

CITIES OF ROCKLAND, SOUTH PORTLAND, BIDDEFORD, AND THE TOWN OF FALMOUTH

RFQ – STREETLIGHTS

FEBRUARY 19, 2016



TABLE OF CONTENTS

A. COVER LETTER	2
B. COMPANY PROFILE	4
COMPANY HISTORY	4
SIMILAR PROJECTS AND SUCCESSES	4
UNIQUE TECHNOLOGIES	5
COMPANY PURPOSE / MISSION.....	6
C. KEY PERSONNEL	6
D. REFERENCES	8
E. APPROACH	10
1. AUDIT REPORTS	10
2. FINANCIAL STABILITY	12
3. DESIGN	13
4. PROJECT MANAGEMENT.....	16
5. TECHNOLOGY PROCUREMENT	18
6. INSTALLATION AND MAINTENANCE	20
7. ACQUISITION OF STREETLIGHTS.....	23
8. INCENTIVES AND REBATES.....	23
F. VALUE ADDED SERVICES	24
LUX MAPPING™	24
REVENUE-GENERATION POSSIBILITIES	24
G. PROJECT SCHEDULE.....	24
APPENDIX A—STAFF RESUMES	25
APPENDIX B—MASTER PROJECT LIST	35
APPENDIX C: INSTALLATION GANTT CHART	42

<p>Contact Person: Paul Vesel, Director, Business Development, North Eastern USA pvesel@realtermenergy.com 413-695-0045</p>
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A. COVER LETTER

February 19, 2016

Mr. Nathan Poore
Town Manager
271 Falmouth Road
Falmouth, ME 04105

Dear Mr. Poore,

RealTerm Energy is pleased to provide a response to your Request for Qualification for the complete turn-key LED streetlight conversion of the participating municipalities (PM) which include the Cities of Rockland, South Portland and Biddeford, and the Town of Falmouth. This proposal describes in detail the services to be provided to the PM to ensure the successful execution of the project.

Our understanding of the PM's objectives is the following:

- Provide a complete turn-key conversion of community streetlight systems to LED fixtures which will include the following:
 - GIS data collection; photometric design of each unique street (to RP 8-14 standards); fixture procurement; installation and project management; billing changes
- Produce a detailed Investment Grade Audit (IGA) report to include:
 - Exact inventory of fixtures; photometry; GHG calculation; cost savings analysis; payback period; return on investment; installer selection
- Complete all applicable incentive and rebate applications on behalf of the PM;
- Ensure the proper and safe recycling/disposal of all waste material;
- Identify available Financing Options

Given our proven track record, with over 149 similar LED conversion projects, RealTerm Energy is highly capable and qualified to perform the scope of services that the PM have requested. RealTerm Energy has all the necessary resources, qualifications and experience to complete this project on time and on budget with values that are aligned with those of the PM.

On the behalf of RealTerm Energy, we are looking forward to building a partnership with the PM.



Sean Neely, President
sneely@realtermenergy.com

B. COMPANY PROFILE

COMPANY HISTORY

RealTerm Energy

RealTerm Energy is a division of RealTerm Global, created to deliver cost-effective and energy-efficient LED street lighting solutions to cities and municipalities. RealTerm Energy US is headquartered in Annapolis, MD with offices in New York City, Chicago and Montreal. Our team consists of 45 people dedicated exclusively to LED streetlight conversions, including a complete GIS department, headed by a geospatial engineer; three full time lighting engineers; a project management and engineering team; and a dedicated client services team to take care of the specific needs of the PM. This ensures the PM will receive exceptional professional service from the awarding of the contract through to the final inspection and commissioning.

RealTerm Global

RealTerm Global is an international airport real estate operator and leader in real asset and infrastructure strategies, with installations in North America, Europe, and Asia. Founded in 1991, RealTerm Global has since grown steadily, currently managing over \$3 billion in assets.

SIMILAR PROJECTS AND SUCCESSES

Two major North American municipal associations have selected RealTerm Energy as a preferred provider of LED street lighting services: Ontario's Local Authority Services (LAS) and the Connecticut Conference of Municipalities (CCM). Similarly, the Metropolitan Area Planning Commission (MAPC) of Massachusetts has partnered with RealTerm Energy in their street lighting conversion program. The City of Brockton, MA recently selected us for a turn-key project valued at \$3.7M to convert its 8,761 streetlights to LED fixtures through the MAPC program. The table below provides an overview of all our past and current LED street lighting projects, valued in excess of \$64M.

Phase	Projects	Streetlights
Completed	111	84,031
Installation phase	28	34,392
Audit and Design phase	10	39,014
Total	149	157,437

Local Experience

RealTerm Energy's team member and local coordinator, George Woodbury, is one of the Northeast's most experienced specialists in streetlight acquisition, having worked since 2004 with the states of

Maine, Massachusetts and Rhode Island in drafting their streetlight acquisition legislation. He has served as an expert witness in the hearings and participated in negotiations with the various utility companies. As a result, he is thoroughly familiar with the relevant local legislation and all of the ongoing actions before the Public Service Commission.

George recently completed a joint procurement of an LED conversion project on behalf of Arlington and Watertown in Massachusetts, the first such joint LED conversion project in the State. Additionally, the RFP designed by the project team became the model currently used by MAPC. He has also worked in partnership with the Washington County Regional Planning Council to put into place the Program for Rhode Island Streetlight Management that now has twenty-five member communities involved in a joint procurement process.

The PM will benefit from his extensive experience and knowledge regarding local legislation, standards, and incentives and rebates. He will focus his attention on streetlight acquisition, incentive and rebate applications and local financing options.

Please find below four of the 85 street lighting projects in New England that George has led. The complete list of George's streetlight conversion projects in Appendix B, pages 40-41.

TOWN OF ARLINGTON, MA

Scope:	Complete LED turn-key streetlight conversion.
Number of fixtures:	2,079

TOWN OF FAIRHAVEN, MA

Scope:	Complete LED turn-key streetlight conversion.
Number of fixtures:	1,415

TOWN OF WESTWOOD , MA

Scope :	Complete LED turn-key streetlight conversion.
Number of fixtures:	1,116

TOWN OF WATERTOWN, MA

Scope:	Complete LED turn-key streetlight conversion.
Number of fixtures:	1,036

UNIQUE TECHNOLOGIES

Please refer to page 10 Section E1: Audit Reports – GIS Audit Report, page 14 Section E.3: Design – LUX Mapping™ and page 19 Section E5: Smart Controls and other Smart City Solutions to view the descriptions of the numerous unique technologies that RealTerm Energy will provide to the PM.

COMPANY PURPOSE / MISSION

RealTerm Energy's mission is to deliver future-proof "Smart City" solutions that allow forward-thinking communities to reduce energy costs, improve the quality of life of citizens, and protect the environment. Building on RealTerm Global's expertise as a leader in logistics infrastructure, RealTerm Energy delivers best-in-class technological, financial and managerial solutions for efficient energy-related projects to municipalities and public authorities.

RealTerm Energy's primary focus is on the implementation, financing and management of municipal LED Street lighting and adaptive technology control systems. Our LED street lighting design is based on the latest ANSI/IES RP-8-2014 standards and our adaptive technology control systems deliver unmatched energy and maintenance savings to our clients.

RealTerm Energy's solution for municipal LED street lighting provides numerous benefits to municipalities and public authorities, notably: reduced energy consumption; reduced life cycle costs; intelligent system monitoring; improved dependability; safety and performance; and zero up-front capital investment of public funds.

