
KERI L. GLITCH

PROFESSIONAL EXPERIENCE

IBERDROLA USA

2013 – Present Vice President – Chief Security Officer – Cyber, Physical and NERC Compliance

- Senior executive responsible for Iberdrola's physical, cyber, and NERC compliance areas responsible for all of Iberdrola USA's operating companies in the United States including Central Maine Power, New York State Electric and Gas, Rochester Gas and Electric, Iberdrola Renewables, and Iberdrola Energy Holdings operating in 22 states.
- Responsible for annual operational budget of approximately \$7MM, capital budget of \$20Mm, and 30+ employees.

2011-2013 Executive Director, Information Technology (CIO)

- Senior IUSA Information Technology leader responsible for Iberdrola USA's operating companies including Central Maine Power, New York State Electric and Gas, Rochester Gas and Electric. Member of the Executive team, responsible for direction and strategic initiatives.
- Responsible for annual operational budget of approximately \$42MM, capital budget of approximately \$30M and 140 employees.

2010-2011 Director, Information Technology Infrastructure, Operations and Communications

- Senior IT leader responsible for all IT infrastructure supporting Iberdrola USA's five primary operating companies including Connecticut Natural Gas, Central Maine Power, New York State Electric and Gas, Rochester Gas and Electric, and Southern Connecticut Gas.
- Responsible for setting strategy and managing all operational aspects.
- Responsibility for annual operational budget of approximately \$26 MM, capital budget of approximately \$7M, and 60+ employees.

EDUCATION

Rochester Institute of Technology
Master of Science, Multidisciplinary Studies with concentrations in Human Resource Management, Instructional Technology, and Service Management, May 2005

State University of New York at Geneseo
Bachelor of Science, Business Management, 1999

HUGH J. IVES

PROFESSIONAL EXPERIENCE

IBERDROLA USA MANAGEMENT CORPORATION, June 2014 – Present: Director (April 2015) / Directing Manager (June 2014), Substation and Hydro Operations and Automation, Central Maine Power Company (CMP), New York State Electric and Gas Corporation (NYSEG) and Rochester Gas and Electric Corporation (RG&E).

- Responsible for safe and reliable operation and maintenance of 850 substations at CMP, NYSEG and RG&E, 14 generating plants/associated facilities (i.e., dams) across NY with an installed capacity of approximately 133 MW; RG&E's Beebee Station and Russell Station decommissioned coal-fired generating plants (currently being demolished and remediated), and CMP, NYSEG and RG&E Line and Substation Automation programs.
- Responsible for day-to-day Administration, Operations, Maintenance and execution of Regulatory/Hydro license and environmental compliance related to substations, hydro and automation programs; Employee, Facility, and Public Safety Programs; Procedures and Processes; Employee Training; Capital Improvements, Capital and O&M Budget planning and management, Electric Reliability and Plant Performance, Growth and Economics, and Human Resource-related administrative matters such as employee/labor relations issues, employee appraisals and new hires.

ROCHESTER GAS AND ELECTRIC CORPORATION, April 2008 – May 2014: Manager, New York State Electric and Gas Corporation (NYSEG) and Rochester Gas and Electric Corporation (RG&E), Fossil/Hydro Operations

- Full oversight responsibility of NYSEG and RG&E Fossil/Hydro Operations; 18 generating plants and associated facilities (i.e., dams) across NY with an installed capacity of 220 MW.
- Responsible for the following key areas: Administration, Engineering, Operations, Maintenance, Hydro Regulatory/License and Environmental Compliance, Employee, Facility and Public Safety Programs, Generation Procedures and Processes, Employee Training, Capital Improvements, Growth, Capital and O&M Budget planning and management, Plant Performance, Plant Economics, and Human Resource-related administrative matters such as employee/labor relations issues, employee appraisals and new hires.
- Responsible for day-to-day operations and maintenance of RG&E's Beebee Station and Russell Station decommissioned coal-fired generating plants as well as managing Fossil/Hydro engineering support to demolish and remediate of those plants/sites.
- Expert witness in major rate proceedings for the 2009 NYSEG and RGE Electric rate cases.

