STATE OF NEW JERSEY
OFFICE OF ADMINISTRATIVE LAW
BEFORE THE HONORABLE RICHARD MCGILL, ALJ

I/M/O THE VERIFIED PETITION OF ROCKLAND ELECTRIC COMPANY FOR APPROVAL OF CHANGES IN ELECTRIC RATES, ITS TARIFF FOR ELECTRIC SERVICES, ITS DEPRECIATION RATES, AND OTHER RELIEF	)	**BPU DOCKET No. ER09080668** **OAL DOCKET No. PUC-11407-2009N**

DIRECT TESTIMONY OF CHARLES SALAMONE ON BEHALF OF THE NEW JERSEY DEPARTMENT OF THE PUBLIC ADVOCATE, DIVISION OF RATE COUNSEL

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I. STATEMENT OF QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Charles P. Salamone. I am Owner of Cape Power Systems Consulting, LLC a power systems consulting company with an address of 23 Westerly Drive, Bourne, Massachusetts and I am subcontracting with Synapse Energy Economics, Inc. with an address of 22 Pearl Street, Cambridge, Massachusetts.

Q. On whose behalf are you submitting testimony in this proceeding?

A. I am submitting testimony on behalf of the New Jersey Department of the Public Advocate, Division of Rate Counsel.

Q. Please describe your education and professional background.

A. I hold a Bachelor of Science Degree in Electrical Engineering from Gannon University. I joined the Engineering Department of Commonwealth Electric Company in 1973. At that time, I became a Junior Planning Engineer where my primary responsibilities were to assist in the planning, analysis and design of the transmission and distribution systems of Commonwealth Electric Company. I generally followed the normal progression of positions with increasing levels of responsibility within the planning area until taking the position of Director of System Planning in 2000. I retired from NSTAR (the successor entity formerly Commonwealth Electric and Boston Edison) in 2005 and formed my own consulting company. During my career with NSTAR in addition to the responsibilities associated with overseeing System Planning I had served as Chair

of the New England Power Pool (NEPOOL) Planning Policy Subcommittee (1997-1998), Chair of the NEPOOL Regional Transmission Planning Committee (1998-1999) and Vice Chair of the NEPOOL Reliability Committee (1999-2000). As a consultant I have been providing consulting services to a number of power system industry clients since 2005. I am a Registered Professional Engineer with the Commonwealth of Massachusetts. I am also a member of the Power Engineering Society of the Institute of Electrical and Electronic Engineers. A copy of my resume is attached hereto as Attachment CPS-1.

Q. Have you previously testified before utility regulatory agencies?

A. Yes. I have previously testified before the Federal Energy Regulatory Commission, the Massachusetts Department of Telecommunications, and Energy the Massachusetts Energy Facilities Siting Board and the New Jersey Board of Public Utilities on a number of technical matters relating to ratemaking and system planning.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to discuss Rockland Electric Company's ("RECO" or the "Company") practices concerning development of outage statistics and the exclusion of outage events. I will discuss the Company's planning and design of substation capacity and the appropriateness of inclusion of some associated costs in the current rate filing. I will also discuss the costs of the

Company's tree trimming program and the lack of improvement with respect to tree related outages. Additionally, I will discuss the out-of-date planning criteria and design documentation provided by the Company. Finally, I will discuss the testimony provided by the Company's witness Donald Kennedy in support of the addition of a new construction project manager in its Saddle River office.

III. RELIABILITY STATISTICS

Q. How does RECO calculate its reliability statistics and what problems did you observe with these calculations?

A. The Company is obligated to track and report reliability statistics per the procedures established by the New Jersey Board of Public Utilities ("BPU" or the "Board") under N.J.A.C.14:5-1.2. These procedures are based on IEEE Standard 1366 and they allow for the exclusion of major events from the determination of SAIFI and CAIDI[1] values. Major events that affect 10% or more of the customers in an "operating area" are not counted in the statistics. As noted in the IEEE Standard, the basis for this exclusion came from early developments of the IEEE reliability statistics which were founded on an understanding that major events that stressed the system in terms of large scale wide spread outages should not be considered when evaluating the day-to-day reliability performance of the system since they stress the resources of a utility beyond reasonable expectations.

