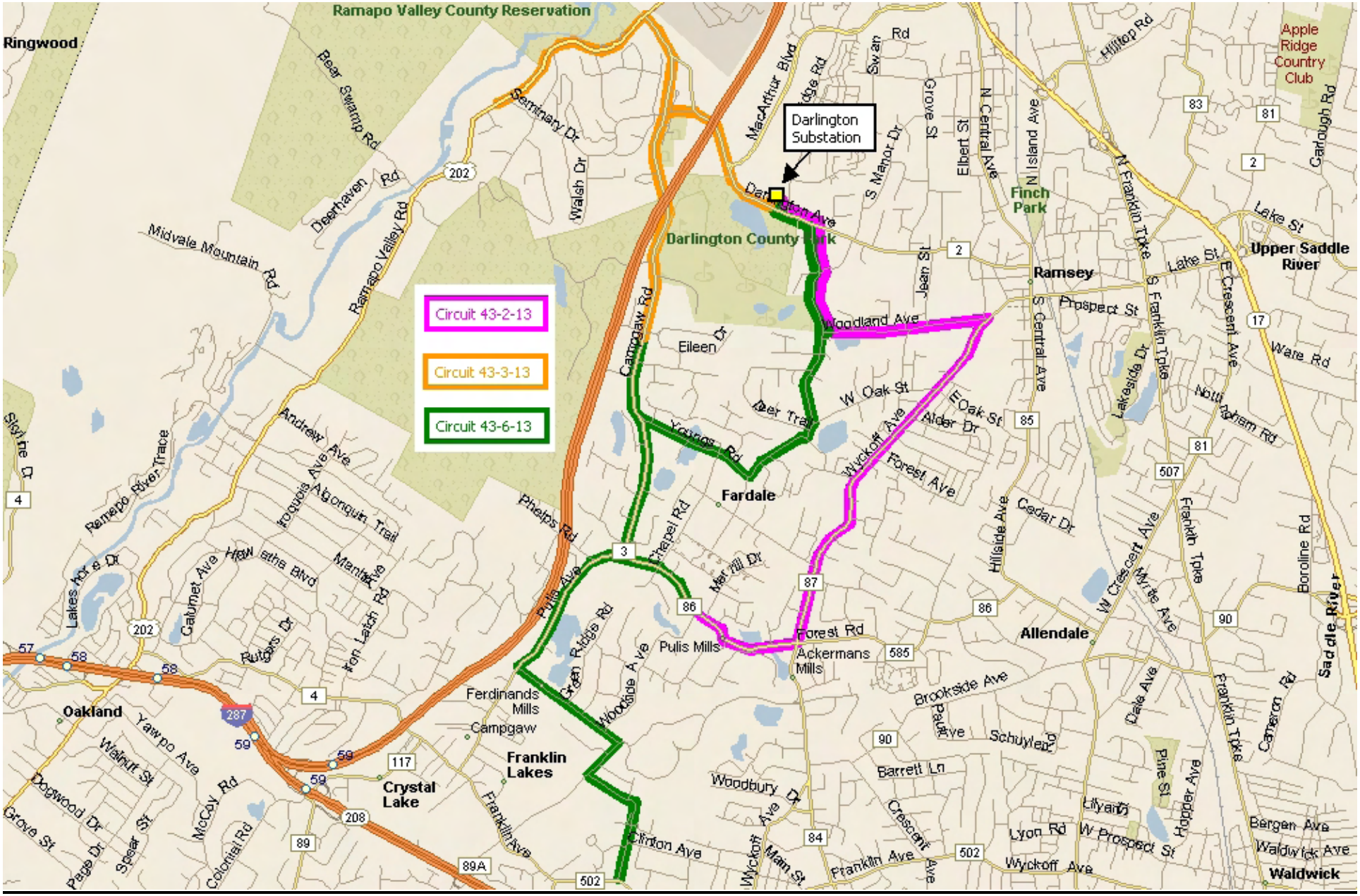


Exhibit #2 – Geographic Area for Auto-loop Circuits 43-7-13 and 58-1-13

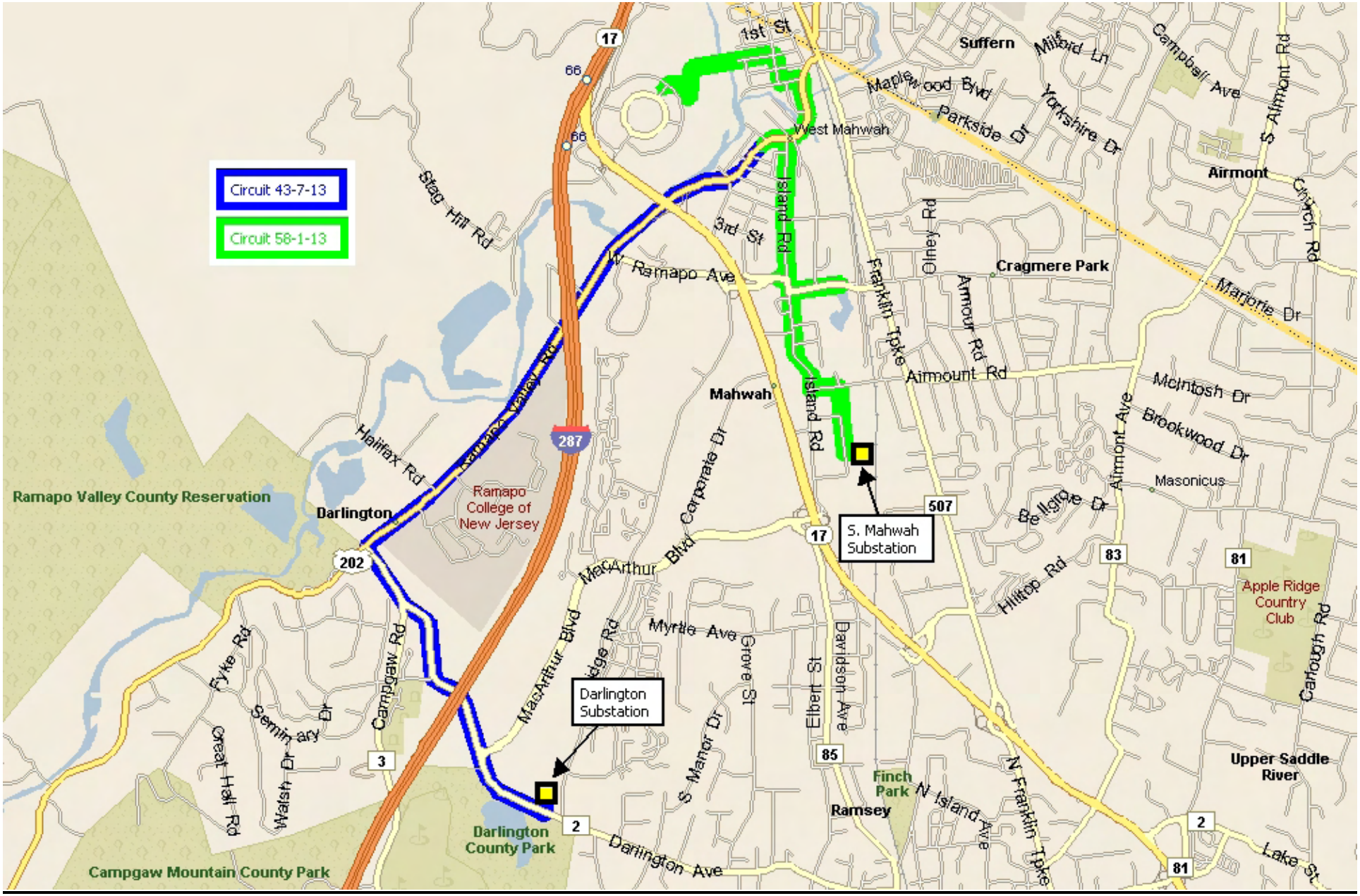
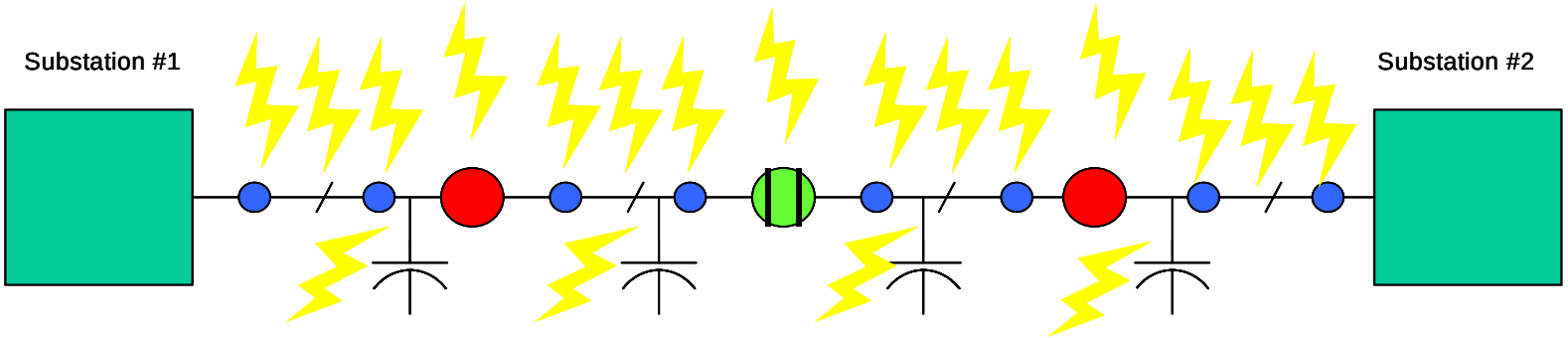