November 2006 to April 2008 - Manager, Fossil Hydro Operations

- Responsible for day-to-day operations of NYSEG and RG&E fossil and hydro generating plants
- Responsible for hydro license/regulatory and environmental compliance
- Responsible for establishing and managing Operating budgets
- Responsible for plant/unit performance
- Responsible for providing modification direction and support to four NYSEG supervisors assigned to fossil/hydro plants.

November 2001 to November 2006 - Project Engineer and Hydro Coordinator, Fossil/Hydro Engineering.

- Responsible for project and construction management, conceptual and detailed designs, specification and procedure developments, equipment procurement, system commissioning and budgets of assigned generation system projects, with the primary focus on electrical, control, instrumentation and hydro SCADA systems, as well as providing support to Generation operations and maintenance business areas.
- Responsible for oversight and execution of FERC Hydro License/Regulatory Compliance. Responsibilities included coordinating hydro related matters with local, state and federal agencies.
- In March 2003, resulting from merger with Energy East Corporation, assigned Technical Coordinator duties for NYSEG generation.
- Responsibilities and duties included coordinating all engineering support; developing and managing O&M and capital budgets; supporting and directing hydro supervisors in operation, maintenance and minor modification work; managing hydro regulatory licensing and compliance matters; and managing miscellaneous administrative matters as assigned by the Vice-President of F/H Operations, such as the generation component of the 2005 NYSEG rate case and various administrative matters.

July 2000-November 2001 – Project Electrical Engineer, Energy Systems Development - Substations

- Assigned Project lead for the RG&E Distribution and Substation Automation initiative.
- Responsible for project and construction management, conceptual and detailed designs, specification and procedure developments, equipment procurement, system commissioning with the primary and budgets of assigned electric transmission and distribution system projects, as well as providing support to electric T&D operations and maintenance business areas.

September 1990-July 2001 – Project Electrical Engineer and Hydro License Coordinator, Fossil/Hydro Engineering

- Responsible for project and construction management, conceptual and detailed designs, specification and procedure developments, equipment procurement, system commissioning and budgets of assigned generation system projects, with the primary focus on high and low voltage distribution electrical systems, switchgear, control, instrumentation, protective relaying and SCADA systems, as well as providing technical support to Generation operations and maintenance business areas.
- Responsible for providing the engineering duties listed above for RG&E Common Facilities/Service Centers from 1990 to 1995.
- Responsible for oversight and execution of FERC Hydro License/Regulatory Compliance (assigned in July 1999). Responsibilities included coordinating hydro related matters with local, state and federal agencies.

December 1989-September 1990 - Technical Instructor, Production Division Training.

- Responsible to develop and implement technical courses related to operator and electrical disciplines at the RG&E Ginna Nuclear power plant.

April 1982-December 1989 - Substation/Power Plant Maintenance Technician, Electric Substations Maintenance/Production Departments.

- Responsible to perform preventative maintenance, failure analysis and corrective maintenance of generation and substation equipment.
- Responsible to construct new system modifications and perform miscellaneous design/field modifications.
- Responsible to attain and maintain skills and safety training qualifications for working on substation and electric production equipment and facilities.

July 1981-April 1982 - Meter Reader, Meter Reading Department

ROCHESTER INSTITUTE OF TECHNOLOGY, September 1988 – May 1991 (evenings). Instructor, Adjunct Faculty. Instructed Machines and Power Systems, a second year college level course.

MILITARY

United States Army, Air Defense Artillery, Electromechanical Technician: February 1978 to April 1981.