[1] The IEEE Standard describes CAIDI as "CAIDI represents the average time required to restore service." Mathematically, this is given by the equation CAIDI = ∑Customer Interruption Durations ÷ Total Number of Customers Interrupted. SAIFI is described as "the system average interruption frequency index indicates how often the average customer experiences a sustained interruption over a predefined period of time. Mathematically, this is given by the equation SAIFI = ∑ Total Number of Customers Interrupted ÷ Total Number of Customers Served.

IEEE has, through further research, offered a statistically based method for determining when events are of such a magnitude that they should be excluded. In general, based on IEEE evaluations documented in Standard 1366, there should be an average 2.3 major events per year using a method that determines when events are of such a magnitude that they should reasonably be excluded. The process that is currently being used by the

Company (as well as all other companies in New Jersey) allows for what amounts to an arbitrary threshold for exclusion of events. The definition of operating areas is at best a nebulous one and is often derived from a company's historical lineage of merger and acquisitions rather than any logical organization of service areas. Based on the annual RECO Service Reliability Filing for 2008 System Performance provided in response to discovery question RCR-ENG-3, a case in point is the RECO Western Division, which is a New Jersey service area that entails only 9 square miles. The Company reasonably includes this operating division area in a larger service area for the purposes of reporting reliability statistics but it does point out how varied the character of operating division areas can be.

The list of excluded events that the Company used in determining its statistics had as few as 3,064 customers out of service. This can hardly be construed as an event that stressed the company beyond its ability to respond. In fact the largest major event of the four that were excluded, involved less than 8,700 customers. These levels are for many utilities routine, day-to-day events and for larger

service territories would not meet the threshold of a major event. I recommend that the basis for designating an event as a major event be altered to either include the IEEE statistical procedures or be based on a total company service territory population rather than allowing for arbitrary exclusions that potentially mask the true reliability performance of a company.

IV. SUBSTATION CAPACITY

Q. Did you review the Company's substation design from a capacity planning perspective?

A. Yes. In response to discovery question RCR-ENG-1, RECO provided information concerning the capacity available at each of its substations as well as the prior and projected peak demand seen by those stations. I reviewed the information provided for the Company's 13 substations and derived some statistics concerning these stations.

Q. Did you find any concerns associated with the statistics you derived for the capacity utilization of transformers at these substations?

A. Yes. The primary concern was that there is a substantial amount of idle stand-by capacity installed at many of the Company's substations. Exhibit CPS-2 which is based on the Company's response to discovery question RCR-ENG-1 provides the calculations for percent utilization and total spare capacity available at these substations. The calculations indicate that in aggregate only 55% of the installed

capacity at these substations is being utilized to serve peak demands and that 45% of the capacity is idle serving as stand-by capacity. In total this means that over 438 MVA[2] of capacity goes unused waiting for a transformer failure to occur. In addition the Company maintains mobile transformers that also serve to add capacity to the system in the event of a transformer failure and this additional capacity was not included in the calculations.

Q. Is this stand-by capacity excessive?

A. Yes. Based on the Company's load forecast included in response to discovery question RCR-ENG-1 which indicates a 2.8% compound annual growth rate and calls for an increase in demand of only 133 MW over the next 10 years holding 438 MVA of capacity in reserve, is both excessive and costly. There is a need to provide backup transformer capacity but the Company has apparently designed its system such that most substations require fully redundant capacity sitting in stand-by mode.

Q. Is there a cost consequence associated with the idle capacity and what recommendations would you make concerning costs included for rate recovery?