Exhibit #3 – Smart Grid Distribution System

Distribution Smart Grid – 250 Customers per Segment



Voltage and Current Sensors

In-Line Recloser

Motor Operated Air Break Switch (MOAB)

Tie Recloser

Intelligently Controlled Smart Capacitor

Communications

Diverse Communications System

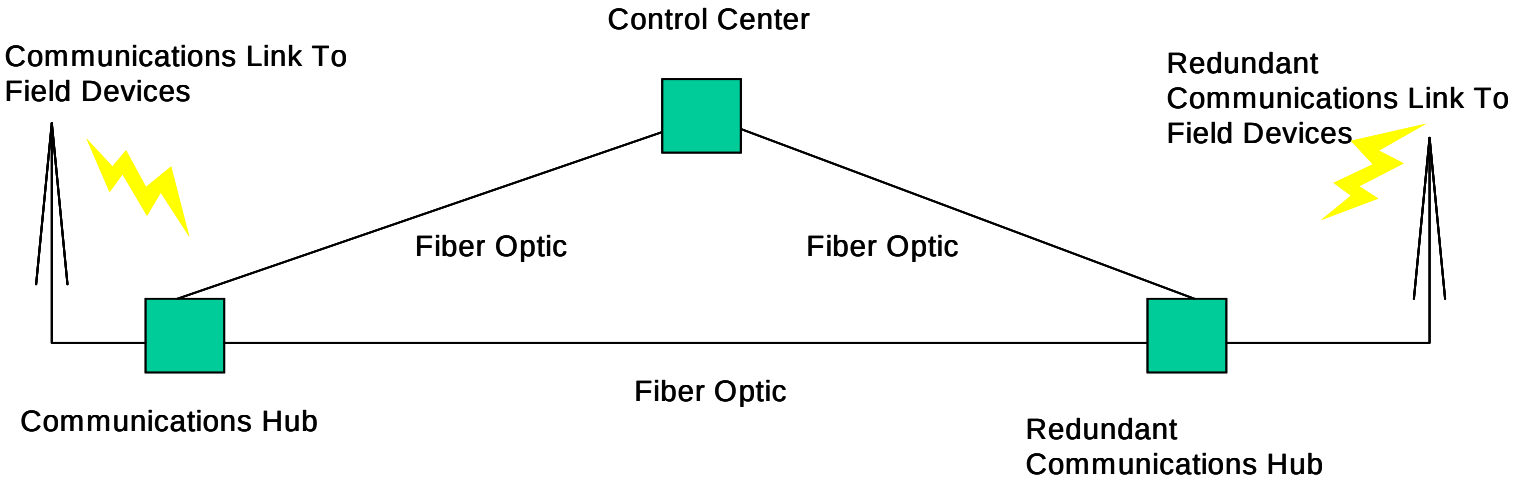


Exhibit #4 – Project Timeline

ID	Task Name	Start	Finish
1	**Distribution**	**Fri 1/1/10**	**Mon 12/31/12**
2	Identify/Procurement of Equipment	Fri 1/1/10	Fri 4/1/11
3	Construct New Circuitry/Equipment	Mon 3/1/10	Fri 3/30/12
4	DEW Support Requirements	Tue 6/1/10	Mon 12/31/12
5	Establish Communications/Control	Thu 4/1/10	Tue 10/2/12
6	Data Acquisition and System Testing	Wed 9/1/10	Fri 12/28/12
7	**Communications**	**Fri 1/1/10**	**Fri 12/28/12**
8	Radio coverage studies	Fri 1/1/10	Wed 6/30/10
9	Establishment of LAN Communications	Fri 1/1/10	Fri 10/28/11
10	Installation of Private Radio Network	Thu 7/1/10	Fri 6/29/12
11	Install Diverse Fiber Comm. Path	Wed 9/1/10	Fri 12/30/11
12	Develop Alternate Comm. Hub Site	Mon 1/3/11	Fri 9/28/12
13	System Testing	Thu 7/1/10	Fri 12/28/12
14			