C. KEY PERSONNEL

Our team is highly experienced with providing expert turn-key LED streetlight conversion services. The key personnel involved in this project have been specifically chosen in order to ensure the PM will receive exceptional service from RealTerm Energy's most experienced and qualified employees. Please refer to Appendix A for the complete resumes of our key personnel.



PAUL VESEL – DIRECTOR, BUSINESS DEVELOPMENT – NE USA

From project inception to completion, Paul manages all aspects of business development in Northeastern United States. He brings more than 25 years of experience in energy and telecommunications infrastructure development. As Director of Business Development for ACSI Network technologies, Paul was part of a team that deployed 35 metropolitan area fiber optic networks in cities across the U.S. Paul is currently working with municipalities to develop streetlight projects throughout the northeastern United States.



GEORGE A. WOODBURY – LIGHT ACQUISITION, INCENTIVES AND REBATES

Since 2001, George has assisted over 80 communities with the acquisition of their streetlights. He has completed streetlight upgrades in over 80 New England municipalities comprising over 100,000 lights and has saved these communities in excess of \$20 million annually. He has worked with communities for over 16 years as a consultant on street lighting matters. George was Director of Public Works in Lexington, MA for over seven years and also served as Master Planner for another five years. As a result, he brings a unique blend of local municipal experience along with street lighting expertise to the team.



CHAD SPANNAUS – DIRECTOR OF OPERATIONS

Chad is responsible for overseeing all operations and the seamless execution of our projects. He maximizes organizational effectiveness, ensures efficiency and provides people-oriented guidance that yields productivity. In his previous position as Executive VP Client and Support Services at Quadriga Art in New York, he was responsible for organizational reengineering, process improvement and customer experience. His experience will be extremely valuable in ensuring the project is successfully completed.



DAN KIRKBY – GIS ENGINEERING MANAGER

Dan manages our Geospatial Information Systems (GIS), as well as the development of RealTerm's GIS-enabled Smart City management tools for local municipalities. He also created our custom application that monitors Smart City connectivity. Attention to detail and engineering expertise make Dan an invaluable member of this project. Dan developed his background in geospatial project engineering while serving in the Canadian Army.



EVERTON CROSARA – LIGHTING DESIGN MANAGER

Everton has designed over 80,000 streetlights (both cobra head and a wide range of decorative fixtures) across more than 100 projects since joining RealTerm Energy. His extensive knowledge of street lighting design and expertise in electrical distribution systems will enable him to design the project for maximized energy efficiency and reduced costs. He draws on his 20 years of project planning and management experience both in Brazil and North America overseeing the construction and maintenance of systems with over 211,000 streetlights, accent lighting, power-line distribution, transmission and energy efficiency.



CSABA DEMZSE – SENIOR ENERGY EFFICIENCY ENGINEER

Csaba is one of a handful of energy efficiency experts in the world at his level. Along with his expertise, Csaba will apply a tenacious focus to draw the greatest efficiencies from the project as he calculates operation and maintenance cost and energy savings. He brings to our team more than 20 years of experience in energy analysis and project management in North America and across Europe in the energy services industry.



MICHAEL MILLER – SENIOR PROJECT INSTALLATION MANAGER

Michael manages the team of installation supervisors for all of RealTerm Energy's projects. His inventiveness, tremendous breadth of experience and skill at working with people give him the tools needed to ensure the project will be properly executed, as all of the inevitable challenges are faced, understood and solved. He has been involved, either directly or through his team of on-site supervisors, in every one of RealTerm Energy's projects, comprising more than 145 different installation projects for over 110,000 luminaires. He will be an invaluable resource to the various regulatory bodies and incentive providers who are seeking to ensure the proper functioning of streetlight systems.



MARIA REGUNAGA – MARKETING MANAGER

Maria is responsible for all marketing and communications at RealTerm Energy. She brings more than 12 years' experience implementing and managing a broad range of marketing communications projects for corporations, not-for-profit organizations and tourism associations in Canada and internationally. Maria has experience with multiple renowned media outlets resulting in important media coverage for her clients. Maria will ensure that members of the PM and relevant media outlets will receive all the necessary project information.



CJ BOGUSZEWSKI - VP – SMARTCITY SOLUTIONS

CJ's main responsibility is to develop and commercialize RealTerm Energy's offerings for adaptive controls and SmartCity applications, in partnership with RealTerm Energy's clients and technology providers. CJ has extensive knowledge of streetlight technologies and Smart City Controls. Previously, over his 25-year career, he has worked in a range of well-known software and telecommunications companies, including Oracle, Vodafone, CIBER, and most recently Silver Spring Networks, where he was the global commercial lead for its Internet of Things line-of-business. He also sits in advisory and board roles for several start-up companies in Silicon Valley, California.

D. REFERENCES

We have selected the following three (3) projects where RealTerm Energy completed full turn-key LED streetlight retrofit conversions. These projects are comparable in scope and size to the project proposed by the PM. We invite the PM to contact these municipalities and enquire about the services they received from RealTerm Energy. Please find our complete master project list in Appendix B.

MINTO, ONTARIO

Scope: Complete turn-key LED streetlight conversion including an IGA

Project value: \$427,000

Number of fixtures: 822

Reduction in energy consumption: 66%

Decrease in maintenance costs: 80%

Contact information: Bill White, CAO/Clerk, Town of Minto, Ontario, Canada
519-338-2511, Ext. 222
bwhite@town.minto.on.ca

RANDOLPH/FITCHBURG/LINCOLN, MASSACHUSETTS

Scope: Complete turn-key LED streetlight conversion for three (3) PM including an IGA

Project value: \$2.0M

Number of fixtures: 6,047 – Randolph: 2,710; Fitchburg: 3,108; Lincoln: 229

Reduction in energy consumption: 64%

Decrease in maintenance costs: 61%

Contact information: William Repoff, Director of Operations, Public Works
Randolph, Massachusetts, USA
781-961-0940
wrepoff@randolph-ma.gov

BARRIE, ONTARIO

Scope: Complete turn-key LED streetlight conversion including an IGA. Project installed in 57 working days.

Project value: \$4.75M

Number of fixtures: 10,660

Reduction in energy consumption: 65.8%

Decrease in maintenance costs: 80%

Contact information: Barry Thompson, Manager of Energy Management, City of
Barrie, Ontario, Canada
705-739-4220 Ext. 4557
barry.thompson@barrie.ca

E. APPROACH

Our approach includes a nine-step turn-key solution that is fundamental to achieving the most efficient LED conversion, with the highest degree of energy savings and the greatest assurance of safe light levels. Our experience in designing and implementing turn-key LED streetlight conversion projects has given our team of streetlight specialists the experience and knowledge required to achieve trouble-free projects, delivering the levels of safety, comfort and savings that the PM desire.



1. AUDIT REPORTS

To design and install the most efficient LED street lighting system possible, it is vital to begin with the most accurate and pertinent data and to constantly update this data throughout the process of delivering the project. RealTerm Energy will collect all the necessary data in the most efficient and flexible way, so as to avoid delays and also to ensure transparency by effectively sharing information with all stakeholders.