A. The cost associated with this idle capacity can be derived from the incremental cost associated with adding substation capacity to the system. Based on the information provided in response to discovery question RCR-ENG-41 derived

[2] MVA stands for Mega Volt Amperes which represents one million volts and amps.

from the cost of a recently constructed substation, the incremental cost of substation capacity is approximately $91/KVA[3]. Based on this estimate the cost consequence of this much idle capacity is just under $50 million per year. This is a substantial cost that could be reduced through greater reliance on transformer capacity available at adjacent stations. While the Planning Criteria document provided in response to discovery question RCR-ENG-10 includes consideration of this approach the installed capacity values indicate that this design option is rarely used. Based on response to discovery questions RCR-ENG-41, the Company has included in its filing the cost of land for a new substation in Montvale. I would recommend that the $2 million expense for land associated with this new substation be withheld from inclusion in rate recovery until the practices the company employs concerning the addition of new substation capacity are reviewed for prudency.

V. TREE TRIMMING PROGRAM

Q. Did you review the Company's tree trimming program?

A. Yes. The Company reported in response to discovery RCR-ENG-9 that it has approximately 862 miles of overhead distribution circuits on its system in New Jersey. Based on this information and the tree trimming program costs as described in response to discovery RCR-ENG-48, the average cost is over $4,000

[3] KVA stands for Kilo Volt Amperes which represents one thousand volts and amps.

for every mile of distribution circuit. This is a conservative number since some of the circuit miles listed run in parallel or are co-located on the same structures which would reduce the number of circuit miles and result in a higher cost per mile of tree trimming.

Q. Do you see any concerns associated with the Company's tree trimming program?

A. Yes. While the costs of over $4,000 per mile for tree trimming are somewhat high they are not inordinate. However, the benefits expected to accrue from such trimming do not appear to be in line with the expense. The outage data included in Figure 1 below which was taken from the Company's Service Reliability report provided in response to discovery questions RCR-ENG-3 indicate that tree related outages account for over 40% of the top 5 customer interruption events and show the trend increasing over the past 10 years rather than decreasing. Although a high level review of the tree trimming program specifications did not reveal any significant deficiencies there appears to be a flaw in the program's design and/or implementation. Many companies employ one or more dedicated arborists and also have staff available to provide quality control and quality assurance of the tree trimming services the company receives. I would recommend that the company consider employing such resources.