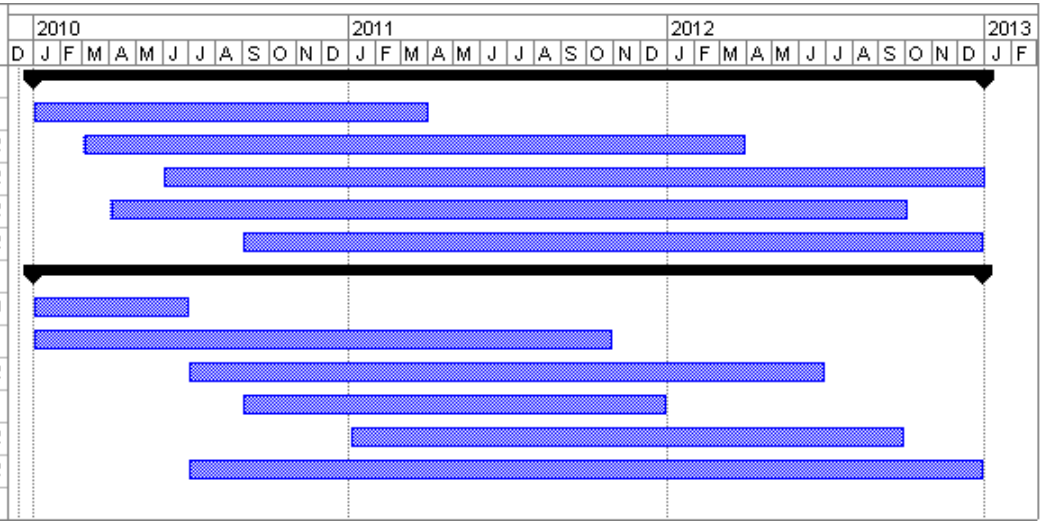
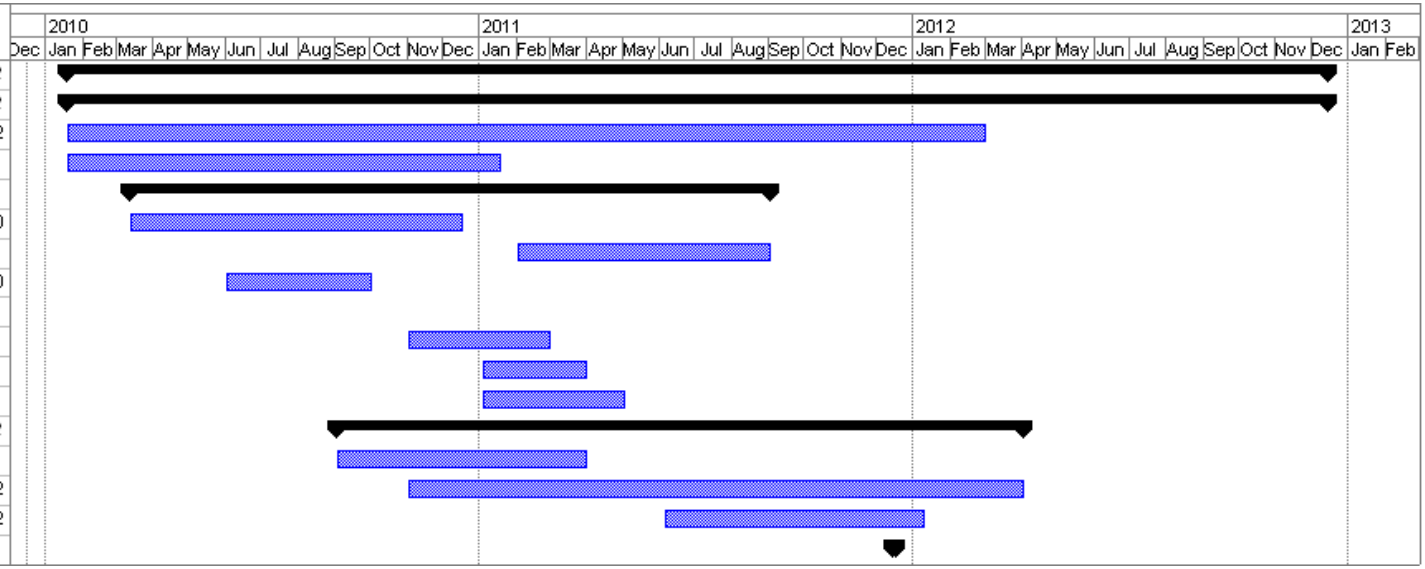


Exhibit #4 – Project Timeline (cont'd)

Task Name	Start	Finish
South Mahwah Substation	**Mon 1/18/10**	**Fri 12/14/12**
Engineering	**Mon 1/18/10**	**Fri 12/14/12**
Electrical	Mon 1/18/10	Thu 3/1/12
Civil	Mon 1/18/10	Mon 1/17/11
Equipment	**Fri 3/12/10**	**Thu 9/1/11**
Transformers	Fri 3/12/10	Fri 12/17/10
Switchgear	Tue 2/1/11	Thu 9/1/11
Ckt Switcher	Tue 6/1/10	Fri 10/1/10
SCADA upgrade	Mon 11/1/10	Mon 2/28/11
Relay Upgrade	Mon 1/3/11	Thu 3/31/11
Diagnostics	Mon 1/3/11	Mon 5/2/11
Construction	**Thu 9/2/10**	**Mon 4/2/12**
Civil	Thu 9/2/10	Thu 3/31/11
Electrical	Mon 11/1/10	Mon 4/2/12
Checkout	Mon 6/6/11	Mon 1/9/12
Energization	**Thu 12/15/11**	**Fri 12/16/11**



Task Name	Start	Finish
Darlington Substation	**Mon 5/31/10**	**Fri 12/14/12**
Engineering	**Mon 5/31/10**	**Fri 12/14/12**
Electrical/ Smart Gric	Mon 5/31/10	Fri 12/14/12
Equipment	**Mon 11/1/10**	**Fri 3/30/12**
SCADA/Server	Wed 12/1/10	Thu 3/31/11
Relay	Thu 12/1/11	Fri 3/30/12
Smart Annunciator	Mon 11/1/10	Thu 3/31/11
Equipment monitors	Mon 11/14/11	Fri 1/13/12
Construction	**Mon 4/11/11**	**Mon 12/3/12**
SCADA/ Server	Mon 4/11/11	Thu 8/4/11
Relay/ Equipment	Mon 4/16/12	Mon 12/3/12

