

A quarterly publication of the Boston Chapter of the National Electrical Contractors Association



The electrical and telecommunications industry news in Eastern MA, ME, and NH

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POWERPOINTS

A Message from the Executive Manager

PV/Solar Electric Installations Require the Training and Knowledge of Licensed Electricians

For the users of photovoltaic (PV) systems, business and residential customers alike, it is critical that those who perform PV installations have the proper training and experience. It is also vital that oversight of solar electric projects is provided by qualified wire inspectors that examine all aspects of the electrical installation. It is a matter of protecting public safety as well as having assurance that an appropriate, quality solar electric installation has been provided.



Glenn Kingsbury

There are those that are trying to downplay the importance of having qualified personnel install PV systems and are seeking to exempt photovoltaic/solar electric projects in Massachusetts from existing state regulation and oversight, via House Bill 1004.

The installation of photovoltaic power systems is well covered by what has long been State law in Massachusetts - M.G.L. Ch. 141S 1. The statute reads, "No person, firm or corporation shall enter into, engage in or work at the business of installing wires, conduits, apparatus, fixtures or other appliances for carrying or using electricity for light, heat or power purposes, unless such person, firm or corporation have received a license and a certificate therefore, issued by the state examiners of electricians and in accordance with the provisions hereinafter set forth." The language of this statute is unambiguous. It certainly applies to the installation of photovoltaic systems, which require wiring to enable the conversion of sunlight into electricity, which is used to light, heat and power our homes, educational facilities, and businesses.

For the last 96 years, the contractors of the Electrical Contractors Association of Greater Boston (NECA) have abided by the regulations of the State Examiners of Electricians. We have gained the necessary training and experience to qualify as "Master Electricians." In a 2009 ruling, The Massachusetts Board of State Examiners of Electricians (BEEE) reinstated its determination that photovoltaic systems in Massachusetts are required to be installed, repaired and maintained only by a licensed journeyman electrician or a properly supervised apprentice. It is a determination that will continue to serve the Commonwealth and its citizens well.

NECA and our electrical industry partners, the IBEW, are well prepared to meet the increasing demand for photovoltaic installations. We have, for years, been training apprentices and journeymen electricians in photovoltaics. The contractors of our Association have adeptly performed dozens of solar installations, just a few of which are documented on these pages. These PV projects, and many others that are underway by our experienced electrical contractors, will continue to positively impact the business community and residential customers throughout the region for years to come. They are projects that have been and will be installed to meet

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ELECTRICAL INDUSTRY NEWS

160 Electricians and Telecom Specialists Graduate at 65th Annual Greater Boston JATC

Boston, MA – The Joint Apprentice and Training Committee (JATC) for the Electrical Contracting Industry of Greater Boston held its 65th Annual Apprentice Graduation on June 2nd in cooperation with IBEW Local 103 and NECA Boston Chapter. A total of 160 skilled craftsmen and women comprised of 131 electrical apprentices and 29 telecom apprentices graduated during the ceremony at IBEW Local 103 headquarters in Dorchester.

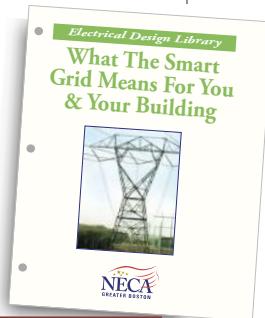
NECA Boston Chapter Board Meets with Rep. Stephen Lynch (D-MA, 9th District) On Legislative Issues

West Newton, MA – In June, Boston NECA board members met with Congressman Stephen Lynch (D-MA 9th District) to discuss legislative issues of concern to responsible contractors, including preserving the Davis-Bacon Act, the continued use of Project Labor Agreements, repealing the 3 percent withholding tax on government work, modifying the estate tax, extending tax incentives for renewable energy and efficiency development, and cracking down on dishonest employers who misclassify workers as independent contractors.



NECA Boston Assistant Executive Manager Matt Lash, State Electric's Ronald Koning, Jr., Broadway Electric's Lawrence Hurwitz, Rep. Stephen Lynch, LAN-TEL Communications' Joseph Bodio, E.S. Boulos' Thomas Driscoll, J.F. White Electrical's Gregory Sapochetti, and NECA Boston lobbyist Jim Smith.