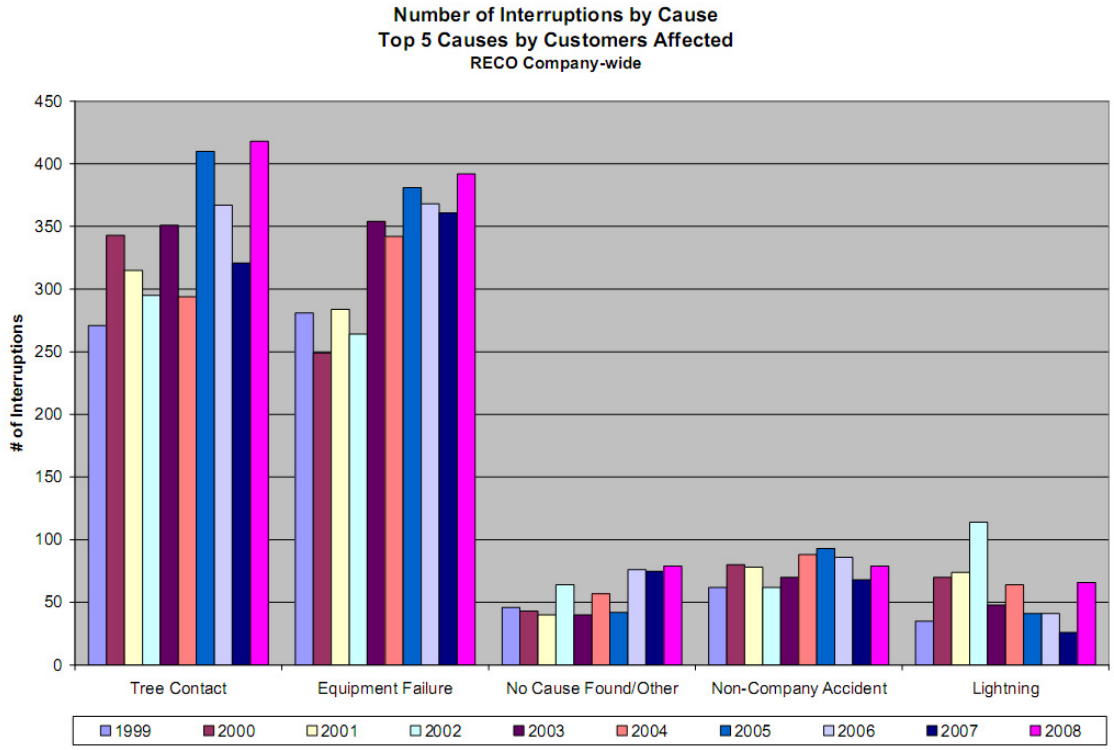

Figure 3

Figure 1 - RECO Top 5 Causes

VI PLANNING CRITERIA DOCUMENT

Q. Did you review the Planning Criteria document provided by the Company?

A. Yes. In response to discovery question RCR-ENG-10 the company provided a copy of its "Planning Criteria". The document title page indicated that it was last updated on October 31, 1991 and its contents included both system planning and system design criteria for the Company's distribution system.

Q. Did you find any issues associated with this document?

A. Yes. The obvious concern was that the document had not been updated since 1991 over 18 years ago. System characteristics, equipment design and operation as well as a host of other factors have evolved considerably over the past 18 years. In general, the basic engineering and technical data within the document appeared to be sound. However, there were a number of issues that would warrant updating the document to reflect current system conditions and requirements. Foremost among these was the "Service Reliability" section of the document. This section discusses the reliability indices for the company including some of the parameters and some of the primary causes of interruption. There is no mention within this text concerning tree contact related outages and the means to help avoid such outages. In fact beyond a single note concerning tree trimming cycles there is no other mention of this type of outage anywhere in the document. Tree related outage issues should be included in any discussion concerning service reliability

of the system since it constitutes the majority of customer outages on the RECO system. I would recommend that the document be updated to include design considerations the help minimize tree contact related outages.

Additionally, the discussion within the Service Reliability section only considers the requirements for reliability performance under the New York State standards and fails to recognize any of the New Jersey reliability standards. I would recommend that the Planning Criteria document be reviewed and updated as soon as practical. I also suggest that it include a review of design options that minimize tree related outages and that it includes recognition of the standards New Jersey has set for maintaining system reliability.

VII NEW SADDLE RIVER CONSTRUCTION MANAGER

Q. Have you reviewed the testimony provided by Mr. Kennedy concerning the addition of a construction manager for the Company's Saddle River office?

A. Yes. Based on the information provide in response to discovery, it appears that the justification for this new position is not well supported. The justification for the new position was stated as being in part due to increased workload at this office.

Q. How does the Company's forecast of residential permits within Bergen and Passaic counties compare to the historical permit and staffing requirements?

A. The forecast of residential permits provided by the Company in RCR-ENG-26 is lower than the historical permit data for 2005 through 2007, although it is higher than 2004 permit data when the Company indicated that it had four project managers in the Saddle River office.

Q. Is the Saddle River office experiencing a sufficient increase in permitting that requires another project manager?

A. No. Based on the Company's response to RCR-ENG-26, the numbers of actual and projected new residential and commercial projects derived from historical and projected residential permit data are provided in Exhibit CPS-3. The data indicates that the forecasted workload for the Saddle River office is above historic 2004 levels, but below historic 2005 through 2007 levels.

Q. How do the projected levels of permits compare to historic staffing levels?

A. The Company has indicated that current staffing is insufficient to meet new demands either through new projects and/or complexities associated with ongoing work as noted in Kennedy. In the Company's response to RCR-ENG-22, the

number of real time pricing accounts and customers has fluctuated slightly between 2007 and 2009 (See CPS Exhibit 3).

Historic staffing levels as noted in Mr. Kennedy's testimony indicated that in 2004, the Saddle River office had four project managers for 409 new projects. Combining the Company's responses to RCR-ENG-16 and RCR-ENG-26 (See CPS exhibit 3), the data indicates that despite having fewer than four staff members; the Saddle River office managed a similar number of projects.