- Responsible to maintain electrical, electronic, pneumatic, hydraulic and mechanical equipment for Hawk air defense radar, missiles, launchers and loaders.
- Attained Specialist E-5 rank in 1980
- Duty assignments: Fort Bliss, Texas, Fort Lewis Washington, and South Korea

EDUCATION

- **BS, Applied Arts and Sciences**, Business Management, Rochester Institute of Technology, Rochester, NY; Projected graduation: 2016.
- **BS, Electrical Engineering**, Rochester Institute of Technology, Rochester, NY; 146 credit hours completed;
- **AAS, Electrical Engineering**, Rochester Institute of Technology, Rochester NY, 1990.
- **Master Electrician**, 1993 - 2015

COMMUNITY SERVICE / VOLUNTEER

- Chair, Board of Management, YMCA, Maplewood Branch, Sept. 2003 – 2008

Bill Ransom

PROFESSIONAL EXPERIENCE

Iberdrola USA Management Corporation

2011 - Present

2011 – Present Director – Asset Management and Maintenance

I direct Iberdrola USA's programs and policies related to the maintenance and assessment of electric transmission, distribution, and substation assets for CMP, NYSEG, and RGE. Primarily, this involves the oversight of the company's line and substation test and inspection programs, routine and preventative maintenance programs, and T&D vegetation management.

Additionally, I oversee the asset condition assessment process, including asset class health index and risk analysis, and capital/maintenance remediation recommendation.

New York State Electric & Gas (NYSEG)

2010 - 2011

2010 - 2011 Manager - Regional Operations, Lancaster/Lockport Divisions

I managed the activities of a highly skilled workforce of professional and craft workers, in the delivery of electricity to approximately 176,000 customers in a 1,800 sq mile portion of western New York State. This involved the coordination of all aspects of employee relations, labor relations, public relations, construction management, and safety program administration.

**New York State Electric & Gas (NYSEG)
Rochester Gas & Electric (RG&E)**

2004 - 2010

2004 – 2010 Director - Regional Operations, West Region

I directed the activities of a highly skilled workforce of over 250 professional and craft workers, in the delivery of electricity and natural gas to approximately 280,000 customers in a 3,000sq mile portion of western New York State. This involved the tactical coordination of all aspects of electric and gas field operations including but not limited to employee relations, labor relations, public relations, construction management, oversight of safety programs; customer satisfaction programs; reliability infrastructure improvements; emergency response; and field engineering..

**New York State Electric & Gas Corporation (NYSEG)
2004**

1988 -

2000 – 2004 Division Operations Manager, Lancaster

I managed the day to day activities of 150 employees engaged in the design, engineering, and safe operation of electric transmission and distribution facilities, that served approximately 170,000 electric customers in western NY.

1993 – 2000 Supervising Field Engineer, Brewster Division

I Supervised 10 electric field planners engaged in the design and engineering of electric distribution systems.

1990 – 1993 Staff Engineer, Substations & Protection Engineering – Binghamton

Corporate

Under the direction of the corporate substations and protection engineering manager, I was responsible for the design and engineering of system protection schemes (relay packages & settings).

1988 – 1990 Key Account Manager, Market Services – Binghamton Division

In this role I managed account relationships for large commercial and industrial energy services customers.

EDUCATION/CERTIFICATIONS

MBA, Organizational Management - Syracuse University, Syracuse, NY - 2003

Bachelor of Science, Electrical Engineering- Penn State University, State College, PA - 1987

Licensed Professional Engineer – New York State

Judy A. Schroeder

178 Dunning Avenue, Auburn, New York 13021 • 315-730-2630 • jaschroeder@nyseg.com

SENIOR ELECTRIC T&D OPERATIONS PROFESSIONAL

PROFESSIONAL EXPERIENCE

Iberdrola USA Networks -New York State Electric & Gas Corporation

Director T&D Support and Electric TD Operations

Dec 2010 – Current

Provide leadership and management oversight for safe and reliable operational activities and personnel in electric T&D central zone for IUSA – 488,836 electric customers in 7 Divisions, approximately 310 employees.

- Area Command Deputy (ICS) for several major storm events, including Hurricane Irene, Tropical Storm Lee, Superstorm Sandy, October 2011 Nor'easter and other emergency response events.
- Initiated the Emergency Management Operating Council (EMOC) to provide cross functional direction and oversight for IUSA emergency preparedness.
- Key team member in identifying operational efficiencies through process improvements – scheduling, planning and consolidation opportunities of common tasks.
- Core team member of 2015 Management - Union Negotiations team.