With This Issue NECA Boston Chapter is pleased to provide a recent issue of NECA's *Electrical Design Library* with this issue of *Connections*. It provides building owners and developers an overview of how The Smart Grid can provide improved power quality, reliability and control of energy costs. ■



CONNECTIONS

CONNECTIONS is a quarterly publication of the Boston Chapter of the National Electrical Contractors Association / Electrical Contractors Association of Greater Boston, Inc., 106 River Street, West Newton, MA 02465. Phone 617-969-2521.

Mission: CONNECTIONS is designed to provide information relating to current happenings in the electrical construction industry in Eastern Massachusetts, Maine, and New Hampshire and to report activities of the Boston Chapter of NECA and its members. Your comments are welcome. We can be reached via e-mail at: info@bostonneca.org



INSTALLATIONS

An inside look at recent projects completed by NECA Greater Boston Chapter members

Mass Bay Electrical Nears Completion of \$5.2M Electrical Construction of Logan International's Terminal C Renovation/Expansion Project

Fellow NECA Contractor Maureen Electrical serves as DBE Subcontractor; GC: Skanska USA Building Co., Boston; EE: WSP Flack and Kurtz, Boston, MA; Architect: C&R/Rizvi Architects, Inc., Boston, MA

Boston, MA—Mass Bay Electrical of East Boston is in late phase construction of the \$5.2M electrical renovation and expansion project at Logan International Airport's Terminal C, which is comprised of all gates for Jet Blue and United Airlines.



Mass Bay's project scope entailed providing numerous electrical upgrades and energy efficient enhancements to the four-decade old facility, including the installation of new LED Lighting Systems featuring integrated controls for daylight harvesting and occupancy dimming. The project also includes a new fire alarm system, paging system, security system, and emergency power distribution system for Terminal C. In addition, the NECA contractor is providing electrical installations for the new TSA security checkpoint in the terminal, as well as for the shopping mall and gate hold rooms.

Mass Bay's Project Manager Rick Broderick and General Foreman Wayne Banks have supervised a field crew ranging from 20 to 24 IBEW Local 103 electricians throughout the aggressive 11-month project timeline. The NECA contractor has crews working night shifts to meet schedule requirements. New terminal checkpoint areas opened in June.

Multi-phase Fast Track Project

All installations are being provided in one of

Logan's busiest terminals while the terminal remains fully operational. The fast track project has been structured in many phases, including: renovations to the ticket hall; installations for the new checkpoint area; renovations to bag belt systems; installations for the new Jet Blue ticket counter; conversion of existing checkpoint areas into new hold rooms for new gates; renovations to the arrivals area bag service offices; and installation of new ventilation and security systems for the crawl space areas under the terminal.

Energy Efficient Lighting Systems

The lighting retrofit is among many unique project challenges met in the occupied terminal. New EE LED Lighting Systems featuring integrated controls for daylight harvesting and occupancy dimming have been installed. Lighting in the ticketing hall required special floating/suspension staging for installation of lighting systems. Here, Mass Bay and DBE subcontractor, Maureen Electrical, first provided temporary lighting.

Advanced Imaging Security Systems

Security system installations are being provided and tested in tandem with system manufacturer Schneider Electric. Within the security scope, Mass Bay has provided infrastructure wiring for the TSA Advanced Imaging Technology.

Parallel Installation of Life Safety System

Mass Bay is installing a state-of-the-art Simplex Grinnell fire alarm system while the existing system is kept operational. New automatic smoke detection and sprinkler systems are installed throughout the terminal. Additionally, the contractor is providing power wiring for the ventilation system, which interfaces with the fire alarm system.