Additionally the number of complex projects would not appear to be any greater than it has historically been. The Company has indicated that major account engineers are responsible to meet with large customers to explain the real-time pricing program as noted in Kennedy (page 6, line 14). This work did not occur prior to 2003. In the Company's response to RCR-ENG- 22, the number of real time pricing accounts and customers has fluctuated slightly between 2007 and 2009 (See CPS Exhibit 3) between 27, 29, and 25 customers suggesting that there is no expected increase in complex accounts that support the need for additional personnel. Based on this information, it would be difficult to consider the additional managerial position as a prudent company expense at this time.

VIII SUMMARY

Q. Please summarize your conclusions and recommendations regarding the ratemaking issues concerning RECO's rate case filing?

A. In summary I would recommend that the Company begin discussions with the Board concerning more appropriate ways to determine when a major event has occurred that should reasonably be excluded from reporting of reliability statistics. I am also recommending that the expense associated with acquisition of land for a new substation in Montvale be withheld pending a review of the substation design practices the company has employed over the past 5 years to determine if a more prudent and less costly design can be implemented by the Company. I am also recommending that the Company update its Planning Criteria document and the this update include consideration of avoidance of tree related outages as a design principal and that it include reference to the New Jersey reliability standards. Additionally, I am recommending that the Company review in detail its tree trimming program and the resources it has available to ensure that the program is a cost effective one and that efforts be directed to reducing the number of tree contact related outages seen by customers. Finally, I am recommending the Company reconsider its proposal for addition of a new Construction Project Manager position for its Saddle River office.

Q. Does this conclude your testimony?

A. Yes. However, I reserve the right to supplement my testimony based on further updates to discovery and the RECO's rebuttal testimony.

EXHIBITS CPS-1 TO CPS-3

Charles P. Salamone PE

Attachment CPS-1

Charles P. Salamone, P.E.

Profession: Power Systems, with a special emphasis on transmission planning and design

Nationality: U.S. Citizen

Years of Experience: 34 years

Education B.S.E.E, Power System Engineering, 1973
Gannon University, Erie, PA

Position: Owner/Manager, Cape Power Systems Consulting

Web/Email: www.CapePowerSystems.com csalamone@capepowersystems.com

Summary: Mr. Salamone provides professional services based on his 34 years of experience in the areas of Transmission Planning, Substation Planning, Distribution Planning ISO-New England Procedures, New England Power Pool Procedures, Congestion Management, Generator Interconnections, Meter Engineering, Planning Budget Management, and State (Mass DTE) and Federal (FERC) Regulatory Agency Filing Development and Expert Witness Testimony

Experience:

2005- Pres. **Cape Power Systems Consulting**

Established a power system design, analysis, planning and assessment consulting company to work directly with diverse power system stakeholders.

- Work with a number of clients concerning development of analysis, reports and presentations in support of regulatory and technical review/approval process for transmission and distribution projects.
- Provide technical assistance for transmission planning activities for an Independent System Operator including support for major transmission system expansion programs and development of a 10 year transmission plan

- Developed and conducted a comprehensive training program for implementation of EMS based transmission system security assessment procedures for a large Massachusetts utility
- Work with Massachusetts Technology Collaborative providing technical support concerning electric utility design and analysis activities

1979-2005 NSTAR (Previously Boston Edison and Commonwealth Electric)

2000-2005 ***Director System Planning***
NSTAR (Previously Boston Edison and Commonwealth Electric) Boston, MA

- Responsible for long term planning of Company transmission, substation and distribution systems
- Successfully managed the studies, design, internal and external review and regulatory approval for a $250M 345 kV underground transmission expansion project serving the greater Boston area
- Responsible for managing generator interconnection studies, design and approvals
- Successfully managed studies, design and approval for congestion mitigation plans and expansion project
- Oversaw transmission and distribution planning efforts to establish a comprehensive 10 year $300 million system expansion plan
- Served as Company representative on NEPOOL Reliability Committee and the New England Transmission Expansion Advisory Committee
- Served as Company expert witness for system planning related regulatory proceedings at both the state and federal levels.
- Supervised a staff of 10 senior engineers