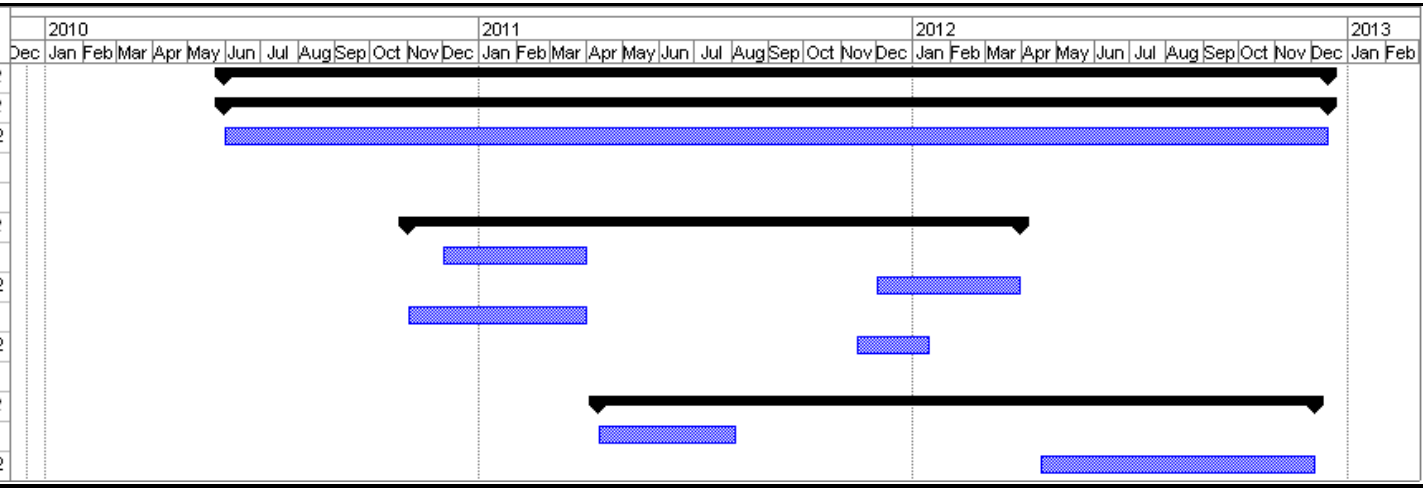


Exhibit #5 – Smart Grid Communications Infrastructure Plan

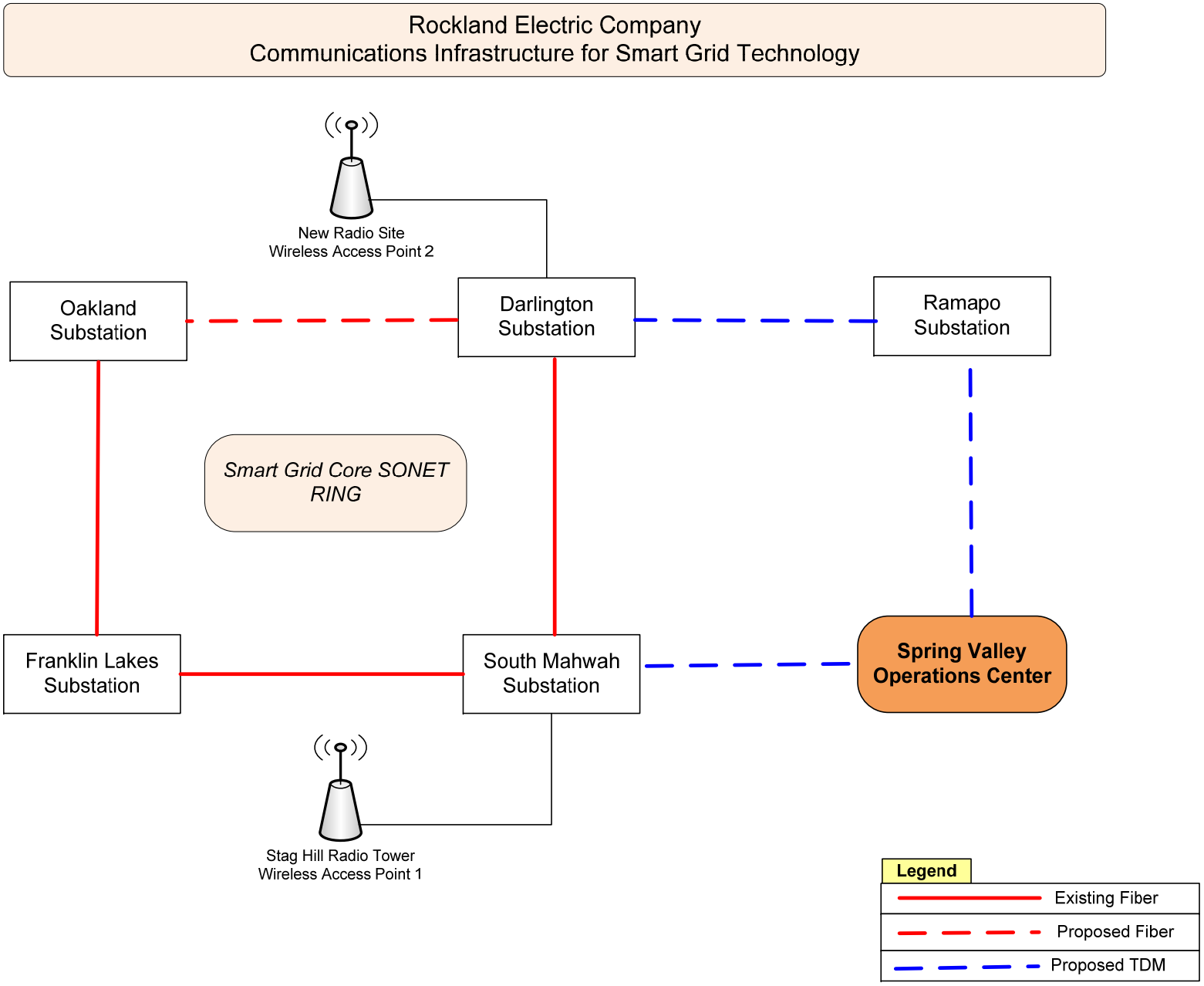


Exhibit #6 – NJ Smart Grid Pilot Project Cost Breakdown

RECO NJ SMART GRID THREE-YEAR PILOT PROJECT PROPOSAL

DISTRIBUTION SYSTEM COSTS

Equipment	Cost		Year 1	Year 2	Year 3
Distribution Circuit Modifications	$79,800		$79,800		
Automation Equipment	$1,182,874		$652,365	$441,911	$88,598
Communications Equipment	$288,385		$116,855	$121,080	$50,450
Subtotal Equipment	$1,551,059		$849,020	$562,991	$139,048
Total Labor, Fringe and OH's	$5,066,091		$1,145,811	$1,767,971	$2,152,309
Total Distribution Costs	**$6,617,150**		**$1,994,831**	**$2,330,962**	**$2,291,357**