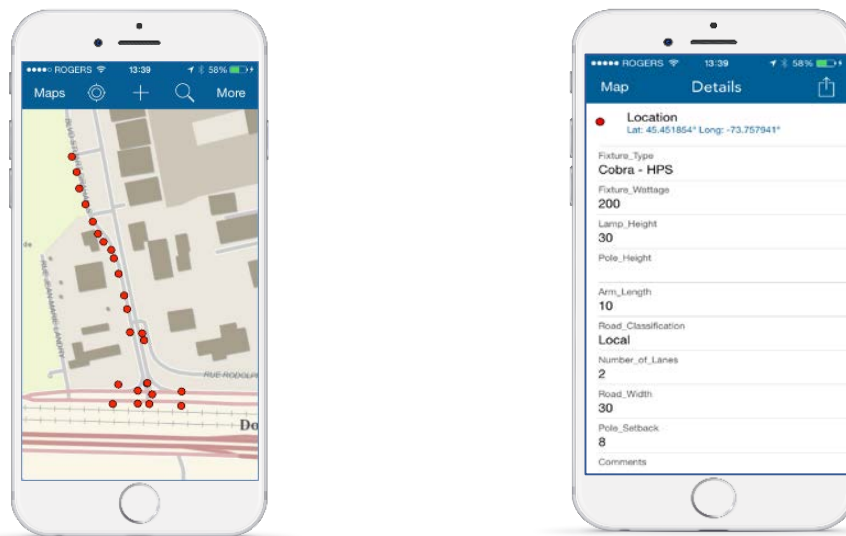
Geographic Information Systems (GIS) Inventory Audit

RealTerm Energy collects all the necessary GIS data internally. We have full time field surveying specialists and have developed a proprietary GIS-based surveying process using a customized mobile street lighting survey application (app) which integrates directly with the standard Esri ArcMap software. RealTerm Energy is the only turn-key provider using this technology. The real-time Installation-Tracking app can be deployed by our technical experts and/or local surveyors whom we recruit, train and inspect. Compatible with virtually any smart phone, our scalable approach allows us to accelerate data collection, shorten the project timelines and increase life-cycle savings. We can easily customize our data collection to include virtually any kind of information desired by the municipality. The PM staff will be given login access to all systems during the audit, design and installation to ensure full transparency throughout the project.

Key data to be verified and/or collected will include:

- Pole location and unique ID (tag/number)
- Offset of pole
- Pole type (steel, aluminum, wood)
- Pole condition
- Arm length
- Fixture type, wattage and mounting height
- Wire location
- Road width and classification
- Number of traffic lanes
- Decorative data (pole color, photocell).

The graphic above provides a sample of the data that can be collected using RealTerm Energy's customized mobile street lighting survey app.



Our survey data can be easily accessed online by all authorized users, including project team members, the PM officials and other key stakeholders, without the need for specialized equipment or expensive software licenses. Given that our surveying process can be monitored on-line and is updated in real-time, we can review and respond to issues with the PM immediately, avoiding the need for costly secondary or tertiary surveys that can result in major project delays.

To ensure data quality and accuracy, our surveying process cross-references the data collected against existing municipal geospatial data so that we obtain the highest level of geospatial accuracy.

Our surveying process has often revealed gaps and errors in existing municipal inventory data. By making all necessary corrections to the inventory early in the process, we are able to optimize both energy savings and street lighting performance during the design and installation phases. We are also able to avoid the significant costs that are incurred and the delays that result from having to correct inaccurate fixture and/or quantity orders.

DELIVERABLES:

- Highly accurate calculation of streetlight inventory via GIS data
- Customized data measurements to include virtually any kind of information desired by the PM

- Ability to review and respond to issues with the PM immediately, due to RealTerm Energy's customized mobile street lighting survey app
- Use of common GIS software (Esri ArcMap)

Investment Grade Audit (IGA) Report

RealTerm Energy will create an IGA report for each municipality's existing streetlight network. Our industry pioneering audit report will provide each PM with a complete analysis of their current streetlight infrastructure and will produce accurately-estimated post-retrofit measurements. Because our design work will draw on our expertise with many major manufacturers, our IGA report will propose luminaires which are the best performing for your conversion project. This will ensure that each project is the most competitive available to the PM.

The IGA report will include:

- Deficiencies in the current street lighting network
- Baseline energy use, energy cost and operations and maintenance costs
- Recommended fixture type and wattage for each location
- Estimated retrofit energy use and operations and maintenance costs
- Estimated sources of funding including rebates/incentives
- Calculation of estimated total conversion cost, energy reduction, and payback period
- Calculation of Green House Gas (GHG) reduction

DELIVERABLES:

- A detailed and accurate IGA report suitable for arranging financing

2. FINANCIAL STABILITY

RealTerm Energy has provided Energy Savings Performance Contracts (ESPCs) directly for 13 of our municipal LED upgrade projects. As a division of RealTerm Global, a multi-billion-dollar infrastructure management and financing company, RealTerm Energy's access to capital markets ensures that our municipal partners receive the most competitive financing terms available.

Basic components of the ESPC:

- RealTerm Energy finances 100% of the project costs
- RealTerm maintains the streetlight lights for a period of 10 years
- The municipality and RealTerm Energy jointly share in the energy and maintenance savings
- The operating risks are transferred to RealTerm Energy
- There are guaranteed energy and maintenance savings throughout the term

Should the PM choose to proceed to ESPC financing, RealTerm Energy will pay 100% of project costs. The municipality and RealTerm will jointly share in the energy and maintenance savings, with a portion of the savings being used to pay back the initial cost of the project. During the 10 year period of an ESPC contract, RealTerm Energy will maintain the streetlights. Operating risks are transferred to RealTerm and the PM is guaranteed energy and maintenance savings throughout the term. Asset ownership remains with the municipalities.

LEASE FINANCING

Several municipalities have opted for lease financing for their LED upgrades. We have a great deal of experience in structuring this financing option. We routinely deal with up to nine different companies for tax-exempt lease financing. These include Bank of America, Wells Fargo, Bank North, Municipal Services Group, Pinnacle Public Finance, CalFirst Bank, US Bank, and Green World Finance Group. Recently, we secured \$13M in lease financing for the City of Providence for their LED conversion and \$335,000 for the Town of Canton. We also secured financing for both Fitchburg and Randolph this past year at just over \$1M each. We will issue a tender for financing, providing the project costs and savings figures. We review the received quotes and share them with the community. All quotes are indexed to protect the community. Once a lease company is identified we will assist with the document preparation and any other requirements the Awarding Authority may require.

DELIVERABLES:

- Competitively priced ESPC
- Lease Financing option

3. DESIGN

LED Network Design

RealTerm Energy's in-house design team uses our GIS-based inventory survey data to create photometric design plans that deliver the maximum levels of safety, lighting quality and energy savings possible for the PM. Our design team, which consists of three (3) experienced full-time LED street lighting designers, includes certified professional engineers and members of the Illuminating Engineering Society (IES). Our designs follow the RP-8-2014 Roadway Lighting recommendation produced by the IES. Furthermore, our designs are in line with LEED-ND (Neighborhood Development) and specifically with GIB Credit 17—Light Pollution Reduction. This team has the capability to create designs for more than 2,000 cobra head fixtures per day.

Our design process begins by identifying patterns in the street lighting system and finding priority areas sharing similar roadway categories, streetlight spacing, pole heights, pedestrian traffic, etc. After identifying such patterns and establishing your priorities, our design team creates street-by-street designs using state-of-the-art AGi32 software. This delivers the most efficient, safe and comfortable result, achieving the RP-8-2014 standard wherever possible and eliminating undesirable situations where the roadway is over lit.

Our designers also address specific municipal concerns, taking into account unique regional characteristics including neighborhoods, schools, hospitals and areas with higher levels of street crime, accidents, and/or vehicle-bicycle-pedestrian conflicts.

Based on our extensive knowledge of available products and possible settings, our team seeks to take advantage of the adjustable wattages and light distribution patterns available in the LED industry today. Our designers typically consider 15-20 possible settings for each fixture when creating a photometric street lighting design. Once the entire design process is complete a map is created which identifies precisely which LED fixture is to be installed at each specific location.

