

# ELECTRIC VEHICLE SUPPLY EQUIPMENT EDUCATIONAL WORKSHOPS FOR NEW YORK STATE



NREL IMAGE DATABASE/22836

SUMMARY OF WORKSHOP ACTIVITIES AND RESULTS

JULY 2013

for:  
New York State Energy Research and Development Authority

by:  
Energetics Incorporated



## INTRODUCTION

---

In support of NYSERDA's EVSE deployment efforts the contractor arranged for 5 half-day regional EVSE workshops, one in each of the following 6 Clean Cities regions: Western New York, Genesee Region, Central New York, Capital District, and Long Island. See the table and map below for further location information.

Region	Clean Cities Coalition	Workshop Location	Date
<b>Central New York</b>	<a href="#">Clean Communities of Central New York</a>	Syracuse University Center of Excellence Syracuse, NY	5/8/2013
<b>Western New York</b>	<a href="#">Clean Communities of WNY</a>	Buffalo Niagara Medical Campus Buffalo, NY	6/5/2013
<b>Genesee Region</b>	<a href="#">Genesee Region Clean Communities</a>	Monroe Community College Rochester, NY	6/6/13
<b>Westchester</b>	<a href="#">Empire Clean Cities</a>	NY Power Authority White Plains, NY	6/17/2013
<b>Long Island</b>	<a href="#">Greater Long Island Clean Cities</a>	New York Institute of Technology Old Westbury, NY	6/18/2013
<b>Capital District</b>	<a href="#">Capital District Clean Communities</a>	NYSERDA Albany, NY	6/19/2013

Participants included municipal planners, building and electrical codes officials, electrical inspectors, and electrical installers. The contractor assisted with on-site logistics, including attendee registration and interface with the meeting site host. The contractor also identified and arranged local speakers with EVSE experience, and prepared a local Clean Cities overview presentation which was delivered at each of the 6 workshops.

The purpose of the workshop was to provide the identified audience with important background understanding of the electric vehicle and electric vehicle charging infrastructure landscape in New York State, ongoing projects to facilitate these deployments, the potential issues a region may face in implementing electric vehicle programs, and potential solutions to these issues. The workshop also offered the identified audience access to resources to connect them with the wider group of EV-ready communities to share best practices.

## WORKSHOP FORMAT

The workshop agenda involved two separate, but related, sessions, with an introduction to start the workshop. The agenda was similar for each event across the state to ease the planning burden. In most cases, the local Clean Cities Coordinator provided the introduction and the basic overview of the workshop structure, and served as the connection between the workshop team and the attendees.

In the first session, the audience was kept together as a group and provided with information on the progress in electric vehicle deployment in New York, the resources available to facilitate increased



deployment, and the lessons learned from existing EVSE deployments by NYSERDA and other groups. This session involved a combination of presenters from NYSERDA and the project team to provide an overview of New York State electric vehicle deployment and NYSERDA's role in that deployment. Where available, a local representative from a fleet that implemented an electric vehicle program was used to discuss their lessons learned and provide their local perspective. The Clean Cities Coordinator from the region also presented information on any ongoing regional planning efforts for electric vehicles being conducted under other projects. Attendees were free to ask general questions of NYSERDA and the project team as needed. The first session will end with a short break.

In the second session, the audience was usually split into two groups based on their particular information interest (EVSE installers/inspectors, and local planners/building officials). These breakout groups specifically discussed issues and concerns relevant to that group in more detail. These breakout sessions used the local Clean Cities Coordinator, NYSERDA representatives, and Energetics project staff to serve as the session leader/facilitator. Within each session, local representatives of the International Brotherhood of Electrical Workers (IBEW), the International Association of Electrical Inspectors (IAEI), and local implementers of EVSE projects were made available for a presentation and panel discussion on the relevant topics for installers/inspectors or planners/building officials prior to the close of the meeting. For this meeting, the agenda did not include a collective wrap-up session for both groups together. Where possible, the attendees were given the opportunity to view an EVSE installation onsite at the meeting location.

## SUMMARIES OF REGIONAL WORKSHOPS

---

Below are brief summaries of the individual workshops, with specific feedback on the activities conducted and the responses from attendees.

### CENTRAL NEW YORK (SYRACUSE)

On behalf of Energetics; CC of CNY hosted and participated in an outreach workshop on May 8<sup>th</sup>, 2013. The event was held at the Syracuse University Center of Excellence was attended by local planners, supporters, and Coalition members. Additionally, NYSERDA was represented by Adam Ruder; and Energetics was represented by Bryan Roy. An attendee list and agenda are attached to this document for purposes of reporting. The focus of the presentations was to simplify and streamline the permitting/installation process for EVSEs; and the group met together for presentations by Nyserda, Energetics, Synapse (EVSE host), the CNY Regional Planning & Development Board (Sustainability Plan), IBEW (local installers/electricians) and the local Clean Cities Coordinator. In the afternoon, the group split into two and one group focused on installers, the other on planners. There were a lot more planners than installers, we would suggest repeating the session in the near future. Great conversations took place on types of stations, types of vehicles, and available funding mechanisms. A demonstration of a Nissan Leaf (provided by Synapse) and a level 2 charger (provided by the Syracuse COE) was held during the two sessions. We would be happy to bring additional groups in to present the materials to a wider audience periodically.