SUBSTATION SYSTEM COSTS

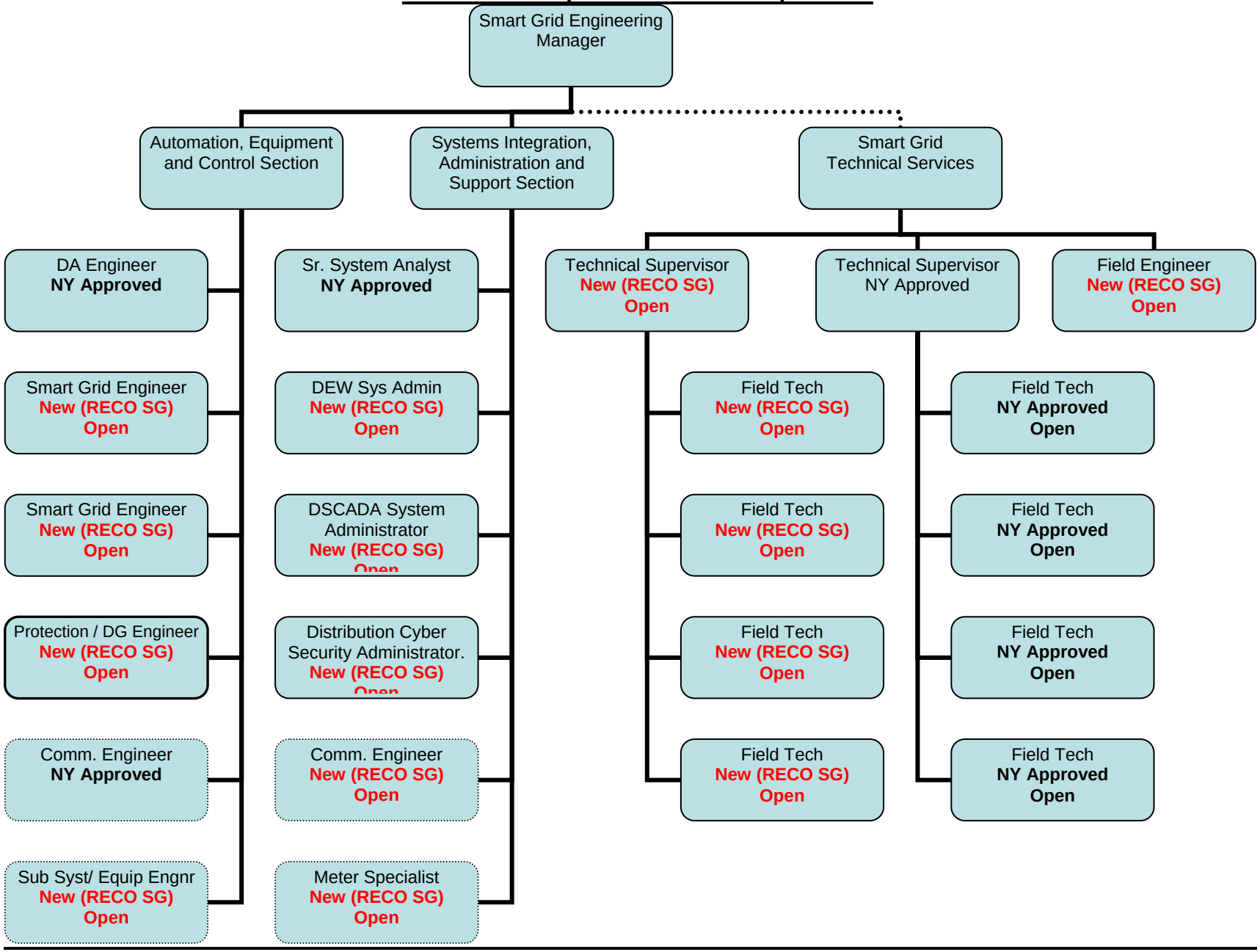
Darlington and South Mahwah Substation Upgrades

Equipment	Cost		Year 1	Year 2	Year 3
Transformers	$1,800,000		$1,800,000	$0	$0
Switchgear	$1,000,000		$0	$1,000,000	$0
Other Equipment / Steel	$326,400		$111,400	$215,000	$0
Smart Grid Equipment / Diagnostics	$332,000		$55,000	$277,000	$0
Subtotal Equipment	$3,458,400		$1,966,400	$1,492,000	$0
Total Labor, Fringe and OH's	$4,438,140		$1,630,260	$2,438,420	$369,460
Other Associated Projects					
138kV Underground Intrastation Tie	$813,773		$508,931	$304,842	$0
Underground Distribution Circuit Exits	$1,715,312		$1,006,907	$708,405	$0
Overhead Distribution Circuit Exits	$300,192		$300,192	$0	$0
Total Other Project Costs	$2,829,277	#	$1,816,030	$1,013,247	$0
Total Substation System Costs	**$10,725,817**	#	**$5,412,690**	**$4,943,667**	**$369,460**

COMMUNICATIONS SYSTEM COSTS

Equipment and Field Labor	Cost		Year 1	Year 2	Year 3
Fiber & Microwave Infrastructure	$1,520,000		$0	$770,000	$750,000
Communications and Ancillary Equipment	$75,516		$4,050	$25,466	$46,000
Diverse Hub Site and Equipment	$318,887		$224,487	$94,400	$0
Subtotal Equip & Field Work	$1,914,403		$228,537	$889,866	$796,000
Carrier Lease Costs	$115,250		$23,050	$46,100	$46,100
Total Communications Cost	**$2,029,653**		**$251,587**	**$935,966**	**$842,100**
Total Electric Delivery System Costs	**$19,372,620**	#	**$7,659,108**	**$8,210,595**	**$3,502,917**

Exhibit #7 – Proposed Smart Grid Department



ROCKLAND ELECTRIC COMPANY
SMART GRID PILOT PROPOSAL - Docket No. ER09060459
REVENUE REQUIREMENT SUMMARY

	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11
CWIP												
Beginning of Period	0	373,742	409,957	450,472	526,362	564,902	667,142	828,805	1,365,874	1,263,039	1,486,903	1,823,405
Activity												
Capex	373,742	73,842	79,392	113,517	99,417	144,867	212,290	599,802	316,302	339,151	410,938	1,009,308
Closings to Plant	0	(37,627)	(38,877)	(37,627)	(60,877)	(42,627)	(50,627)	(62,733)	(419,137)	(115,287)	(74,436)	(76,373)
End of Period	373,742	409,957	450,472	526,362	564,902	667,142	828,805	1,365,874	1,263,039	1,486,903	1,823,405	2,756,340
Average	186,871	391,850	430,215	488,417	545,632	616,022	747,974	1,097,340	1,314,457	1,374,971	1,655,154	2,289,873
Plant in Service												
Beginning of Period	0	0	37,627	76,504	114,131	175,008	217,635	268,262	330,995	750,132	865,419	939,855
Activity	0	37,627	38,877	37,627	60,877	42,627	50,627	62,733	419,137	115,287	74,436	76,373
End of Period	0	37,627	76,504	114,131	175,008	217,635	268,262	330,995	750,132	865,419	939,855	1,016,228
Average	0	18,814	57,066	95,318	144,570	196,322	242,949	299,629	540,564	807,776	902,637	978,042
Tax Depreciation												
Beginning of Period	0	0	118	363	726	1,346	2,125	3,130	4,462	7,142	10,283	13,691
Activity	0	118	246	363	620	779	1,005	1,332	2,680	3,141	3,408	3,690
End of Period	0	118	363	726	1,346	2,125	3,130	4,462	7,142	10,283	13,691	17,381
Average	0	59	240	545	1,036	1,736	2,628	3,796	5,802	8,713	11,987	15,536
Book Depreciation												
Beginning of Period	0	0	105	321	641	1,166	1,823	2,657	3,735	5,998	8,604	11,435
Activity	0	105	216	321	525	657	834	1,078	2,263	2,606	2,831	3,066
End of Period	0	105	321	641	1,166	1,823	2,657	3,735	5,998	8,604	11,435	14,501
Average	0	52	213	481	904	1,495	2,240	3,196	4,867	7,301	10,020	12,968
Deferred Tax Balance												
Beginning of Period	0	0	5	18	35	74	124	194	298	470	690	927
Activity	0	5	12	18	39	50	70	104	171	220	237	256
End of Period	0	5	18	35	74	124	194	298	470	690	927	1,183
Average	0	3	11	26	55	99	159	246	384	580	808	1,055
Net Rate Base - Average	0	18,759	56,842	94,810	143,611	194,728	240,549	296,186	535,312	799,894	891,809	964,019