Manager of T & D Support -IUSA

July 2010 – Dec 2010

- Business Transformation team leader and project manager – successfully lead the implementation of the single worker unit and first responder program to improve operational efficiencies within 100 days. Required close working relationships with the union leadership to successfully work through logistical implementation with members.
- Developed and implemented score card for evaluating contractor effectiveness and performance.

Director, Regional Operations

June 2005 – July 2010

Provide leadership and management oversight of a four division (two OpCo) region – 127,000 electric and 59,000 gas customer base and approximately 240 employees. Identify operational efficiencies within the region by leveraging synergies between OpCo's within the region.

- ICS core team member to implement, conduct and assess 2009 statewide electric storm drills for the first time under the Incident Command Structure (ICS) principles and concepts.
- Hiring Project team leader – in 2008 led statewide hiring initiative for recruiting 100 new craft apprentice positions. Worked collaboratively with the union leadership to resolve contractual hiring issues to maintain project schedule.
- Key core team lead member in the 2006 Binghamton Flood event involving restoration efforts impacting 5,300 gas customers.

Division Operations Manager

1999 – 2005

Manage the daily and long-range operational activities of a division serving 60, 000 electric and gas customers. Monitor and improve work processes to continually improve bottom line performance without compromising safety, reliability and customer service.

- Engaged IBEW union leadership in a collaborative win-win conflict resolution environment which resulted in a 75% reduction in filed grievances and led to the development of the first regional mutual gains agreement.

- Initiated IBEW sponsored peer-to-peer job site inspection process, which reduced safety violations by over 25%.
- Re-designed operations control center to improve workflow efficiencies and enhance coordination of resources for managing emergency responses.

Regional and Divisional Customer Service Manager***1993-1999***

Managed divisional and regional customer service activities for three division offices serving up to 165,000 customers. Established and maintained oversight of credit, collections, meter reading and billing processes while maintaining cost control within a 5 million dollar annual budget.

- Streamlined meter reading routes to optimize and improve efficiencies and reduce costs per meter read with key support from the IBEW.
- Successfully lead and coordinated public outreach efforts to soundly defeat referendum on condemnation proceedings of company owned assets worth over \$1 million dollars.
- Garnered public support to prevent hostile takeover attempt from a utility competitor (Cal Energy).
- Member of the emergency response team for the 1998 Northeast Ice Storm. Responsible for the logistics of crew accommodations for several hundred crews in multiple locations.

Key Account Manager, Satellite Office Manager***1990 - 1993***

- Developed marketing strategies to extend company expertise in providing energy and environmental services generating \$150,000 in new sales and incentives.
- Provide leadership and management of electric and gas customer service and operations of the Newark, NY office.
- Provided community outreach and relationship building with key legislative and county officials in the Wayne County area.

EDUCATION**MS In Management****B.S. Ag. Engineering Technology (w/Distinction)****ICS 100, 200, 300, 400, FEMA 700, 800****CEU – Advanced Negotiations****Nazareth College - 2003****Cornell University – 1983****Homeland Security/FEMA - 2007****University of Notre Dame – 2008*****AFFILIATIONS AND INTERESTS***

American Red Cross Board of Directors – Cayuga County
 Local Emergency Planning Chairperson, Cayuga County, NY
 Elks Club member, Auburn, NY
 Esquire, Elks Club, Auburn, NY
 Board of Directors, United Way of Wayne County
 Board of Directors, Newark Wayne Community Hospital

2006 - 2011
 2003 – 2007
 2002 - present
 2002 - 2003
 1993 - 1998
 1994 - 1997

New York State Electric & Gas Corporation
Incremental Maintenance - Electric
(\$000)