Most competitors will only consider a limited number of "road typicals", thus bypassing the full photometric design process. Virtually all the streetlights converted to LED by RealTerm Energy are

based on our team's custom designs, allowing us to maximize the benefits of LED fixture settings and adjust for specific roadway variations. This optimizes savings, safety and comfort. Through our combination of accurate GIS surveys and custom photometric design, we are achieving overall savings in energy close to 65%. Our extensive design process delivers the highest possible savings to the PM, yet still ensures that the light levels achieve the recommended values wherever that is physically possible.

DELIVERABLES:

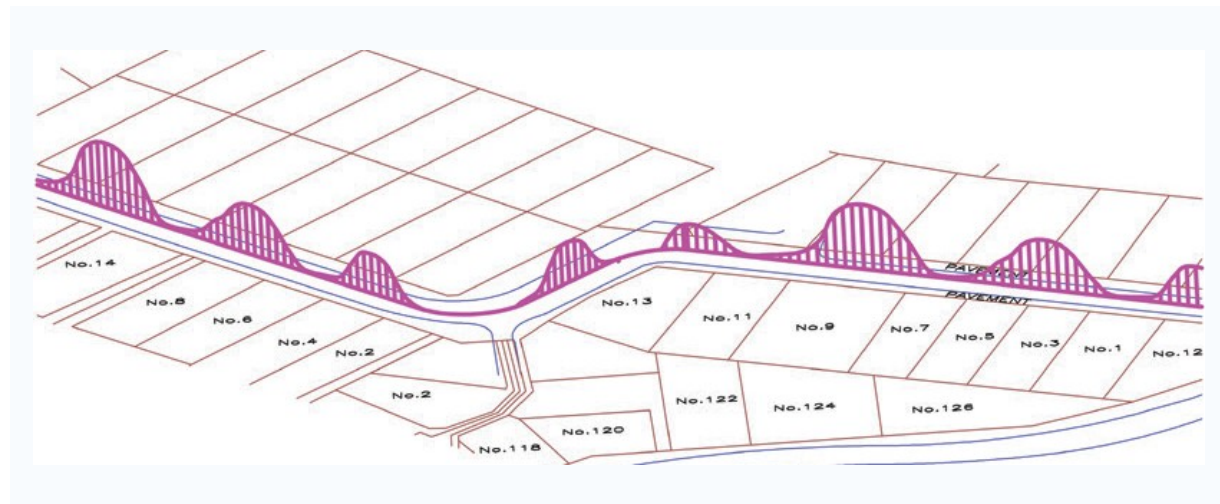
- Accurate street-by-street designs which have considered all the relevant local safety factors, RP-8-2014 recommendations, and the characteristics of available fixtures in order to maximize energy savings over the lifetime of the streetlight system

LUX Mapping™

A complete conversion to LED should take into consideration areas which are over-lit or under-lit. RealTerm Energy now offers the most effective way to identify these critical areas : our exclusive GPS Vehicle Lux Mapping™ Surveying Technology.

Lux Mapping™ consists of a vehicle-mounted system (no special vehicle required) that allows lux levels (amount of lumens per square foot, or foot candles) to be measured and recorded at normal road speed limits, making it suitable for all types of applications. The road is surveyed with the vehicle working with existing traffic flows without any impediment to other traffic. In contrast to traditional inspection methods, the Lux Mapping™ methodology gives an accurate and rapid performance measurement of each light unit at night, highlighting issues and areas requiring detailed examination. This unique surveying technology can conduct light level measurements before and after the LED conversion project.

The graphic below represents the rise and fall of LUX levels along a given route.



The next graphic displays the unsatisfactory light levels (red lines) and satisfactory light levels (green lines), given the lighting category of the selected roadway.



SYSTEM FEATURES

The Lux Mapping™ data maps can be integrated into each municipality's GIS applications, providing the PM with an additional method to manage their street lighting fixtures.

Lux Mapping™ is a quality tool that allows for quick identification of:

- Lighting deficiencies, sufficiencies and priorities
- Lighting improvements, before and after LED conversion
- Lighting as a safety factor by comparing traffic accident data, crime data and lux levels

Once all the GIS information and lux data is collected and mapped into Google Earth, it can be layered on top of the field audit measurements that were collected. RealTerm's lighting planners can then determine any correlations between night-time crime, roadway accidents and poor or non-existent lighting levels. Please find below an image of our Lux Mapping™ measurements layered into Google Earth.



DELIVERABLES:

- Provide light level measurements before and after the completed turn-key LED conversion project
- Determine lighting deficiencies, sufficiencies and priorities
- Assess lighting performance in areas of concern such as intersections, road curves, crash spots and public facilities

4. PROJECT MANAGEMENT

Experience and Qualifications

RealTerm Energy's Project Team possesses extensive experience with complete turn-key LED conversion projects and is highly qualified to successfully complete the project proposed by the PM. As of this writing, RealTerm Energy has contracted with 149 municipalities for LED street lighting projects, totaling over 157,000 light installations. Conversion projects have ranged from 13 fixtures to over 10,000 fixtures in urban, suburban and rural municipalities. RealTerm Energy has demonstrated its ability to effectively manage and complete numerous turn-key LED conversion projects simultaneously for multiple municipalities in wide-spread locations. The Project Team has proven experience adapting its services to each of its municipalities' unique streetlight infrastructure requirements, standards and legislation. During the fourth quarter of 2015, our project management team was overseeing 64 installation subcontractors on 35 separate projects. All projects were completed on time and within budget.

DELIVERABLES:

- Simultaneous oversight and delivery of the complete turn-key LED conversion projects for the 4 municipalities involved

Methodology

Our 9-step approach covers all aspects of the proposed project and will allow our Project Team to properly control the scope, quality, schedule and cost of the project from start to finish. Our real-time Installation Tracking app described on page 10 Section E1 Audit Reports – GIS Inventory Report will monitor and ensure project performance, coordination and completion.

Traffic Management Plan

Traffic management is an important part of a safe and efficient LED conversion. We will work with the PM officials and all other relevant local authorities in the development, approval and management of a Traffic Management Plan prior to and during the installation period in order to properly respond to local conditions. RealTerm Energy will coordinate traffic management with the installation contractors and will keep the necessary authorities informed of our activities, as well as liaise with the PM on any concerns or issues relating to traffic management. Our previous experience has shown that we will be able to maintain a safe working area by implementing a well thought-out Traffic Management Plan. We are proud of our safety record after installing over 157,000 fixtures and will continue to be diligent to maintain our current safety performance.

DELIVERABLES:

- A coordinated Traffic Management Plan with full buy-in from all groups involved
- Required from The PM:
- The PM's schedule of upcoming events, road closures and road construction
- Timely input concerning our proposed schedule
- Prioritization of sections for deployment of LED streetlights

Media and Community Relations

Communication with residents and stakeholders is critical for the roll out of a conversion project. It is important to meet with the public to explain the project and its benefits and to answer any questions they may have. RealTerm Energy has experience with this kind of public meeting and will make staff available to build positive relationships with residents and stakeholders from the very start.

Once the installation has been scheduled, RealTerm Energy will issue press releases to all relevant PM media outlets, including the Courier-Gazette, the Portland Press Herald, the Journal Tribune, the Falmouth Forecaster and others. Our goal will be to inform the public of the start of this work, and if the PM staff consider it helpful, we will make an updated schedule and map available for publication on the municipal website.