ROCKLAND ELECTRIC COMPANY
SMART GRID PILOT PROPOSAL - Docket No. ER09060459
REVENUE REQUIREMENT SUMMARY

	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11
Expenses												
Book Depreciation	0	105	216	321	525	657	834	1,078	2,263	2,606	2,831	3,066
O&M Expenses	0	0	300	1,125	2,625	3,375	6,404	10,125	9,799	8,250	7,500	7,500
Total Expenses	0	105	516	1,446	3,150	4,032	7,238	11,203	12,062	10,856	10,331	10,566
Revenue Requirement												
Net Rate Base plus CWIP	186,871	410,608	487,056	583,227	689,243	810,750	988,523	1,393,525	1,849,769	2,174,865	2,546,963	3,253,891
ROR	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Earnings Base	1,708	3,754	4,452	5,332	6,301	7,412	9,037	12,739	16,910	19,882	23,283	29,746
Earnings - Expense	0	105	516	1,446	3,150	4,032	7,238	11,203	12,062	10,856	10,331	10,566
Total Earnings Effect	1,708	3,858	4,968	6,777	9,451	11,444	16,275	23,942	28,972	30,738	33,614	40,312
Uncollectibles Factor	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016
Revenue requirement	1,711	3,864	4,976	6,788	9,466	11,462	16,301	23,980	29,018	30,787	33,668	40,376

ROCKLAND ELECTRIC COMPANY
SMART GRID PILOT PROPOSAL - Docket No. ER09060459
REVENUE REQUIREMENT SUMMARY

	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12
CWIP												
Beginning of Period	2,756,340	3,191,826	3,419,201	4,133,320	4,307,094	4,474,916	4,675,411	4,781,994	4,763,181	3,588,728	3,710,484	3,947,646
Activity												
Capex	635,576	509,816	784,100	319,639	259,916	264,826	273,064	156,406	160,128	201,589	353,706	186,534
Closings to Plant	(200,090)	(282,441)	(69,981)	(145,865)	(92,094)	(64,331)	(166,481)	(175,219)	(1,334,581)	(79,833)	(116,544)	(262,481)
End of Period	3,191,826	3,419,201	4,133,320	4,307,094	4,474,916	4,675,411	4,781,994	4,763,181	3,588,728	3,710,484	3,947,646	3,871,699
Average	2,974,083	3,305,514	3,776,261	4,220,207	4,391,005	4,575,164	4,728,703	4,772,588	4,175,955	3,649,606	3,829,065	3,909,673
Plant in Service												
Beginning of Period	1,016,228	1,216,318	1,498,759	1,568,740	1,714,605	1,806,699	1,871,030	2,037,511	2,212,730	3,547,311	3,627,144	3,743,688
Activity	200,090	282,441	69,981	145,865	92,094	64,331	166,481	175,219	1,334,581	79,833	116,544	262,481
End of Period	1,216,318	1,498,759	1,568,740	1,714,605	1,806,699	1,871,030	2,037,511	2,212,730	3,547,311	3,627,144	3,743,688	4,006,169
Average	1,116,273	1,357,539	1,533,750	1,641,673	1,760,652	1,838,865	1,954,271	2,125,121	2,880,021	3,587,228	3,685,416	3,874,929
Tax Depreciation												
Beginning of Period	17,381	21,837	27,305	33,144	39,815	47,147	54,827	63,759	74,032	90,143	106,929	124,378
Activity	4,456	5,468	5,838	6,671	7,332	7,680	8,932	10,273	16,111	16,786	17,449	19,342
End of Period	21,837	27,305	33,144	39,815	47,147	54,827	63,759	74,032	90,143	106,929	124,378	143,720
Average	19,609	24,571	30,224	36,479	43,481	50,987	59,293	68,896	82,088	98,536	115,654	134,049
Book Depreciation												
Beginning of Period	14,501	18,081	22,457	27,046	32,182	37,654	43,308	49,710	56,874	66,213	75,784	85,710
Activity	3,580	4,376	4,588	5,137	5,472	5,653	6,402	7,164	9,339	9,570	9,926	11,092
End of Period	18,081	22,457	27,046	32,182	37,654	43,308	49,710	56,874	66,213	75,784	85,710	96,802
Average	16,291	20,269	24,751	29,614	34,918	40,481	46,509	53,292	61,544	70,998	80,747	91,256
Deferred Tax Balance												
Beginning of Period	1,183	1,543	1,992	2,505	3,135	3,899	4,732	5,771	7,048	9,831	12,795	15,885
Activity	360	449	513	630	764	833	1,039	1,277	2,782	2,964	3,090	3,389
End of Period	1,543	1,992	2,505	3,135	3,899	4,732	5,771	7,048	9,831	12,795	15,885	19,274
Average	1,363	1,767	2,248	2,820	3,517	4,316	5,252	6,410	8,440	11,313	14,340	17,579
Net Rate Base - Average	1,098,619	1,335,502	1,506,750	1,609,238	1,722,216	1,794,068	1,902,510	2,065,419	2,810,037	3,504,917	3,590,330	3,766,093

ROCKLAND ELECTRIC COMPANY
SMART GRID PILOT PROPOSAL - Docket No. ER09060459
REVENUE REQUIREMENT SUMMARY

	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12
Expenses												
Book Depreciation	3,580	4,376	4,588	5,137	5,472	5,653	6,402	7,164	9,339	9,570	9,926	11,092
O&M Expenses	0	0	0	0	0	0	0	0	0	0	0	0
Total Expenses	3,580	4,376	4,588	5,137	5,472	5,653	6,402	7,164	9,339	9,570	9,926	11,092
Revenue Requirement												
Net Rate Base plus CWIP	4,072,702	4,641,015	5,283,010	5,829,445	6,113,221	6,369,231	6,631,212	6,838,006	6,985,992	7,154,523	7,419,395	7,675,766
ROR	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Earnings Base	37,231	42,426	48,295	53,290	55,884	58,225	60,620	62,510	63,863	65,403	67,825	70,168
Earnings - Expense	3,580	4,376	4,588	5,137	5,472	5,653	6,402	7,164	9,339	9,570	9,926	11,092
Total Earnings Effect	40,811	46,802	52,883	58,427	61,356	63,878	67,022	69,674	73,202	74,974	77,751	81,261
Uncollectibles Factor	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016
Revenue requirement	40,877	46,877	52,968	58,521	61,455	63,980	67,129	69,786	73,319	75,094	77,875	81,391