	Rate Year 1 TME 3/31/2017	Rate Year 2 TME 3/31/2018	Rate Year 3 TME 3/31/2019	Rate Year 4 TME 3/31/2020	Rate Year 5 TME 3/31/2021	Total
Electric T&D						
1 Steel Transmission Pole Inspection and Maintenance	\$ 441	\$ 882	\$ 882	\$ 882	\$ 882	\$ 3,969
2 Aluminum Base Insulator Replacement	1,000	1,000	1,000	1,000	1,000	5,000
3 Transmission Corridor Encroachment	205	413	413	413	413	1,857
4 WPIT Distribution to 10-yr cycle	1,050	2,100	2,100	2,100	2,100	9,450
5 Substation Transformer PCB Retrofills	110	295	245	184	262	1,096
6 Electric System Storm Susceptibility Assessment	75	125	500	500	500	1,700
7 Substation Facility Assessment (non-electric systems)	125	250	750	750	750	2,625
8 Total Electric T&D	\$ 3,006	\$ 5,065	\$ 5,890	\$ 5,829	\$ 5,907	\$ 25,697
Fossil Hydro						
9 Harris Lake Unit No. 2 Maintenance and Fuel	\$ 50	\$ 100	\$ 100	\$ 100	\$ 100	\$ 450
10 Harris Lake Unit No. 1 T-G Inspection and Maintenance	135	75	-	-	-	210
11 Mechanicville Headwater Benefits	17	35	35	35	35	158
12 Rainbow Falls Fishbypass, Rackraker and Rack Maintenance	12	15	15	15	15	72
13 Kents Falls Rackraker and Rack Maintenance	5	10	10	10	10	45
14 Mill C Rackraker and Rack Maintenance	-	-	-	-	10	10
15 Earthen Berm Maintenance	85	175	175	175	175	785
16 Hydro Plants Exterior Structure/Building Maintenance	125	250	250	250	250	1,125
17 Auburn T-G Inspection and Maintenance	100	100	-	-	-	200
18 Total Fossil Hydro	\$ 529	\$ 760	\$ 585	\$ 585	\$ 595	\$ 3,055
19 Total New Incremental Maintenance	\$ 3,535	\$ 5,825	\$ 6,475	\$ 6,415	\$ 6,502	\$ 28,751

Dollars in Thousands

O&M	TY	RY1	RY2	RY 3	RY 4	RY 5	RY AVG
NYSEG Physical	846	1,765	2,011	2,374	2,746	2,931	2,365
NYSEG Cyber	1,306	1,721	1,754	1,649	1,684	1,719	1,705
RG&E Physical	1,493	2,146	2,360	2,409	2,473	2,525	2,383
RG&E Cyber	688	908	925	870	888	907	900
	4,333	6,540	7,050	7,302	7,791	8,082	7,353
CAPITAL							
NYSEG Physical	4,030	10,054	14,680	10,604	11,416	6162	10,583
NYSEG Cyber	0	596	699	600	600	600	619
RG&E Physical	1,367	6,091	5,570	4,500	1063	1688	3,782
RG&E Cyber	0	298	350	300	300	300	310
	5,397	17,039	21,299	16,004	13,379	8,750	15,294

Physical includes Fire Protection

Forecast Development & Risks

Cyber Security

Iberdrola USA has, as part of its current continuous improvement model, implemented a comprehensive physical and logical cyber security program that addresses multiple externally and internally mandated security frameworks and best practices. The Cyber Security Framework is designed to protect such systems and networks from those cyber attacks that would act to modify, destroy, or compromise the integrity, confidentiality availability of data or software; deny access to systems, services, or data; and impact the operation of systems, networks, and equipment. Iberdrola USA-Networks Cyber Security Framework contains at minimum five (5) essential areas of security program management:

1. Organizational Framework for Cyber Security including details around the governance structure for the security program and provisions for incident response and emergency management;
2. Critical Cyber Infrastructure Asset Identification including using risk management best practices and asset management techniques to identify, account and protect;
3. Cyber Security Technology Needs Assessment and Procurement including budgeting techniques for acquiring technology, a strategic acquisition process and a software/system development life cycle;
4. Internal Audit including identifying the needs and frequency of performing internal audits to ensure the proper functioning of the cyber security program; and,
5. Cyber Security Personnel Staffing requirements to ensure that well trained and secure personnel are responsible for the operations and management of the security program.