"Managing logistical challenges is critical to the project's success," said Mass Bay PM Rick Broderick. He continued, "Simultaneous construction in a \$55 million reconstruction of one of Logan's busiest airline terminals requires close coordination with the entire project team. Massport, project consulting firm Caminiti Consulting, Inc., and general contractor Skanska USA have worked adeptly with Mass Bay and other key subcontractors to ensure the project remains on track. General Foreman Wayne Banks has done an exemplary job in managing Mass Bay's skilled Local 103 workforce." Experience indeed has played a key role. PM Broderick is a 15-year employee of Mass Bay Electrical and Banks has been with the NECA firm for more than 25 years. ■

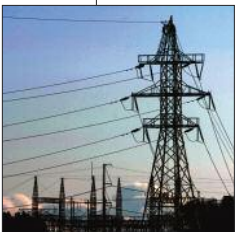
Spectrum IT and LAN-TEL Provide Tel/Data

Under separate contracts, Spectrum Integrated Technologies provided telecom installations and LAN-TEL Communications handled fiber optic cabling. Mass Bay provided the telecom infrastructure for the tel/data wiring project.

Mass Bay Electrical Completes Cape Cod Canal Tower Cable Retrofit Installation

Critical safety measures employed by NECA contractor in NSTAR project

Bourne, MA—In a highly specialized operation, Mass Bay Electrical successfully completed the retrofit installation of new optical and static ground wire cable in two Cape Cod Canal towers in late December 2010.



Mass Bay's project scope involved changing the existing static line to a new OPGW static line with a core of fiber optic cable. The project entailed transporting cable across the Canal via helicopter in the intricate and critical installation process. Nearly two (2) miles of cable was installed in the process.

The cable and Canal towers are used for communication between NSTAR's control room and various NSTAR substations on the Cape and in Southeastern MA. The new cable line also protects high voltage lines from lightning strikes. The

Canal's north and south towers are located between the Sagamore and Bourne Bridges and the cable brings power to the Cape and Islands.

The project involved closing down two major highways — Routes 6 and 6A, the Massachusetts Coastal Railroad (Bourne to Hyannis), and the Cape Cod Canal during the critical operation, which was performed from 7AM to 5PM. Coast Guard, State police and local police were on site to assist in the oversight of the process and Local 104 had several additional safety inspectors on site to ensure the project was handled appropriately.

Bucket trucks with rigs on the ground were positioned underneath critical lines to catch lines in case of cable failure to protect the Canal and railway. All linemen wore special PPE safety



harnesses. A helicopter was also utilized to allow for disengaging four (4) aviation obstruction safety balls from the existing cable line, enabling line inspection. The procedure was necessary to ensure the integrity of the existing line was

such that it could be used to pull in the new cable. The aviation balls, used to protect pilots flying along the Canal, were reinstalled following the installation of the new cable.

Mass Bay Vice President James D. Moulison, Jr., Project Manager Dan Sullivan, and Project Foreman/Head Lineman Jason Meashaw supervised a team of 20 IBEW Local 104 linemen in the 10-hour project. ■



INSTALLATIONS

An inside look at recent projects completed by NECA Greater Boston Chapter members

Maureen Electrical, Inc. of Methuen, MA Completes \$405,000 Lighting Retrofit Project at Massasoit Community College's Brockton and Canton Campuses

Methuen, MA based NECA contractor teams with prime contractor Johnson Controls, Inc.

Brockton and Canton, MA – Maureen Electrical has completed the fast track \$405,000 lighting retrofit project at six buildings on the Brockton campus of Massasoit College and at the entire Canton campus. The project, which began in August 2010 was substantially



The Canton campus of Massasoit Community College

completed as scheduled in December last year. The project was inspected and approved in May. The lighting renovation project had an original \$231,000

contract value for Maureen Electrical which represented 40% of the project value. After one month, based on the NECA contractor's work performance, Maureen was extended an additional 20% of the workload and contract.