1989-1999 ***Manager, System Planning and Meter Services***
Commonwealth Electric Company, Wareham, MA

- Develop risk based prioritized $10 million construction budget procedures
- Supervise a staff of 6 professional engineers and 4 analysts
- Served as chair of the NEPOOL Regional Transmission Planning Committee (currently the NEPOOL Reliability Committee)
- Process billing determinant and interval data for all major system customers
- Lead implementation of first MV90 meter data processing system
- Develop annual performance analysis reports for all transmission and major distribution systems
- Manage multiple FERC tariff based transmission customer and generation developer system impact studies
- Served as expert Company witness in State and FERC regulatory proceedings
- Initiated implementation of a risk index for prioritization of all transmission and major distribution construction projects

- Initiated implementation of automated electronic processing of major customer billing data, which significantly reduced time needed to generate bills
- Served as lead member on information technology company merger team
- Implemented process and equipment to perform all tie line, generator and wholesale customer meter testing
- Served as chair of the NEPOOL Planning Process Subcommittee, which established numerous NEPOOL policies for transmission and generator owners
- Served as Vice-Chair of the NEPOOL Reliability Committee

1984-1989 ***Meter Engineer***
Commonwealth Electric Company, Plymouth, MA

- Designed and supervised installation of 15 generator metering and data recorders
- Developed customer load plotting and analysis software
- Developed meter equipment order data processing system for four remote offices
- Implemented PC control of meter test boards, which significantly reduced processing and record keeping time
- Managed programming of all electronic meter registers to insure accurate data registration

1979-1984 ***Computer Application Engineer***
Commonwealth Electric Company, Wareham, MA

- Implemented numerous technical and analytical software applications for engineering analysis
- Served as member of decision team for implementation of a new SCADA system

1978-1979 **San Diego Gas & Electric, *Planning Engineer***
San Diego Gas & Electric Company, San Diego, CA

- Performed extensive stability analysis for a new 230 kV transmission interconnection with Mexico
- Performed transmission design and performance analysis for a new 250 mile 500 kV line from San Diego to Arizona

1973-1978 **New England Gas & Electric Association, *Planning Engineer***
New England Gas & Electric Association, Cambridge, MA

- Performed extensive stability analysis for a new 560 MW generating plant on Cape Cod
- Developed transmission plan for a new 345 kV transmission line on Cape Cod
- Developed plans for design and sighting of new 115 / 23 kV substations on Cape Cod

Exhibit CPS-2

Station	Data		Excess Capacity	Normal Rating
Allendale	**2008 Actual Transformer Peak:**	29.3	14.4	43.7
Allendale	**Transformer Ratings(MVA)**			
Allendale	**Top MVA Rating:**	35.0		
Allendale	**Normal:**	43.7		
Allendale	**LTE:**	51.2		
Allendale	**STE:**	61.7		
Allendale	Allendale			
Allendale	**2008 Actual Transformer Peak:**	33.5	10.7	44.2
Allendale	**Transformer Ratings(MVA)**			
Allendale	**Top MVA Rating:**	35.0		
Allendale	**Normal:**	44.2		
Allendale	**LTE:**	51.0		
Allendale	**STE:**	64.1		
Closter	**2008 Actual Transformer Peak:**	25.6	16.7	42.3
Closter	**Transformer Ratings(MVA)**			
Closter	**Top MVA Rating:**	35.0		
Closter	**Normal:**	42.3		
Closter	**LTE:**	48.3		
Closter	**STE:**	61.9		
Closter	**2008 Actual Transformer Peak:**	23.6	20.6	44.2
Closter	**Transformer Ratings(MVA)**			
Closter	**Top MVA Rating:**	35.0		
Closter	**Normal:**	44.2		
Closter	**LTE:**	50.2		
Closter	**STE:**	60.7		
Cresskill	**2008 Actual Transformer Peak:**	20.2	26.8	47.0
Cresskill	**Transformer Ratings(MVA)**			
Cresskill	**Top MVA Rating:**	35.0		
Cresskill	**Normal:**	47.0		
Cresskill	**LTE:**	58.0		
Cresskill	**STE:**	65.0		
Cresskill	**2008 Actual Transformer Peak:**	22.2	24.8	47.0
Cresskill	**Transformer Ratings(MVA)**			
Cresskill	**Top MVA Rating:**	35.0		
Cresskill	**Normal:**	47.0		
Cresskill	**LTE:**	58.0		
Cresskill	**STE:**	65.0		
Darlington	**2008 Actual Transformer Peak:**	20.9	26.1	47.0
Darlington	**Transformer Ratings(MVA)**			
Darlington	**Top MVA Rating:**	35.0		
Darlington	**Normal:**	47.0		
Darlington	**LTE:**	58.0		
Darlington	**STE:**	65.0		
Darlington	**2008 Actual Transformer Peak:**	23.4	23.6	47.0
Darlington	**Transformer Ratings(MVA)**			
Darlington	**Top MVA Rating:**	35.0		
Darlington	**Normal:**	47.0		
Darlington	**LTE:**	58.0		
Darlington	**STE:**	65.0		
Franklin Lakes	**2008 Actual Transformer Peak:**	21.6	11.1	32.7
Franklin Lakes	**Transformer Ratings(MVA)**			
Franklin Lakes	**Top MVA Rating:**	25.0		
Franklin Lakes	**Normal:**	32.7		
Franklin Lakes	**LTE:**	37.5		