Physical Security

In developing the Security Plan, security gaps and additional spend required to bring locations or asset classes up to standard was identified. Burns and McDonnell was retained to assist with this

effort. During the review process, the technical team reviewed sites for scope, schedule, and budget considerations. Burns & McDonnell reviewed the work breakdown sheet and backup information for locations requiring upgrades. Each component was analyzed utilizing experiences on similar projects and large scale linear projects to come up with project baseline budget. The model Burns & McDonnell developed for the IUSA Physical Security Program consisted of the following major components:

- A deterministic scope based cost estimate in current year dollars.
- A program schedule that defines the expected start and duration for each major component of the program as well as an estimated distribution around those values.

The following scope components were used to estimate the program budget:

Component	Unit of Measure (Installed)	Unit Cost
• DBU Readers & up to 8 inputs + 1 door hardware	Per Reader	\$7,500
• Fixed Cams	Per Camera	\$2,500
• FLIR 310 A PT-PTZ Cams	Per Camera	\$35,000
• Camera Pole Count		
o Cost Substation type pole	Per Pole	\$20,000
o Cost Building type pole	Per Pole	\$6,000
• NVRs/Analytics		
o Cost with software and configuration and license and servers	Per Location	\$26,000
• Indoor and outdoor PTZ Camera	Per Camera	\$3,900
• Equip. Rack, KVM, UPS	Per Location	\$14,000
• IT Switches & Panels with Install	Per Location	\$50,000
• OT Data Transport Hardware	Per Location	\$75,000
• OT Installation (Data Connectivity)	Per Mile	\$50,000
• Site Trenching - Linear foot of Conduit plus fiber installed		
o Cost per foot of Fiber Optic and Pipe (Substation)	Per Foot	\$46
o Cost per foot of Fiber Optic and Pipe (Building)	Per Foot	\$37
• Cost Substation type pole Foundation install	Per Pole	\$2,000
• Substation - Physical Security Protection enhancements to meet CIP 014 requirements	Per Foot	\$400
• Three year Operations & Maintenance (O&M)	Per Year / Per Location	\$15,500

The total number of site locations and the percent complete to date is depicted below. The Companies propose to complete all of the highest priority assets, starting first with critical infrastructure and then all occupied facilities by the end of 2020.

NYSEG - April 2015 - Physical Security Implementation Level

Risk Category		Access Control System Program Measures (Card Readers, Alarms & Lock&Key)				Video System Program Measures (Cameras & TIER 7 Surveillance Trailers)			
TIER	# of Locations	Completed Locations	Measures Count	Deployed Count	Complete %	Completed Locations	Measures Count	Deployed Count	Complete %
Gatehouse	11	0	198	0	0%	0	110	0	0%
Hydro	6	0	108	0	0%	1	50	0	0%
Occupied	55	20	1162	514	44%	10	514	62	12%
Oil Storage	0	0	0	0		0	0	0	
CIP Substation	18	17	219	201	92%	8	254	153	60%
Non-CIP Substation	700	700	700	700	100%	700	0	0	0%
Sec Trailer	13	13	0	0		3	13	3	23%
Grand Total	803	750	2387	1415	59%	722	941	218	23%

RGE - April 2015 - Physical Security Implementation Level

Risk Category		Access Control System Program Measures (Card Readers, Alarms & Lock&Key)				Video System Program Measures (Cameras & TIER 7 Surveillance Trailers)			
TIER	# of Locations	Completed Locations	Measures Count	Deployed Count	Complete %	Completed Locations	Measures Count	Deployed Count	Complete %
Gatehouse	3	0	54	0	0%	0	30	0	0%
Hydro	5	0	90	0	0%	4	34	24	71%
Occupied	23	19	508	418	82%	16	172	96	56%
Oil Storage	1	0	18	0	0%	1	3	3	100%
CIP Substation	9	4	166	76	46%	4	132	82	62%
Non-CIP Substation	166	166	166	166	100%	166	0	0	
Sec Trailer	13	13	0	0		3	13	3	23%
Grand Total	220	202	1002	660	66%	194	384	208	54%

As part of the process, Burns & McDonnell interviewed key stakeholders, IUSA Security staff, and applied industry knowledge to develop a risk model to estimate contingency, escalation and reserve for the Program. This risk analysis resulted in the development of a model that simulates the risks the Program will face throughout its life-cycle. Instead of having to select a point estimate for each variable, the model incorporated all known components of the program including the full range of its possible values and the likelihood of those possibilities. This model took into consideration allowances for both contingency and escalation expressed with a percentage probability and its associated cost impact.