Energy efficient (EE) lighting upgrades were installed throughout the Canton campus and at the Brockton campus Field House, Fine Arts Building, Maintenance Building and Student Center. The Conference Center in Brockton was later added to the project. Maureen Electrical's Operations Manager and Project Manager Alec Huber and company principal Maureen Thompson supervised a field crew of 25 IBEW Local 103 and Local 223 electricians at peak construction. The team in-

stalled EE low power ballasts, industrial fixtures, T8 lighting, and occupancy sensors throughout the facilities. Commenting on the project's success, Huber said, "Maureen Electrical was able to meet project schedules thanks to the great workforce of union electricians provided by Locals 103 and 223." ■



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PHOTOGRAPH: SEYMOUR LEVY

Mass Bay Awarded Logan Airfield Runway Lighting and Cabling Project

Boston, MA – In a highly specialized project, Mass Bay Electrical has been awarded the Logan International runway lighting and cabling project – Massport Project L797-C2. The project will entail replacing self-5kV feeders and miscellaneous airfield improvements. Mass Bay

has subcontracted a portion of the project to Maureen Electrical and will closely supervise and mentor the firm on the high voltage project. The project began in June 2011.

Last year, Mass Bay Electrical completed the C1 contract for Logan Airfield's north feeders. ■

Mass Bay Electrical and Maureen Electrical Awarded, Underway with I-90 Pru Tunnel Lighting Project

Boston, MA – As a subcontractor to MassBay Electrical of East Boston, Maureen Electrical has been awarded and is underway with the Pru-Tunnel lighting project. The project commenced in the spring and has a targeted completion in late 2011. R. Zoppo Corp of Boston is serving as the project's general contractor. Maureen Electrical will manage a crew of between two and four IBEW electricians throughout construction. ■



Maureen Electrical Completes \$325,000 Fall River Housing Authority Security Project

Fall River, MA – Maureen Electrical completed the installation of 458 security cameras tied to power supplies and DVRs at seven (7) separate housing facilities throughout Fall River on April 30, 2011. At peak construction, the woman-

owned NECA firm managed a field crew of 18 union electrical workers and telecom technicians based out of IBEW Local 103 in Dorchester and Local 223 in Lakeville. ■

CONTRACTOR PROFILE

Maureen Electrical – Woman-Owned Firm Building A Brighter Company as a NECA Contractor

West Newton, MA – Since Maureen Electrical, Inc. of Methuen, MA first became a signatory contractor of IBEW Local 103 in December 2008 and shortly thereafter joined NECA in 2009, the company has experienced a surge in business, despite the lackluster economy. Company



Maureen Thompson, principal of Maureen Electrical, reviews lighting plans for Massasoit Community College with Foreman Ed Cogavin.

founder and president, Maureen Thompson, and operations manager Alec Huber attribute the firm's growth to the support of Local 103's highly skilled workforce and the training, education, and hands-on support that NECA membership has offered.

"The highly professional workforce provided by IBEW Local 103 and the trust and mentoring of fel-

low NECA contractors, especially Mass Bay Electrical, have been instrumental to the growth of Maureen Electrical," said Operations Manager Alec Huber. The company expects annual revenues to grow from \$600,000 in 2009 to more than \$1.5M in 2011.

Maureen Thompson founded the company in 1998. She holds both her journeyman's and Master Electrician's licenses in Massachusetts and New Hampshire. Huber is also a journeyman electrician from IBEW Local 103. ■

INSTALLATIONS

An inside look at recent projects completed by NECA Greater Boston Chapter members

Yates Electric Shines in Energy Efficient Lighting Upgrade at Pratt & Whitney Plant in North Berwick, Maine

Durham, NH – In late 2010, Yates Electric Service completed a major lighting retrofit project at the Pratt & Whitney aircraft engine part manufacturing facility in North Berwick, Maine. The project entailed Yates' replacement of 1600 – 400W HID metal halide light fixtures with state-of-the-art, energy efficient 270W fluorescent T5 fixtures. The fast-track project commenced in June 2010 and was completed as scheduled in October 2010. Yates managed a team of two crews that provided installations on platform lifts over work areas in the expansive

fully occupied facility. The work was provided without disruption to Pratt & Whitney's production schedules. The lighting improves light quality and substantially reduces the building's energy consumption, saving 208,000 watts of energy – exceeding the ASHRAE 90.1 2004 standard by 15%. The new fixtures are equipped with occupancy sensors, further enhancing their energy efficiency. Pratt & Whitney will receive a rebate from Central Maine Power (CMP) for the installation. ■

Yates Electric Connects on UNH EcoLine Heating Plant Electrical Installation Project

Durham, NH – In another project that has positive impact on the environment and energy usage, Yates Electric Service has completed installations for medium and high voltage systems at the University of New Hampshire's Co-Generation facility for the campus' supplemental generator. The project, integral to the UNH Eco-Line Power Partnership, was a joint venture between EMCOR Energy Services, based in Connecticut, and the University of New Hampshire. The generator serves portions of electrical load for various buildings on the Durham campus.