Exhibit CPS-2

Station	Data		Excess Capacity	Normal Rating
Franklin Lakes	**STE:**	43.4		
Franklin Lakes	**2008 Actual Transformer Peak:**	17.1	12.9	30.0
Franklin Lakes	**Transformer Ratings(MVA)**			
Franklin Lakes	**Top MVA Rating:**	25.0		
Franklin Lakes	**Normal:**	30.0		
Franklin Lakes	**LTE:**	34.0		
Franklin Lakes	**STE:**	41.1		
Grand Ave	**2008 Actual Transformer Peak:**	18.9	5.5	24.4
Grand Ave	**Transformer Ratings(MVA)**			
Grand Ave	**Top MVA Rating:**	20.0		
Grand Ave	**Normal:**	24.4		
Grand Ave	**LTE:**	28.0		
Grand Ave	**STE:**	34.0		
Grand Ave	**2008 Actual Transformer Peak:**	15.0	15.7	30.7
Grand Ave	**Transformer Ratings(MVA)**			
Grand Ave	**Top MVA Rating:**	25.0		
Grand Ave	**Normal:**	30.7		
Grand Ave	**LTE:**	35.8		
Grand Ave	**STE:**	41.8		
Harings Corner	**2008 Actual Transformer Peak:**	30.6	1.0	31.6
Harings Corner	**Transformer Ratings(MVA)**			
Harings Corner	**Top MVA Rating:**	25.0		
Harings Corner	**Normal:**	31.6		
Harings Corner	**LTE:**	37.0		
Harings Corner	**STE:**	42.0		
Harings Corner	**2008 Actual Transformer Peak:**	17.0	13.8	30.8
Harings Corner	**Transformer Ratings(MVA)**			
Harings Corner	**Top MVA Rating:**	25.0		
Harings Corner	**Normal:**	30.8		
Harings Corner	**LTE:**	35.9		
Harings Corner	**STE:**	41.8		
Montvale	**2008 Actual Transformer Peak:**	30.3	17.7	48.0
Montvale	**Transformer Ratings(MVA)**			
Montvale	**Top MVA Rating:**	35.0		
Montvale	**Normal:**	48.0		
Montvale	**LTE:**	57.0		
Montvale	**STE:**	65.0		
Oakland	**2008 Actual Transformer Peak:**	20.4	22.5	42.9
Oakland	**Transformer Ratings(MVA)**			
Oakland	**Top MVA Rating:**	35.0		
Oakland	**Normal:**	42.9		
Oakland	**LTE:**	51.1		
Oakland	**STE:**	60.9		
Oakland	**2008 Actual Transformer Peak:**	22.3	25.7	48.0
Oakland	**Transformer Ratings(MVA)**			
Oakland	**Top MVA Rating:**	35.0		
Oakland	**Normal:**	48.0		
Oakland	**LTE:**	58.0		
Oakland	**STE:**	65.0		
Ringwood	**2008 Actual Transformer Peak:**	14.7	16.3	31.0