The total number of site locations and the percent complete to date is sorted by risk tier level for each company is depicted below.

NYSEG Implementation by Risk Tier

NYSEG - April 2015 - Physical Security Implementation Level

Risk Category		Access Control System Program Measures (Card Readers, Alarms & Lock&Key)				Video System Program Measures (Cameras & TIER 7 Surveillance Trailers)			
TIER	# of Locations	Completed Locations	Measures Count	Deployed Count	Complete %	Completed Locations	Measures Count	Deployed Count	Complete %
TIER 1	3	3	24	24	100%	0	30	0	0%
TIER 2	28	16	441	225	51%	10	363	181	50%
TIER 3	29	14	745	457	61%	4	285	34	12%
TIER 4	25	1	438	6	1%	0	250	0	0%
TIER 5	2	0	36	0	0%	2	0	0	0%
TIER 6	703	703	703	703	100%	703	0	0	
TIER 7	13	13	0	0		3	13	3	23%
Total	803	750	2387	1415	59%	722	941	218	23%

Risk Category Key	Risk Treatment	Theft	Vandalism	Malicious Intent	Organized Attack	Terrorism (deterrent)
TIER 1	Fence perimeter hardening provides additional brute force protections plus Tier 2 event detection/response measures.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
TIER 2	Adds thermal camera to Tier 3. Enables nighttime video alarms at fence line.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
TIER 3	Adds video analytics to Tier 4. Enables daytime video alarms at the fence perimeter. Enables alarming before breach occurs thereby improving chance of apprehending attacker.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
TIER 4	Adds SOC controlled video capability to Tier 5. Enables timely daytime video response to Tier 5 alarms and minimizes time delays associated with site visit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
TIER 5	Adds card access to secure door or fence. Enables security event detection (alarms) and Guard site visit response.	<input checked="" type="checkbox"/>				
TIER 6	Fence or door secured by Lock & Key-response only possible after incident reported. Forensic process ensues reported event.	<input checked="" type="checkbox"/>				
TIER 7	Temporarily adds video recording and lighting trailer at troubled sites. Forensics process ensues event.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			

RG&E Implementation by Risk Tier

RGE - April 2015 - Physical Security Implementation Level

Risk Category		Access Control System Program Measures (Card Readers, Alarms & Lock&Key)				Video System Program Measures (Cameras & TIER 7 Surveillance Trailers)			
TIER	# of Locations	Completed Locations	Measures Count	Deployed Count	Complete %	Completed Locations	Measures Count	Deployed Count	Complete %
TIER 1	3	2	51	33	65%	2	55	45	82%
TIER 2	8	2	151	43	28%	2	97	37	38%
TIER 3	20	12	538	394	73%	16	163	119	73%
TIER 4	6	4	75	21	28%	2	46	4	9%
TIER 5	1	0	18	0	0%	0	10	0	0%
TIER 6	169	169	169	169	100%	169	0	0	
TIER 7	13	13	0	0		3	13	3	23%
Total	220	202	1002	660	66%	194	384	208	54%

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NYSEG O&M Estimate for Bright Line Compliance