Padmount transformer being offloaded for installation at UNH heating plant facility. It steps up supplemental generator voltage from 5kV to 38kV and interconnects to the Public Service power line.

According to the University's website, "UNH generates and distributes its own power and heat from its combined heat and power plant, which uses processed landfill gas as its primary fuel source through a 12 mile pipeline known as Eco Line. The use of this fuel and the efficient manner in which waste heat is reused from the production of electricity

illustrates the University's commitment to reducing our impact on greenhouse gas emissions while reducing our energy use and stabilizing utility costs to the campus." ■

CONTRACTOR PROFILE

Yates Electric Powers Education, Government and Utility Projects in NH and ME

West Newton, MA – Yates Electric Service, Inc. is a second-generation NECA contractor founded in 1978 by William Yates. Company President Julie Merrill now manages day-to-day operations along with fellow company officers, senior estimators and project managers Jim Casey, Jason Palmer and Bob Scholefield. The company provides diverse, technical electrical contracting services to commercial, industrial, educational and public facility projects throughout New Hampshire and southern Maine. These services include substation construction and maintenance, industrial motor control installations, emergency power systems, marine electrical services, and

electrical bridge maintenance.

A signatory contractor to IBEW Local 490, Yates Electric manages a staff of approximately 25 employees. In addition to Portsmouth Naval Shipyard projects, Yates has provided electrical services at Phillips Exeter Academy for the past 33 years, including electrical upgrades for campus faculty housing, dormitories, academic buildings, life safety/emergency power systems and the campus' 5kv distribution system upgrades. They have also recently completed projects for State of New Hampshire Department of Transportation, Pratt & Whitney, University of New Hampshire and Public Service of New Hampshire. ■

ELECTRICAL INDUSTRY NEWS

Yates Electric Receives Safety Award from Dept. of the Navy for Portsmouth Naval Shipyard Electrical Construction



Key Naval officers present Yates Electric's Jim Casey and Bob Scholefield PWD Maine Safety Award

Norfolk, VA – On June 7, 2011, Yates Electric Service, Inc., a NECA New Hampshire Division contractor, received a special PWD FY11 Maine Safety Award from the U.S. Department of the Navy. The award was issued for the Company's "outstanding safety awareness and oversight of electrical service operations." The award citation continues, "Building on a 13 year tradition of safe operations with zero accidents at Portsmouth Naval Shipyard, YATES ELECTRIC SERVICE has shown a sustained and superior commitment to that end and has met the highest standards of the Navy, NAVFAC MIDLANT, and PWD Maine." Yates has provided numerous office and industrial facility renovations for the Portsmouth Naval Shipyard in recent years.

Yates is handling a sports lighting project for the Portsmouth Naval Shipyard's Jamaica Island Ballpark, as well as utility relocations for a 10-building demolition project and a new Naval Base Post Office facility. All are scheduled for completion in summer 2011. ■

Yates Electric Upgrades Sarah Mildred Long Bridge in Portsmouth, NH



In 2009, the Durham based NECA member completed the project for the NH Dept. of Transportation and the Interstate Bridge Authority. It involved a complete upgrade of the Bridge's lift and control systems.

INSTALLATIONS

NECA Contractors Leading Way in Solar Projects in Greater Boston

Lighthouse Electrical Completes Design/Build Planet Subaru 78kW PV Project, Hanover, MA

**First Subaru Showroom in US Powered by PV;
Engineer: ART Engineering, Worcester, MA**

Hanover, MA – Lighthouse Electrical Contracting, Inc. of Rockland, MA has recently completed solar installations at the Planet Subaru dealership in Hanover. The 78.54kW system is comprised of 374 Evergreen Solar panels mounted to the building's 9,200 sq. ft. roof via a ballasted Sunlink roof-mount system – specified due to its lack of roof penetration, Satcon solar inverters, and a Solectria data acquisition system.