We recommend hosting a one-day public information session, or open house, where residents can obtain information on the project and ask questions. We have found on similar projects that many problems are avoided when they are addressed prior to starting the implementation. RealTerm Energy will have staff available for this public information session.

During installation, our project management team will answer any complaints by residents directly within 48 hours. Complaints cannot be left unanswered. We have found that by communicating directly with the resident who has a concern and addressing the situation we are able to find a workable solution to most problems.

DELIVERABLES:

- Press releases customized to this project and your communication objectives, highlighting the local staffing and local businesses being employed
- Frequently Asked Questions handouts for media and the municipal websites
- Public information, including contact points for reporting concerns, problems and complaints
- Agenda and structure for a public information session, ready to be adapted to your municipal context and branding
- Content for press releases, website updates, etc.

Change Order Management

Through this whole process, new needs may be identified which the PM would like RealTerm Energy to handle. We have a standard process for handling this through Change Orders and we will be glad to work with the PM staff to personalize this process to their needs. The change orders are logged and tracked electronically through RealTerm's software. The PM receives confirmations of change orders and a consolidation is done at final billing.

Risks and Assumptions

Every project has risks and our role as your turn-key provider is to mitigate these risks. Our experience gained through our previous 149 conversion projects has provided invaluable knowledge which we will use to benefit the PM.

We believe the most significant potential risk relates to the cooperation of Central Maine Power (CMP) and their possible role in the project. In particular, there is the risk which is linked to the current condition of the street lighting infrastructure in the PM. This can be partially mitigated by taking

advantage of the utility's willingness to remove equipment over fifteen years old at no cost to the PM. RealTerm will work with the PM to negotiate with CMP to have them remove the old equipment; then we would install a new mast arm and LED fixture with fuse, ready for CMP to remake the connection.

Other factors such as weather and unforeseen conditions could impact the project, however if the rollout is during the summer and fall this risk will be mitigated.

Special Challenges or Considerations

One potential issue is the limited amount of grant funds available. There is also an urgent need to complete and submit incentive and grant applications as soon as possible to ensure the PM are at the front of the funding queue and receive the most competitive incentives and grants.

5. TECHNOLOGY PROCUREMENT

Procurement of Fixtures

RealTerm Energy has directly handled the procurement of over 157,000 streetlight fixtures in the last two years alone, working with the major LED streetlight manufacturers.

We will only design LED street light systems using products from reputable manufacturers that are financially solid, certified, proven and supply the highest quality luminaires with appropriate warranties. We consider various fixture characteristics, such as color temperature, color rendition index, distribution pattern, efficacy, etc., and the impacts of each during the selection process. We will also be running a lifecycle cost and saving analysis on products.

The specific needs and requirements of the PM will be considered during the selection and procurement process and we will ensure that the utility does not have any restrictions.

The next step is to select the actual luminaires and network product options should you decide to include adaptive controls. Once we determine which fixtures and network options are best suited for your project and offer the best performance, our client services group begins negotiations with vendors. The PM are included in every step of the process.

RealTerm Energy will complete all administrative and logistical tasks relating to the procurement of the fixtures.

Our objective is to provide the PM with accurate information to understand the impact of possible choices and to help you meet all of your goals.

RealTerm has conducted a preliminary analysis of the PM streetlight inventory and considered several different reputable vendors to select the appropriate replacement fixtures based on the following criteria:

- Price
- Wattage
- Luminaire
- Diodes
- Drivers

- BUG (Backlight, Uplight, Glare)
- DLC listing
- Warranty
- Financial stability of the manufacturer

In addition to being a large turn-key provider for LED streetlights, RealTerm Energy's parent company, RealTerm Global, owns and operates over 300 airport buildings throughout North America. With total assets under management in excess of \$3.0B, we are a major buyer of lighting products for our own real estate portfolio and we are a national account, dealing directly with most major lighting manufacturers. Our purchasing power ensures that we get the most competitive prices and the best delivery terms available.

DELIVERABLES:

- Recommendations of cobra head luminaires, selecting from several manufacturers
- A complete analysis and recommendations for decorative fixtures or other lights in the project (parking lots, baseball / soccer fields, etc.), taking into account several manufacturers
- The network control systems that best meet your needs
- Complete service for selection, ordering and logistics

Smart Controls and other Smart City Solutions

Modern LED streetlights should do more than simply light up your streets. RealTerm Energy can assist each PM in acquiring additional controls and services for their existing streetlight networks. The Smart Controls enable a range of control functions for specific streetlight fixtures at any time and, in addition, offer a variety of additional monitoring services. These include, but are not limited to:

- Turning fixture on and off on-demand from any internet-connected device, with near-instantaneous response
- Dimming or raising light levels
- Adjusting lighting profiles so that streetlights can gradually increase or decrease light levels during sunrise/sunset, also known as "trimming"
- Monitoring any given fixture's current, as well as lifetime, performance characteristics, such as hours burned to date, constant lumen output (CLO), driver diagnostics, and energy measures
- Additional sensors that monitor traffic and air quality/pollution levels
- Additional sensors that detect gun shots
- Additional sensors that enable smart waste management services
- Additional sensors that enable smart parking, both in terms of increased enforcement revenue, parking space vacancy/occupancy, shortest-time-to-available-spot options for drivers, and more
- Additional sensor options to attach to the streetlight pole-top infrastructure
- EV charging stations

The addition of smart controls can maximize energy savings, minimize maintenance expenditure, improve the quality of life and safety of your residents, and also offer revenue-generation possibilities for the city.

RealTerm Energy has implemented an offering where we standardize the hardware and software of the existing customer base (over 100,000 fixtures) and work with third-party Smart City developers and vendors to deliver the service(s) required by each particular client. RealTerm Energy is not sole-sourcing solutions from any single Smart City supplier. Instead, RealTerm Energy sources several top

compliant vendors for each Smart City application and offers options tailored to the specific Smart Application requirement for each municipality, according to its current and future needs, and its budget.

This *à la carte* approach is central to RealTerm Energy's offering. The PM have the ability to select the individual service(s) that they desire to be implemented into their existing streetlight infrastructure rather than being limited to the packaged services commonly offered by other competitors.

Ours is a demand-based approach where RealTerm Energy works alongside and on behalf of its clients to validate Smart City offerings that are both compliant and ready to deploy. RealTerm Energy will manage all aspects of the project and there is no cost to purchase the hardware. The menu of services is delivered on an "As-a-Service" model to clients. We offer technical support and continuous upgrades throughout the contract to ensure service levels are maintained, and that the technology selected by the city does not become obsolete. Should the client choose to add or remove a service, they can choose to do so at any time.

Included in our adaptive control offering is the possibility of implementing heterogeneous communication networks in addition to the Smart Control network; this enables Smart City service offerings such as Wi-Fi and smart pole small-cell leases. Clients have seen financial benefits in the range of \$500 to \$2,000 per smart pole where the service is accommodated and commercialized.

6. INSTALLATION AND MAINTENANCE

Our field installation supervisors outline installation protocol and provide training for each team of installers to ensure that all work is done to the highest standards and is fully documented. Procedures are worked out in advance to ensure a safe working environment and to establish guidelines for handling exceptions and reporting problems.

As described in Section E1: Audit Reports – GIS Audit Report, RealTerm Energy's customized app enables our staff and municipal representatives to track installation in real-time. Use of the app expedites the entire process of installation, recycling and obtaining your grants/incentives because all data is tracked electronically and is easily transferable.

Our field installation managers, working hand-in-hand with our local contractors, will review the progress of your project daily with our in-house team, as is standard on all of our projects. We will provide updates to your staff at the frequency which meets your needs. This constant and vital communication between the project team members and the PM staff allows us to adapt and ensure a timely and problem-free project.