ROCKLAND ELECTRIC COMPANY
SMART GRID PILOT PROPOSAL - Docket No. ER09060459
REVENUE REQUIREMENT SUMMARY

	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13
CWIP												
Beginning of Period	3,871,699	3,823,453	3,829,155	3,842,120	218,934	220,740	150,945	154,963	230,379	319,810	181,878	187,820
Activity												
Capex	154,903	136,400	112,100	216,039	200,090	114,090	102,153	168,614	249,090	102,203	99,140	96,640
Closings to Plant	(203,149)	(130,698)	(99,135)	(3,839,225)	(198,284)	(183,885)	(98,135)	(93,198)	(159,659)	(240,135)	(93,198)	(90,135)
End of Period	3,823,453	3,829,155	3,842,120	218,934	220,740	150,945	154,963	230,379	319,810	181,878	187,820	194,325
Average	3,847,576	3,826,304	3,835,638	2,030,527	219,837	185,843	152,954	192,671	275,095	250,844	184,849	191,073
Plant in Service												
Beginning of Period	4,006,169	4,209,318	4,340,016	4,439,151	8,278,376	8,476,660	8,660,545	8,758,680	8,851,878	9,011,537	9,251,672	9,344,870
Activity	203,149	130,698	99,135	3,839,225	198,284	183,885	98,135	93,198	159,659	240,135	93,198	90,135
End of Period	4,209,318	4,340,016	4,439,151	8,278,376	8,476,660	8,660,545	8,758,680	8,851,878	9,011,537	9,251,672	9,344,870	9,435,005
Average	4,107,744	4,274,667	4,389,584	6,358,764	8,377,518	8,568,603	8,709,613	8,805,279	8,931,708	9,131,605	9,298,271	9,389,938
Tax Depreciation												
Beginning of Period	143,720	164,381	186,482	209,150	244,420	281,164	319,133	358,269	398,506	443,249	489,671	536,736
Activity	20,662	22,101	22,668	35,270	36,744	37,969	39,136	40,237	44,743	46,422	47,064	48,648
End of Period	164,381	186,482	209,150	244,420	281,164	319,133	358,269	398,506	443,249	489,671	536,736	585,384
Average	154,051	175,432	197,816	226,785	262,792	300,148	338,701	378,387	420,877	466,460	513,204	561,060
Book Depreciation												
Beginning of Period	96,802	108,373	120,423	132,775	152,323	172,710	193,870	215,328	237,056	259,229	282,489	306,019
Activity	11,571	12,049	12,352	19,548	20,387	21,161	21,458	21,728	22,174	23,260	23,530	23,783
End of Period	108,373	120,423	132,775	152,323	172,710	193,870	215,328	237,056	259,229	282,489	306,019	329,802
Average	102,588	114,398	126,599	142,549	162,516	183,290	204,599	226,192	248,143	270,859	294,254	317,911
Deferred Tax Balance												
Beginning of Period	19,274	23,008	27,137	31,375	37,833	44,553	51,458	58,720	66,324	75,595	85,110	94,778
Activity	3,734	4,129	4,238	6,458	6,719	6,905	7,262	7,604	9,272	9,515	9,668	10,215
End of Period	23,008	27,137	31,375	37,833	44,553	51,458	58,720	66,324	75,595	85,110	94,778	104,993
Average	21,141	25,073	29,256	34,604	41,193	48,005	55,089	62,522	70,959	80,353	89,944	99,886
Net Rate Base - Average	3,984,015	4,135,196	4,233,729	6,181,610	8,173,809	8,337,307	8,449,924	8,516,565	8,612,605	8,780,392	8,914,072	8,972,141

ROCKLAND ELECTRIC COMPANY
SMART GRID PILOT PROPOSAL - Docket No. ER09060459
REVENUE REQUIREMENT SUMMARY

	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13
Expenses												
Book Depreciation	11,571	12,049	12,352	19,548	20,387	21,161	21,458	21,728	22,174	23,260	23,530	23,783
O&M Expenses	0	0	0	0	0	0	0	0	0	0	0	0
Total Expenses	11,571	12,049	12,352	19,548	20,387	21,161	21,458	21,728	22,174	23,260	23,530	23,783
Revenue Requirement												
Net Rate Base plus CWIP	7,831,591	7,961,500	8,069,366	8,212,137	8,393,646	8,523,150	8,602,878	8,709,236	8,887,700	9,031,236	9,098,921	9,163,214
ROR	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Earnings Base	71,593	72,780	73,767	75,072	76,731	77,915	78,644	79,616	81,247	82,560	83,178	83,766
Earnings - Expense	11,571	12,049	12,352	19,548	20,387	21,161	21,458	21,728	22,174	23,260	23,530	23,783
Total Earnings Effect	83,164	84,830	86,119	94,620	97,118	99,075	100,101	101,344	103,421	105,819	106,708	107,549
Uncollectibles Factor	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016	1.0016
Revenue requirement	83,297	84,966	86,257	94,771	97,273	99,234	100,262	101,506	103,587	105,989	106,879	107,721

ROCKLAND ELECTRIC COMPANY
SMART GRID PILOT PROPOSAL - Docket No. ER09060459
DETERMINATION OF SMART GRID SURCHARGE

Period	Revenue Requirement	Forecast MWh	Smart Grid Surcharge (¢/kWh)	Smart Grid Surcharge w/SUT (¢/kWh)
May-10 - May-11	$253,274	1,675,134	0.0151	0.0162
Jun-11 - May-12	811,693	1,621,416	0.0501	0.0536
Jun-12 - Apr-13	1,088,445	1,512,299	0.0720	0.0770
	$2,153,412	4,808,849		

ROCKLAND ELECTRIC COMPANY
SMART GRID PILOT PROPOSAL - Docket No. ER09060459
SAMPLE CALCULATION OF MONTHLY OVER/UNDER RECOVERY

	Projected	Actual
Year 1 Assumptions:	**Annual**	**Annual**
Revenue Requirement - Year 1	$253,274	$109,197
Total Sales (KWh)	1,675,134,000	1,758,890,700
Recovery Rate (excl SUT)	$0.000151	$0.000151
Total Amount Actually Collected		$265,938

Revenue Breakdown:	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	
Year 1	8.00%	10.50%	12.00%	12.00%	10.50%	7.50%	7.00%	7.00%	6.00%	80.50%
Interest Rate (Annual - Assuming Fixed Rate)										
Year 1	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	

Year 1 - As Projected Initially Based on Uniform Monthly Rev. Req.

	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Total
Revenue Requirement	$19,483	$19,483	$19,483	$19,483	$19,483	$19,483	$19,483	$19,483	$19,483	$175,344
Monthly Recoveries	(20,262)	(26,594)	(30,393)	(30,393)	(26,594)	(18,996)	(17,729)	(17,729)	(15,196)	($203,886)
(Over)/Under Recovery	($779)	($7,111)	($10,910)	($10,910)	($7,111)	$487	$1,753	$1,753	$4,286	($28,542)
Beginning Balance - (Over)/Under Recovery	$0	($779)	($7,890)	($18,801)	($29,711)	($36,822)	($36,335)	($34,582)	($32,828)	
Ending Balance (Over)/Under Recovery	($779)	($7,890)	($18,801)	($29,711)	($36,822)	($36,335)	($34,582)	($32,828)	($28,542)	
Average Balance (Over)/Under	($390)	($4,335)	($13,346)	($24,256)	($33,267)	($36,579)	($35,458)	($33,705)	($30,685)	
Average Balance (Over)/Under - Net of Tax	($230)	($2,564)	($7,894)	($14,347)	($19,677)	($21,636)	($20,974)	($19,936)	($18,150)	
Interest Rate (Monthly)	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	
Interest (To Customer) /To Company	($1)	($11)	($33)	($60)	($82)	($90)	($87)	($83)	($76)	($523)

Year 1 - Actual	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Total
Revenue Requirement	$1,745	$3,826	$4,877	$6,992	$8,519	$10,889	$16,953	$26,378	$29,018	$109,197
Monthly Recoveries	(21,275)	(27,923)	(31,913)	(31,913)	(27,923)	(19,945)	(18,616)	(18,616)	(15,956)	($214,080)
(Over)/Under Recovery	($19,530)	($24,098)	($27,036)	($24,921)	($19,404)	($9,056)	($1,663)	$7,763	$13,062	($104,883)
Beginning Balance - (Over)/Under Recovery	$0	($19,530)	($43,628)	($70,663)	($95,584)	($114,988)	($124,045)	($125,708)	($117,945)	
Ending Balance (Over)/Under Recovery	($19,530)	($43,628)	($70,663)	($95,584)	($114,988)	($124,045)	($125,708)	($117,945)	($104,883)	
Average Balance (Over)/Under	($9,765)	($31,579)	($57,145)	($83,124)	($105,286)	($119,517)	($124,876)	($121,826)	($111,414)	
Average Balance (Over)/Under - Net of Tax	($5,776)	($18,679)	($33,802)	($49,168)	($62,277)	($70,694)	($73,864)	($72,060)	($65,901)	
Interest Rate (Monthly)	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	0.42%	
Interest (To Customer) /To Company	($24)	($78)	($141)	($205)	($259)	($295)	($308)	($300)	($275)	($1,884)