Lighthouse PM Newell Thomas and Foreman Billy Norcott headed a crew of 5 electricians based

out of Local 103. The project commenced in mid-January and was completed in late April 2011. The system supplies 85,000kW of electricity per year, which represents approximately 40% of the dealership's energy needs.

The Subaru dealership, owned by brothers Jeff and John Morill, has won several awards for their environmentally friendly approach to their dealership, including the U.S. Environmental Protection Agency's Energy Star Small Business Award and USA Today's and National Auto Dealer Association's Dealer Innovation Award. ■

J. M. Electrical Installs Solar Electric System at Governor's Academy in Byfield, MA

Lynnfield, MA – NECA Boston contractor J. M. Electrical Co., Inc. of Lynnfield completed

the installation of the Governor's Academy PV system in a 3-month project in the late 2010. The company's field crew of 5 electricians from IBEW Local 103 was supervised by PM



Adam Palmer and Foreman Paul Kelly. The system consists of 154 Kyocera solar panels and two (2) Solectria 15kW solar inverters, and a PanelClaw ballasted roof-mount system. ■

J.F. White Electrical Completes WELCO 75.26kW PV System in Stoughton, MA

Stoughton, MA – J. F. White Construction's (JFW) Electrical Division recently provided design/build services for the 75.26kW rooftop solar system at the WELCO facility in Stoughton, MA. The project included JFW's solar array electric energy analysis, development of schematic design, performance calculations, fil-

ing all permits, and DG interconnection application. The firm also provided system commissioning and on-site training. The six (6) array PV system is comprised of 390 Kyocera 235-watt PV modules mounted on a Unirac HD rail racking system, utilizing four (4) 13kW and two (2) 15kW Solectria inverters. ■

Broadway Electrical Completes MWRA Deer Island Solar System



Broadway's design/build 456.12kW solar electric system project at MWRA's Winthrop treatment plant was completed in May 2011.

Powerpoints *Continued from page 1*

Solar Electric Projects and Licensed Electricians

all Electrical Codes and specifications. We applaud the State Board of Electrical Examiners for their

ruling that confirms that PV system installations be handled by properly trained personnel, and with the oversight of electrical examiners and wire inspectors. NECA looks forward to continuing to build a safer, brighter and renewable future for Massachusetts. ■

Recent and Current NECA Boston Chapter Member Photovoltaic Projects (partial list)

SOLAR PROJECT	ELECTRICAL CONTRACTOR	SOLAR PROJECT	ELECTRICAL CONTRACTOR
Alpha Grainger Mfg., Franklin, MA	Broadway Electrical	MCI Northeast, Concord, MA	J.F. White, Electrical
Arthur Hurley Company, Readville, MA	Broadway Electrical	MCI Shirley, MA	J.F. White, Electrical
Baystate School of Technology, Canton, MA	Lighthouse Electrical	Medway High School	Broadway Electrical
Braintree Electric Light Department	Broadway Electrical	Oriental Furniture, Cambridge, MA	J.F. White, Electrical
Carlson Orchards, Inc., Harvard, MA	Lighthouse Electrical	Planet Subaru, Hanover, MA	Lighthouse Electrical
Collicot School, Milton, MA	Broadway Electrical	Quincy High School	Broadway Electrical
Concord Willard School, Milton	Broadway Electrical	Salem State College, Atlantic Hall	Broadway Electrical
Cottage Street PV Project, Springfield, MA	E.S. Boulous Company	Silver Lake 2.5MW PV, Pittsfield, MA	E.S. Boulous Company
Deer Island Treatment Plant, Winthrop, MA	Broadway Electrical	St. Mary's High School	Broadway Electrical
The Governor's Academy, Byfield, MA	J.M. Electrical Company	Town of Dedham, MA	J.F. White, Electrical
Harbor Park Pavilion, Boston, MA	Broadway Electrical	Trinity Financial Washington/Beech	Lighthouse Electrical
Indian Orchard 2MW PV, Springfield, MA	E.S. Boulous Company	Town of Rehoboth Senior Center	Broadway Electrical
Lawrence Boys and Girls Club	J. M. Electrical Company	Watertown, MA DPW Building	Broadway Electrical
Logan Airport, Terminal B Parking Garage	Broadway Electrical	WELCO, Stoughton, MA	J.F. White, Electrical
Lowell Regional Transit Authority	Ostrow Electric Company	Wellesley Municipal Light	Ostrow Electric Company

SHOPTALK

An interview conducted with electrical industry professionals on issues impacting the construction industry.