We will maintain all required insurance coverage (comprehensive general liability, automobile, errors and omissions and environmental).

Installation Options

RealTerm Energy will be the prime contractor on this project. Our experience in previous projects will ensure that this portion of the project goes smoothly. RealTerm Energy is not committing to a specific contractor at this stage, but we have short listed a reputable local electrical contractor, ES Boulos (<http://www.esboulos.com/>), for installation. We will work with the PM staff to determine if there are other local contractors they would like to consider for the installation phase. RealTerm Energy,

through team member George Woodbury's extensive experience in New England, has worked with a multitude of qualified streetlight contractors who are licensed in Maine who can also be considered for the installation phase. Our preference is always to employ local contractors.

Alternatively, there exists an installation option involving Central Maine Power (CMP). A description of this alternate option follows.

The process of acquiring the lights and converting to LED technology will require a fuse be installed between the fixture and the connection to the utility's secondary lines. In order for a qualified worker to safely install the fuse, the circuit must be shut off to conduct the necessary work and then turned back on once the fuse is in place, all at a cost to the PM. CMP is the only utility authorized to de-energize and re-energize the circuit. CMP has agreed to install the fuse in conjunction with de-energizing and re-energizing the circuit at a reasonable price. In addition CMP has provided pricing for the installation of LED fixtures and other services, offering the possibility that CMP could serve as the prime contractor and also provide follow-on maintenance services as needed. The concern is that it may be difficult to ascertain whether or not CMP has sufficient workforce and resources to complete the fuse/LED installation in a timely manner. A delay in the work will of course result in lost savings for the PM, which we all want to avoid.

We believe, however, that there is a potential solution that has already been employed by another major utility in New England to address this issue. National Grid introduced their S-20 tariff some years ago, which applies to municipalities that agreed to convert their Mercury Vapor fixtures to High-Pressure Sodium fixtures. When the Community agreed to the transition, the conversion to the S-20 tariff allowed them to be immediately billed as if the lights were already converted to the HPS lights. This allowed the utility to complete the work at their leisure while the municipality benefitted from the savings associated with the conversion. We believe a variant of this installation option could be negotiated between CMP and the PMs. The PM would be billed at the new reduced rate, as if the energy-efficient LED fixtures were installed, and CMP will be contracted and paid in advance to complete the fuse installation without an accelerated completion date. CMP would be completing both the fuse and fixture installation. We believe this would most likely cost the PM less than hiring CMP exclusively for the fuse installation and then hiring a private local contractor to install the fixtures. We also believe that if CMP would agree to this, it would accelerate the savings for the municipalities. It should be noted that if the PM engage the services of CMP for both the fuse and fixture installation, they can still choose a local contractor for the warranty and maintenance services.

We will work with the PM in determining the appropriate installation method and are willing to consider these and other options.

DELIVERABLES:

- Installation of new LED streetlights
- Tracking of installations via customized mobile app
- Complete data set of actual products installed, wiring changes, etc.
- Assistance in choosing and negotiating the appropriate installation option

Quality Control

We begin our quality control verifications as soon as the installation begins, to verify that our exacting standards are being met. We look to ensure that fixtures are mounted level and that proper safety equipment is in place both for the workers as well as the site. We check connections and ensure

adequate communications with the community. As the installation proceeds, we will spot check 5% of the upgrades to ensure ongoing compliance.

We are very confident in our process, which has been proven in over 149 LED streetlight conversions over the past three years. However, we know that human error occurs. Since this streetlight network will be operational in the PM for over 20 years, we want to make sure that everything will be delivered as promised. Therefore, we also offer the additional assurance of having third parties verify our installation work. Independent third parties will validate the quality of the workmanship as well as the accuracy of the data input for your future asset management. Reports from the independent third parties will be sent to the PM with the completion of the project.

Environmental Management Plan (EMP)

RealTerm Energy will develop an Environmental Management Plan in association with the installation contractors in order to respect the requirements for the identifying, handling, storing, and shipping of fixtures, and the hazardous materials resulting from the removal and recycling of the existing luminaires, in accordance with all Federal, State and municipal regulations. The information from our installation-tracking app will be used to plan the recycling work.

RealTerm Energy will handle recycling of complete streetlight fixtures including all lamps and capacitors. The streetlight fixtures will be completely disassembled in the PM and individual components will be shipped to the appropriate recycling facilities at the closest proximity. These items will be properly handled and disposed of according to local and State regulations.

The PM will be provided recycling certificates for all this material. RealTerm Energy will maintain organized disposal records for reference as needed. Staff for sorting operations will be hired locally, and processed scrap metals will be sold within the local area to support the local economy.

DELIVERABLES:

- Recycling certificate to document disposal of all current HID fixtures
- Cradle to grave tracking of materials
- Local employment performing the disassembly, sorting and disposal

Spot-Checks and Weekly Status Updates

RealTerm Energy will perform a sampling of spot-checks on installed lights to ensure proper installation procedures are being followed. As discussed in Section E1: Audit Reports – (GIS) Inventory Audit, RealTerm Energy and the PM representatives will at all times have remote access to the data provided by our customized mobile Installation-Tracking app and can track installs and project progress in real-time. This is a mandatory feature that the installers must use which also acts as their billing mechanism. With the data collected in the app, we can validate precisely the work being conducted in the field at each fixture location and provide weekly reports and status updates.

DELIVERABLES:

- Spot-check reports to validate that proper installation procedures were followed
- Weekly project status updates using Installation-Tracking mobile app
- Installation confirmation

7. ACQUISITION OF STREETLIGHTS

Using the data obtained from our inventory survey of the current street lighting system, RealTerm Energy's streetlight acquisition specialist George Woodbury will assist the PM in negotiating the acquisition of their existing streetlights.

George has been assisting communities with streetlight acquisition since 2000. He was the author of the first legislation in New England that permitted acquisition and has been an active participant in the law and rule making in Maine, serving as the expert witness for various Maine communities and municipalities.

The only open question before the Public Utility Commission (PUC) is the calculation of the net book value of the assets. Our methodology will be to receive and review the purchase and sale agreement and the License/Attachment Agreement to be sure they are consistent with the approved form agreed to before the PUC. We will also prepare any addendums as needed to address any unique circumstance(s) in each municipality. If desired by the PMs, it may be valuable for us to include review of any agreement for installation or removal services contemplated in connection with a conversion to LED technology as part of any addendum. We will also review the proposed purchase price and review the supporting information to verify proper calculation. In the event that an audit finds billing errors in favor of the municipality, we will assist with the securing of a refund or an adjustment of the purchase price to recoup the overcharges. Once the transfer of assets is completed, we will follow up to be sure the billing was appropriately adjusted to reflect the change.

DELIVERABLES:

- Streetlights are acquired
- Savings are enhanced
- Acquisition costs are minimized

8. INCENTIVES AND REBATES

George Woodbury has completed several hundred rebate and incentive applications, totaling close to \$15M dollars. Assisted by the other members of our Project Team, he will help the PM in determining the optimum designs in order to optimize all applicable incentive programs. Once the designs have been confirmed, we will submit the incentive application. Typically, municipalities have multiple options as to how they receive the incentives and some of these choices reflect more usefully in their budgeting than others. All options will be discussed with each PM to determine the best individual solution for each PM.

DELIVERABLES:

- Applications for incentives and rebates are made which meet the individual needs of each PM

F. VALUE ADDED SERVICES

LUX MAPPING™

Please refer to page 14 Section E3: Design – LUX Mapping™ to view the description of our unique LUX Mapping™ technology.