ROCKLAND ELECTRIC COMPANY
SMART GRID PILOT PROPOSAL - Docket No. ER09060459
SAMPLE CALCULATION OF MONTHLY OVER/UNDER RECOVERY

	Projected	Actual
Year 2 Assumptions:	**Annual**	**Annual**
Revenue Requirement - Year 2	$811,693	$656,459
Year 1 True-Up (Over)/Under	($104,883)	($104,883)
Year 1 Interest (To Customer)/To Company	($1,884)	($1,884)
Total Amount to be Collected	$704,925	$549,692
Total Sales (KWh)	1,621,416,000	1,670,058,480
Recovery Rate (excl SUT)	$0.000435	$0.000435
Total Amount Actually Collected		$726,073

Revenue Breakdown:	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	
Year 2	6.00%	6.50%	7.00%	8.00%	10.50%	12.00%	12.00%	10.50%	7.50%	7.00%	7.00%	6.00%	100.00%
Interest Rate (Annual - Assuming Fixed Rate)													
Year 2	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%	

Year 2 - As Projected Initially Based on Uniform Monthly Rev. Req.

	Year 1 SGS				Year 2 SGS								
	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Total
Revenue Requirement	$19,483	$19,483	$19,483	$19,483	$67,641	$67,641	$67,641	$67,641	$67,641	$67,641	$67,641	$67,641	$619,059
Interest Plus (Over)/Under Recovery	(106,767)												(106,767)
Monthly Recoveries	(15,196)	(16,463)	(17,729)	(20,262)	(74,017)	(84,591)	(84,591)	(74,017)	(52,869)	(49,345)	(49,345)	(42,296)	(580,721)
(Over)/Under Recovery	($102,481)	$3,020	$1,753	($779)	($6,376)	($16,950)	($16,950)	($6,376)	$14,772	$18,296	$18,296	$25,346	($68,430)
Beginning Balance - (Over)/Under Recovery	($106,767)	($102,481)	($99,461)	($97,708)	($98,487)	($104,863)	($121,813)	($138,763)	($145,139)	($130,368)	($112,071)	($93,775)	
Ending Balance (Over)/Under Recovery	($102,481)	($99,461)	($97,708)	($98,487)	($104,863)	($121,813)	($138,763)	($145,139)	($130,368)	($112,071)	($93,775)	($68,430)	
Average Balance (Over)/Under	($104,624)	($100,971)	($98,585)	($98,098)	($101,675)	($113,338)	($130,288)	($141,951)	($137,754)	($121,220)	($102,923)	($81,102)	
Average Balance (Over)/Under - Net of Tax	($61,885)	($59,724)	($58,313)	($58,025)	($60,141)	($67,040)	($77,066)	($83,964)	($81,481)	($71,701)	($60,879)	($47,972)	
Interest Rate (Monthly)	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	
Interest (To Customer) /To Company	($248)	($239)	($233)	($232)	($241)	($268)	($308)	($336)	($326)	($287)	($244)	($192)	($3,153)

Year 2 - Actual	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Total
Revenue Requirement	$32,326	$32,994	$38,761	$42,103	$51,565	$54,027	$60,276	$60,226	$61,421	$72,499	$73,275	$76,985	$656,459
Interest Plus (Over)/Under Recovery	(106,767)												(106,767)
Monthly Recoveries	(15,956)	(17,286)	(18,616)	(21,275)	(76,238)	(87,129)	(87,129)	(76,238)	(54,455)	(50,825)	(50,825)	(43,564)	(599,536)
(Over)/Under Recovery	($90,397)	$15,708	$20,146	$20,828	($24,673)	($33,101)	($26,853)	($16,012)	$6,966	$21,674	$22,450	$33,421	($49,844)
Beginning Balance - (Over)/Under Recovery	($106,767)	($90,397)	($74,689)	($54,543)	($33,716)	($58,389)	($91,490)	($118,343)	($134,355)	($127,389)	($105,715)	($83,265)	
Ending Balance (Over)/Under Recovery	($90,397)	($74,689)	($54,543)	($33,716)	($58,389)	($91,490)	($118,343)	($134,355)	($127,389)	($105,715)	($83,265)	($49,844)	
Average Balance (Over)/Under	($98,582)	($82,543)	($64,616)	($44,130)	($46,052)	($74,939)	($104,916)	($126,349)	($130,872)	($116,552)	($94,490)	($66,554)	
Average Balance (Over)/Under - Net of Tax	($58,311)	($48,824)	($38,221)	($26,103)	($27,240)	($44,327)	($62,058)	($74,735)	($77,411)	($68,940)	($55,891)	($39,367)	
Interest Rate (Monthly)	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	0.40%	
Interest (To Customer) /To Company	($233)	($195)	($153)	($104)	($109)	($177)	($248)	($299)	($310)	($276)	($224)	($157)	($2,486)

APPENDIX D (MINIMUM FILING REQUIREMENTS)

1. The Company's income statement for the most recent 12 month period, as filed with the New Jersey Board of Public Utilities ("BPU").
2. The Company's balance sheet for the most recent 12 month period, as filed with the BPU.
3. The Company's overall capital budget for the current year broken down by major categories, including distribution and incremental capital expenditures for the Base Electric Delivery System Project ("Project"), both budgeted and actual amounts.
4. For the Base Electric Delivery System Project:
    a. The original project summary for the Base Electric Delivery System Project;
    b. Appropriate metric (e.g., , linear feet of installed equipment, number of devices installed including but not limited to distribution circuits, reclosers installed (in-line and smart etc. equipment control logic, supervisory control overrides, current sensors and control system computer etc.)
5. Anticipated project timeline with updates and expected changes.
6. A schedule detailing the Base Electric Delivery System Project to date as compared to the Company's original approved capital spending plans.
7. A summary of expenditures for the Project that identify the expenditure from project inception through the end of the current quarter.
8. A calculation of the proposed Smart Grid Surcharge.
9. A list of FTE equivalent jobs created and their duration associated with the Project.
10. A list of any and all funds or credits received from the United States government, the State of New Jersey, a county or a municipality, for work related to any of the Project, such as relocation, reimbursement or stimulus money.
    a. An explanation of the financial treatment associated with the receipt of the government funds or credits.
11. A monthly revenue requirement calculation for each month in the reconciliation period based on actual capital expenditures, as well as supporting calculations.
12. Actual revenues, by month, billed to ratepayers pursuant to the tariff(s).
13. Monthly beginning and ending clause balances, as well as the average balance for the month.
14. The interest rate used each month for over/under recoveries, and all supporting documentation and calculations for the interest rate.
15. The interest expense to be charged or credited to ratepayers each month.
16. Any additional relevant data that BPU and or Rate Counsel find necessary as part of the review for cost recovery.