Trends In Solar Power

An interview with **Brad Sherman, Technical Sales Manager at Solectria Renewables**, based in Lawrence, Massachusetts. Solectria Renewables is the leading manufacturer of grid-tied solar (PV) inverters, string combiners and web-based monitoring systems in the U.S.

Q How are you finding current market conditions for the development of new commercial and utility grade PV systems in New England?

A Business in Massachusetts remains vibrant, given strong state PV incentives and SREC (Solar Renewable Energy Certificate) programs, leading to a growing solar presence in the state. The solar market is booming nationwide and the U.S. is currently viewed as one of the best potential solar markets in the world. Massachusetts continues to be a consistent contributor to the solar industry's growth in the U.S.

Q What are the latest innovations in the Solectria Renewables product line?

A Solectria Renewables latest products have been developed for the large scale solar market. We introduced the SMARTGRID Inverter (SGI) series for large commercial and utility-scale solar deployments, and have developed advanced Smart Grid features to support solar deployments of this size.

Q How are these products positively impacting clean electricity generation and payback for the end-user?

A Our inverter technology is continually raising the bar with better efficiencies and more advanced features. We now offer industry-leading efficiencies which lower payback and increase overall energy harvest. As a U.S.-based manufacturer, we are providing many green jobs to employees across the U.S. We also take pride in the fact that over 95% of the components utilized in manufacturing our inverters are U.S. made components.

Q Solectria Renewables inverters and monitoring systems have been specified in diverse NECA projects. Please reference a few.

A Ostrow Electric's PV installations at Chelmsford High, Londonderry Moose Hill School, Putterman Public Library, Wellesley Municipal Light, Wellfleet Fire Dept, and Winchester High School.

Lighthouse Electrical's PV installations at Carlson Orchards, Boston Latin Academy, and Murphy School.

Broadway Electrical's installations at Salem State College Central Campus Residence Hall, and Rehoboth Senior Center.

J.F. White's installations at MA Dept. of Correction facilities, Dedham Town Hall, and Dedham High School.

Q Are there any utility-grade projects in Massachusetts in which Solectria equipment has been specified, and with which NECA contractor(s) have you been working?

A Ostrow Electric is currently installing a Solectria Smart Grid Inverter, the SGI 500, for the Lowell Regional Transit Authority utility grade solar installation. *Editor's Note: The .5MW solar project will generate 489,700kwh of electricity per year, saving the agency up to \$85,000 annually. It will be comprised of 1911 – 250w roof-mounted solar panels and is the largest public transit solar project in MA.*



J.F. White Electrical's solar installation at Norton Middle School and Solectria Renewables line of Commercial and Utility-Grade Grid-tied Inverters.

Q In having worked closely with NECA contractors in design/build solar projects, what would you say are the benefits that these contractors bring to the projects?

A NECA contractors consistently bring the highest level of expertise, professionalism and attention to detail to the solar industry. Since all PV systems are built with the goal of producing electricity,

there are few more qualified electricians than the NECA members to tackle the installation and operation of these systems. It has been our pleasure to serve these groups and provide our inverters for their PV installations.

Q Comment on the current New England solar market and its prospect for growth over the next several years. What sectors do you see as being the biggest growth markets?

A Market data suggests the biggest growth markets will be in the ground-mounted, utility-scale PV systems. As such, Solectria Renewables is continually expanding our market share and product offerings for this market. The next biggest growth market will be commercial rooftops, and our existing product line has served this market space with many years of reliable and efficient operation. We continue to support the growing residential sector as well with a variety of small to medium size residential inverters. ■



For a complete directory of NECA Greater Boston Chapter members, visit www.bostonneca.org