Exhibit CPS-2

Station	Data		Excess Capacity	Normal Rating
Ringwood	**Transformer Ratings(MVA)**			
Ringwood	**Top MVA Rating:**	25.0		
Ringwood	**Normal:**	31.0		
Ringwood	**LTE:**	36.5		
Ringwood	**STE:**	43.2		
South Mahwah	**2008 Actual Transformer Peak:**	28.3	5.2	33.5
South Mahwah	**Transformer Ratings(MVA)**			
South Mahwah	**Top MVA Rating:**	25.0		
South Mahwah	**Normal:**	33.5		
South Mahwah	**LTE:**	38.5		
South Mahwah	**STE:**	43.8		
South Mahwah	**2008 Actual Transformer Peak:**	24.2	21.2	45.4
South Mahwah	**Transformer Ratings(MVA)**			
South Mahwah	**Top MVA Rating:**	35.0		
South Mahwah	**Normal:**	45.4		
South Mahwah	**LTE:**	54.0		
South Mahwah	**STE:**	63.0		
Upper Saddle River	**2008 Actual Transformer Peak:**	27.5	20.5	48.0
Upper Saddle River	**Transformer Ratings(MVA)**			
Upper Saddle River	**Top MVA Rating:**	35.0		
Upper Saddle River	**Normal:**	48.0		
Upper Saddle River	**LTE:**	58.0		
Upper Saddle River	**STE:**	65.0		
Upper Saddle River	**2008 Actual Transformer Peak:**	20.3	27.7	48.0
Upper Saddle River	**Transformer Ratings(MVA)**			
Upper Saddle River	**Top MVA Rating:**	35.0		
Upper Saddle River	**Normal:**	48.0		
Upper Saddle River	**LTE:**	58.0		
Upper Saddle River	**STE:**	65.0		
West Milford	**2008 Actual Transformer Peak:**	14.5	33.5	48.0
West Milford	**Transformer Ratings(MVA)**			
West Milford	**Top MVA Rating:**	35.0		
West Milford	**Normal:**	48.0		
West Milford	**LTE:**	58.0		
West Milford	**STE:**	65.0		
West Milford	**2008 Actual Transformer Peak:**	20.5	23.9	44.4
West Milford	**Transformer Ratings(MVA)**			
West Milford	**Top MVA Rating:**	35.0		
West Milford	**Normal:**	44.4		
West Milford	**LTE:**	53.5		
West Milford	**STE:**	62.1		

Total Excess Capacity	Total Capacity	
437.9	979.8	in MVA
	55%	% Utilization
	$ 39,768,034	Equivalent Cost

Exhibit CPS-3

Saddle River Project Type, Workload, and Staffing					
Year	**Residential Projects**	**Commercial Projects**	**Total Actual/Forecast Workload**	**Total Bergen and Passaic Building Permits**	**Staff Count FTE**
2004			409	2,905	4
2005			529	3,619	4
2006			571	3,014	4
2007	441	78	519	3,711	3.5
2008	291	99	390	1,743	3.16
2009			384	884	3
2010			392	1,329	
2011			420	1,826	
2012			454	2,414	
2013			464	2,588	
2014			457	2,474	
2004 to 2006 FTE based on Kennedy testimony (page 3, lines 2 through 4) Residential and Commercial projects taken from RCR-ENG-25 Permit and workload data taken from RCR-ENG-26 Staff Counts taken from RCR-ENG-16					

Exhibit CPS-3

Real Time Pricing Accounts and Major Account Engineer Staffing Levels			
Year	**Accounts**	**Customers**	**Staff Count FTE for MAE**
2007	33	27	2
2008	37	29	1.83
2009	33	25	1
Real time Pricing Accounts and Customer data taken from RCR-ENG-22 Staff Counts for Major Account Engineer taken from RCR-ENG-16			