REVENUE-GENERATION POSSIBILITIES

As explained on page 19 Section E5: Smart Controls and other Smart City Solutions, there is the distinct possibility of using the Smart City network to add services which will generate revenue for each PM. This changes street lights from being a cost-center into a profit-center.

G. PROJECT SCHEDULE

We are able to start work on this project within a week of the project approval date. An estimated schedule is presented in the form of a Gantt chart in Appendix C (page 43). If installation is undertaken by local installers, it is possible for us to accelerate the process by hiring more workers; if CMP does the installation after changing the tariff, then the actual completion date becomes less important.

APPENDIX A—STAFF RESUMES



PAUL W. VESEL

Director, Business Development, North Eastern USA

INTRODUCTION

Paul brings more than 25 years of experience in energy and telecoms infrastructure development. Paul developed metropolitan fiber optic projects for ACSI Network Technologies in the late 1990s. More recently, Paul has developed municipal LED projects for RealTerm Energy in Latin America with a current pipeline of more than 75,000 street lighting upgrades.

ROLE

Paul will be managing all aspects of business development from project inception to completion.

EXPERIENCE

- Successfully developed, built, funded and managed utility and commercial solar PV projects in Spain, Germany and Canada.
- Managed legal, regulatory, financial, construction, design and sales components for 2 European infrastructure projects valued at \$30 MM.
- Built renewable energy project pipeline to over \$200 mm while tripling year-to-year revenue for Poderco Renewable Energy.
- Launched and managed Swisscom Eurospot, Spain. Within a year and a half, overtook Telefonica to become Spain's leading WiFi provider to the hospitality sector. Negotiated a strategic asset acquisition and exceeded all targets since starting the business.
- Negotiated strategic partnerships with established players throughout Latin America to secure a competitive market position, resulting in \$12 MM of annual recurring revenue.
- Raised \$15 mm for infrastructure project and \$5 mm in equity and convertible debt for Omniwatt AG.
- Developed 55 MWs of utility scale solar projects in North America and the EU
- Managed a \$12 MM dollar service company resulting in a 60% ROI. Negotiated all major contracts impacting both cost of sales and revenue.
- With P/L responsibility for international services, grew European revenue at a rate of 30% annually with a 45% gross margin.
- Developed street lighting project pipeline for Realterm Energy in Latin America of over 75,000 street lights.

EDUCATION

Masters in International Business Studies (MIBS), Univ. of South Carolina, 1986
Bachelor of Arts, International Relations and Economics, Univ. of Colorado, 1982
Université de Paris, Sorbonne – Semester Abroad; Studied: French Civilization
University of Copenhagen – Semester Abroad – Course of Study: Economics



GEORGE WOODBURY

Specialist in Street Light Acquisition, Incentives and Rebates

INTRODUCTION

While George worked as Public Works Director for Lexington, Massachusetts, he wrote the legislation permitting cities and towns to own their own street lights. Since 2001, George has assisted over 80 communities with the acquisition of their street lights. He has completed energy efficiency street light upgrades in over 25 towns and cities comprising over 100,000 lights and has saved these communities in excess of \$20 million annually.

ROLE

George will be a key interface with municipalities and utilities focusing on rebates, incentives and tax-exempt lease financing.

EXPERIENCE

- 26 year Veteran Army Corps of Engineers, retired as a full Colonel in 1995.
- Public Works Director for Lexington, MA, during which time he received three State Awards, including the Thomas Pickering Award for Innovation.
- Has been consulting since 2001 and during that time has assisted over eighty communities with the acquisition of their street lights and 37 communities with traffic signal conversions.
- Currently assisting three other states with legislation permitting municipalities to own their street lights: Maine, Rhode Island and Maryland.
- His work has recently expanded into New York, Maine, Rhode Island, Connecticut, Florida, Oklahoma, Nebraska, California, Pennsylvania, Arizona, Illinois and Texas.

George is a licensed energy broker in Massachusetts and has completed over forty energy supply contracts for either electricity or natural gas for municipalities.

EDUCATION

West Point Graduate, 1969 in the top third of his class

Master of Engineering, Univ. of Florida, 1976



CHAD SPANNAUS

Directors of Operations

INTRODUCTION

Chad is responsible for overseeing all operations and the seamless execution of our projects. He maximizes organizational effectiveness, ensures efficiency and people oriented guidance that yields productivity.

ROLE

Director of Operations

EXPERIENCE

Chad has over 20 years of experience analyzing business needs and leading the implementation of solutions that expand company footprint, increase efficiency and grow the bottom line.

Chad has held various positions ranging from President to Plant Manager, taking businesses to their next level of success or resolving the deficiencies that impede their ability to grow.

Prior to joining RealTerm Energy, Chad was the Chief Operating Officer at Avant-Garde Solutions, a technology company providing communication solutions via new technology.

He also held the position of Executive Vice President Client and Support Services at Quadriga Art, the largest international vertically-integrated fundraising direct marketing services enterprise, where he was responsible for organizational reengineering, process improvement and customer experience. Within the Quadriga Art family of companies, Chad was also President of Brickmill Marketing Services, a full-service direct marketing agency and database management company.

Prior to that, Chad was the Vice President Sales, Marketing and Business Development for MetroGroup.

EDUCATION

Chad attended Pace University.



DAN KIRKBY

Manager, Geospatial Engineering and Lighting Design

INTRODUCTION

Dan manages our Geospatial Information Systems (GIS), as well as the development of RealTerm's GIS-enabled Smart City management tools for local municipalities. He created our custom applications to gather field data, direct and record installation work and enable Smart City connectivity. Attention to detail and engineering expertise make Dan an invaluable member.

ROLE

GIS Mapping Coordinator & Design Supervision

EXPERIENCE

Geospatial Engineering Manager for RealTerm Energy

- Development and delivery of geospatial solutions in support of RTE services related to the design, project management, financing and maintenance of LED systems
- Development and management of mobile field collection and installation tool
- Management of day-to-day operations of RTE's Geo Department.
- Management of scheduling for RTE Field Surveyors and Subcontractors for Street Light Audit field surveys.
- Effective management of allocated street light audit budgets
- Providing subject matter expertise and engineering services for the development of large scale LED mapping operations
- Conducting quality assurance and control of collected data and collaborating with clients to ensure completeness
- Has worked on over 130 projects

Army Engineering Officer in the Canadian Military

- Served as the Officer Commanding Geospatial Support Squadron at the Mapping and Charting Establishment in Ottawa
- Troop Commander at 4 Engineering Support Squadron at CFB Gagetown
- Deployed to Kandahar, Afghanistan in 2008/09 in support of Task Force 3-08

EDUCATION

University of New-Brunswick, Fredericton 2011
Master of Engineering in Geodetic and Geospatial Engineering

University of Western Ontario, London 2002
Bachelor of Engineering Science in Civil Engineering



EVERTON CROSARA

Lighting Design Manager

INTRODUCTION

Everton has designed over 100,000 street lights (both cobra head and a wide range of decorative fixtures) across more than 100 projects since joining RealTerm Energy. His extensive knowledge of street lighting design and expertise in electrical distribution systems enables him to design for maximized energy efficiency and reduced costs.

ROLE

Everton is currently responsible for coordinating lighting design.

EXPERIENCE

Everton ensures an optimal lighting design, following the IES guidelines RP-8-2014, RP-22-2011 and RP-20-2014, as well as the Design Guides DG-4-2014, DG-19-2008 and DG-23-2014 for outdoor lighting.

Prior to joining RealTerm Energy, he was the Director, Operational Excellence at SRE Engineering and Constructions Ltd.