Standard Group	2015	2016	2017	2018	2019	2020
BAL Resource and Demand Balancing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CIP Critical Infrastructure Protection	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
COM Communications	\$ 226,687	\$ 226,687	\$ 197,531	\$ 197,531	\$ 197,531	\$ 197,531
EOP Emergency Preparedness and Operations	\$ 273,808	\$ 273,808	\$ 238,591	\$ 238,591	\$ 238,591	\$ 238,591
FAC Facilities Design, Connections, and Maintenance	\$ 15,146	\$ 15,146	\$ 13,198	\$ 13,198	\$ 13,198	\$ 13,198
INT Interchange Scheduling and Coordination	\$ 1,683	\$ 1,683	\$ 1,466	\$ 1,466	\$ 1,466	\$ 1,466
IRO Interconnection Reliability Operations and Coordination	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
MOD Modeling, Data, and Analysis	\$ 8,415	\$ 8,415	\$ 7,332	\$ 7,332	\$ 7,332	\$ 7,332
NUC Nuclear	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PER Personnel Performance, Training, and Qualifications	\$ 290,637	\$ 290,637	\$ 253,256	\$ 253,256	\$ 253,256	\$ 253,256
PRC Protection and Control	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000
TOP Transmission Operations	\$ 349,875	\$ 349,875	\$ 304,875	\$ 304,875	\$ 304,875	\$ 304,875
TPL Transmission Planning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PRC Substation Maintenance	\$ 127,000	\$ 127,000	\$ 127,000	\$ 127,000	\$ 127,000	\$ 127,000
VAR Voltage and Reactive	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Yearly O&M:	\$ 1,488,250	\$ 1,488,250	\$ 1,338,250	\$ 1,338,250	\$ 1,338,250	\$ 1,338,250

RG&E O&M Estimate for Bright Line Compliance

Standard Group		2015	2016	2017	2018	2019	2020
BAL	Resource and Demand Balancing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CIP	Critical Infrastructure Protection	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000
COM	Communications	\$ 75,562	\$ 75,562	\$ 65,844	\$ 65,844	\$ 65,844	\$ 65,844
EOP	Emergency Preparedness and Operations	\$ 91,269	\$ 91,269	\$ 79,530	\$ 79,530	\$ 79,530	\$ 79,530
FAC	Facilities Design, Connections, and Maintenance	\$ 5,049	\$ 5,049	\$ 4,399	\$ 4,399	\$ 4,399	\$ 4,399
INT	Interchange Scheduling and Coordination	\$ 561	\$ 561	\$ 489	\$ 489	\$ 489	\$ 489
IRO	Interconnection Reliability Operations and Coordination	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
MOD	Modeling, Data, and Analysis	\$ 2,805	\$ 2,805	\$ 2,444	\$ 2,444	\$ 2,444	\$ 2,444
NUC	Nuclear	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PER	Personnel Performance, Training, and Qualifications	\$ 96,879	\$ 96,879	\$ 84,419	\$ 84,419	\$ 84,419	\$ 84,419
PRC	Protection and Control	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000	\$ 95,000
TOP	Transmission Operations	\$ 116,625	\$ 116,625	\$ 101,625	\$ 101,625	\$ 101,625	\$ 101,625
TPL	Transmission Planning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PRC	Substation Maintenance	\$ 86,000	\$ 86,000	\$ 86,000	\$ 86,000	\$ 86,000	\$ 86,000
VAR	Voltage and Reactive	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Yearly O&M:		\$ 639,750	\$ 639,750	\$ 589,750	\$ 589,750	\$ 589,750	\$ 589,750

INDEX OF WORKPAPERS SUPPORTING ELECTRIC RELIABILITY AND OPERATIONS PANEL						
Exhibit Reference	Description of Exhibit	No. of WP	Title of Workpaper (or WP) File	Content of Workpaper	WP Format	Trade Secret
EROP-2	Incremental O&M Costs	2	<ul style="list-style-type: none"> • NE-RRP-2-WP-02 Incremental Maintenance 	<ul style="list-style-type: none"> • Calculation of cost of Incremental Maintenance programs at NYSEG Electric 	.pdf	No
			<ul style="list-style-type: none"> • RE-RRP-2-WP-02 Incremental Maintenance 	<ul style="list-style-type: none"> • Calculation of cost of Incremental Maintenance programs at RG&E Electric 	.pdf	No
EROP-3	Security Plan Costs	1	<ul style="list-style-type: none"> • Security Worksheet 4-29-15 	<ul style="list-style-type: none"> • Provides break down of O&M and Capital costs of security plan 	.docx	Yes
EROP-4	Bright Line Compliance O&M Costs	1	<ul style="list-style-type: none"> • 2015-05-16 NY Brightline O&M Estimate 	<ul style="list-style-type: none"> • Provides O&M costs required for Bright Line compliance by group 	.xls	No