Everton brings valuable technical expertise to RealTerm Energy. He draws on his 20 years of project planning and management experience both in Brazil and Canada overseeing the construction and maintenance of systems of some 211,000 street lights, accent lighting, power-line distribution, transmission and energy efficiency.

Everton also developed parts of the curriculum for the Power Line Technician and Electrical Engineering Technician Programs at St Clair College in Chatham, ON, where he taught the “Power Transmission and Distribution”, and “Distribution Design” courses.

EDUCATION

Bachelor's Degree, Electrical Engineer	1998
Pontificia Universidade Católica de Minas Gerais, Belo Horizonte/MG, Brasil	



CSABA DEMZSE

Senior Energy Efficiency Manager

INTRODUCTION

Csaba is one of a handful of energy efficiency experts in the world at his level. Csaba applies tenacious focus to draw the greatest efficiencies from every project as he calculates operation, maintenance, costs savings and energy savings. He brings more than 20 years of experience in energy analysis and project management in North America and across Europe in the energy services industry. Csaba is fluent in English, French, Hungarian and Romanian.

ROLE

Supervises IGA and Financial Calculations - *Extensive Involvement in IGA*

Senior Energy Efficiency Engineer

EXPERIENCE

- Technical & financial models for energy efficiency lighting projects
- Managing day-to-day operations of Estimating Department
- Preparing and verifying lighting proposals, investment grade audits and RFPs
- Has worked on over 100 LED municipal street light projects

Energy Solutions Manager at Nedco Division of Rexel Canada Electrical Inc.

- Prepared more than 100 energy efficiency lighting audits for commercial, industrial and municipality clients
- Prepared Hydro Quebec and Hydro Ottawa incentive applications for clients
- Worked as Business Development Director and Sales Director in Europe for multinational companies such as Group Bouygues, Group GDF-Suez, Group Veolia Environment and Group TOTAL on the HVAC ESCO market.
- Prepared business plans and audits for 200+ energy efficiency projects for municipal/industrial clients in Building Energy Efficiency, HVAC (Heating Ventilation and Air Conditioning), Energy Performance Contracting, CHP (Combined Heat and Power Generation), Energy Management, Green Energy.

Professional affiliations:

- Member of Quebec Association for Energy Management (2010 – 14)
- Member of Canada Green Building Council Quebec Section (2011- 12)
- Member of European Federation of Intelligent Energy Efficiency (2006-07)
- Member of European Petroleum Gas Association (2000-2005)

EDUCATION

Buckinghamshire Chilterns University College, England

MBA in Business Administration

2004

Diploma of Collegial Studies in Mechanical Engineering, Romania

1981



MICHAEL MILLER

Senior Field Installation Supervisor

INTRODUCTION

Michael manages the team of installation supervisors for all of RealTerm Energy's projects. His inventiveness, tremendous breadth of experience and skill at working with people give him the tools needed ensure that every project moves along smoothly, as all of the inevitable challenges are faced, understood and solved.

ROLE

Installation Trainer and Supervisor

EXPERIENCE

Prior to joining RealTerm Energy, Michael worked for 35 years in the construction industry with his own company. In that role he supervised both commercial and residential construction, taught Project Management at a local community college, and worked in the municipal sector.

Michael joined RealTerm Energy at its very beginnings, and has helped to establish and perfect all of our procedures for coordinating and supervising the installation of street lights and building lights through qualified third party installers. He has been involved, either directly or through his team of on-site supervisors, in every one of RealTerm Energy's projects, involving more than 148 different installation projects for over 130,000 luminaires.

His wealth of experience has made Michael an invaluable resource not only to RealTerm and its clients, but to the various regulatory bodies and incentive providers who are seeking to ensure the proper functioning of street light systems.



MARIA REGUNAGA

Marketing Manager

INTRODUCTION

Maria is responsible for all marketing and communications at RealTerm Energy. She brings more than 12 years' experience implementing and managing a broad range of marketing communications projects for corporations, not-for-profit organizations and tourism associations in Canada and internationally.

ROLE

Maria works with Municipalities to efficiently communicate the LED upgrades to their residents.

EXPERIENCE

Prior to joining RealTerm Energy, Maria was a Supervisor, Client Services at Marketel for the Air Canada account, where she proposed and managed Air Canada's sponsorship programs for the Beijing 2008, Vancouver 2010 and London 2012 Olympic and Paralympic Games. Maria also planned, developed and supervised onsite the Vancouver 2010 Corporate Hospitality Program for Air Canada's Executives, Board members, trade, international guests and contest winners.

In addition to the Sponsorship projects, Maria managed and executed general brand advertising campaigns across different platforms (print, web, radio, TV and out-of-home) for the airline.

Previously, Maria was the Foreign Press Coordinator at the Tourism Secretariat of Argentina, where she developed the first integrated foreign press program bringing the Argentina tourism industry and international media together to generate articles about the country. She has organized media trips with journalists from Canada, Mexico, United States, Spain, Colombia and others, visiting different regions in Argentina, resulting in an important coverage of the destination. Maria has worked with top rated international media such as Condé Nast Traveler, BBC, National Geographic, TVE (Spanish Television), Vogue and others to develop tourism and lifestyle stories.

EDUCATION

Maria is trilingual (English, French, Spanish) and holds a Bachelor's Degree in Social Communications from the Austral University in Buenos Aires, Argentina.



CJ BOGUSZEWSKI

Vice President, SmartCity Solutions

INTRODUCTION

CJ is leading RealTerm Energy's offerings of smart controls and smart city applications, and developing a range of strategy options for municipalities in these two areas. He has primary responsibility for mastering our operating platforms, offering services such as heterogeneous networks (WiFi, smallcell/DAS), parking, air quality and surveillance.

ROLE

CJ will advise the City on the most advantageous products and strategies for saving energy and money, and creating new revenue streams and services for citizens.

EXPERIENCE

Prior to joining RealTerm Energy, CJ held two distinct roles at Silver Spring Networks (NYSE: SSNI) over his 4+ years there: first, while going through the company's Initial Public Offering, he led the U\$300M per annum Advanced Metering Infrastructure business; latterly, he led all Go-to-Market for SSN's Smart Cities and Lights business, reaching a U\$30M run rate in less than 18 months, while integrating market-leading street light vision into the business unit and claiming recognizable cities such as Copenhagen, Paris, Miami, and Glasgow as clients. He has spoken at conferences on every continent except Africa in the last year. He also holds Board and Advisory positions with several start-ups.

Before 2011, in his over 25-year career with well-known global companies such as Vodafone, Oracle, CIBER, and Liquidity Services, CJ has held a variety of product, business development, commercial, and technical roles, and brings a broad range of functional and international experience to bear on his perspective in the Smart Cities space.

EDUCATION

CJ is trilingual (English, French, Portuguese) and has an MBA from the London Business School and a dual-major Bachelor's degree from Cornell University.

APPENDIX B—MASTER PROJECT LIST

RealTerm Energy

MISSIONING

Client Name	Location	Approximate # of Fixtures
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55

10 YEAR ESPC

Client Name	Location	Approximate # of Fixtures	
Grey County	ON, CA	99	INSTALLATION

Client Name	Location	Approximate # of Fixtures	
Machar	ON, CA	13	SIONING COMPLETED

tSmart (George Woodbury)

Client Name

Location

Approximate # of
Fixtures

Client Name	Location	Approximate # of Fixtures	
Huntington Beach	CA, US	11	D COMPLETED

APPENDIX C: INSTALLATION GANTT CHART

Falmouth, ME