## WESTERN NEW YORK (BUFFALO)

The event was held on the Buffalo Niagara Medical Campus in the Gates Vascular Institute. This venue was chosen primarily due to the fact the BNMC has several EVSE charging stations installed and operational allowing for demonstration of the equipment after the lectures.

Craig Jackson, Clean Cities Coordinator for Western New York, provided an overview of the day's events and introduced the first speaker, Linda Hardie with NYSERDA. Linda gave a background presentation on NYSERDA and their involvement with EVSE technology.

Following Linda, Craig Jackson then presented information on the Clean Communities of WNY, the organization's involvement in EVSE, and opportunities to partner with CCWNY on future projects.

Brian Roy of Energetics was then introduced to present on the basics of EV's and EVSE equipment, as well as EVSE installation basics and installer resources.

The electrical installer expert panel followed, featuring Jeffrey Williamson of Ferguson and Curtis Johnson from the IBEW. Their experiences and input were well received with several questions being asked and answered. Adam Lubinsky from WXY Design Studio presented on EV Planning Considerations. Mark McGovern of BNMC and Kenneth Kujawa of National Grid both spoke as members of the local expert panel discussing their experiences and answering questions on their practical hands-on experience with EVSE.

All of the presenters for this panel were then reassembled as a group to discuss their experiences. There were few questions asked. Primary discussion on the panel was among the panelists who were elaborating upon one another's experiences. Guests were attentive and the presentations were well received.

At the close of the event, guests were invited to see the BNMC electric vehicle charging station in person. Approximately 15 people opted to see the installation in person. Additional conversation occurred at the installation site and again guests found the installation demonstration very interesting.

## GENESEE REGION (ROCHESTER)

On Thursday June 6th at the Monroe Community College Applied Technologies Center, Genesee Region Clean Communities (GRCC) hosted a Seminar on Electric Vehicle Supply Equipment (EVSE) which was sponsored by NYSERDA with support from the International Brotherhood of Electrical Workers (IBEW) and the International Association of Electrical Inspectors (IAEI). During the morning, eight speakers and panelists were on hand to share their insights on planning for and installing Electric Vehicle chargers, as well as to address a range of questions from the audience. The seminar began with introductory remarks by Linda Hardie of NYSERDA and David Keefe of Genesee Region Clean Communities. Attendees were informed about the work of each organization and given an overview of EV activity in the region. Brian Roy of Energetics delved into some specific technical considerations for EVSE. Following a break, the room was then split into two groups: Municipal Planners and Building Code Officials, Electrical Installers and Inspectors for two separate panel talks. The audience was composed of 23 individuals who represented a broad cross-section of



area leaders and included local business owners, fleet managers, code enforcement officers, electricians, engineers and planners from several local municipalities. Many had already begun to use alternative fuels and were able to share stories of success, and relate some of the financial and environmental benefits they had incurred by reducing their dependency on oil. Both panel discussions were robust, lively and generally related to local, practical considerations for EVSE such as parking policies and other technical matters.

## WESTCHESTER

On Monday June 17<sup>th</sup>, Empire Clean Cities coordinated the EVSE Workshop at NYPA. A total of 34 attendees signed-in for the workshop out of the 47 registered – with a few walk-ins and no shows. The workshop had a total of 27 registered for Planners and Officials and 20 total registered for Installers and Inspectors. The breakout session was proportionally broken up among the 34 signed-in attendees. Some of the key topics during Q&A in the Planners and Officials included specific permitting and protocols hindering infrastructure development, the need for marketing to entice more infrastructure investment, and the lack of succinct resources and guidance in installing EVSE for public or private use. The workshop concluded with a visit of a Level-1 Charging station as well as a Chevy Volt at NYPA.

### Challenges

- Expectations of timing and format were not communicated/defined clearly and succinctly – Deadlines & preferred formats for workshop, invitation/save the dates/agendas, panelist confirmations
- Role of support team in the scope of project – were they advisors and experts in the given topic (Installers and Inspectors), or did they hold a greater role in terms of coordinating with confirmed panelists to align everyone together for the specific Installers and Inspectors breakout session?
- Lack of understanding of the structure of workflow/roles between Clean Cities and project team
- Lack of time for preparation and marketing for the workshop

### Recommendations

- Clearly define roles and flow of the workshop process early on, from pre-workshop outreach and coordination to workshop execution day-of
- Over communicate, confirm and double confirm between key players on the structure of the day. Set preferred materials/workshop format succinctly ahead of time
- Project team to take more lead in guiding format and structure of workshop – due to nature of topic and different workflows between the regional Clean Cities, project team leader's multiple experience across the different workshops can be helpful

## LONG ISLAND

The Electric Vehicle Supply Equipment Workshop for the Greater Long Island Clean Cities Coalition took place in Salten Hall at New York Institute of Technology's Old Westbury campus on Tuesday, June 18, 2013. Since the registrations for the Planners/Building Code Officials group was



considerably larger than for the Electrical Installers/Inspectors, we did not have separate breakout sessions. Instead, we kept all attendees together for the entire program. For the first half of the program, presentations were given by Dominick A. Longobardi/GLICCC (*Electric Vehicles in NY/LI*), Bryan Roy/Energetics (*EVSE Considerations*) and Adam Ruder/NYSERDA (*Electric Vehicles in New York – An Introduction*). Following a break, there was a presentation by Adam Lubinsky/WXY Design Studio (*Planning Considerations for EVs*). This was followed by the two panel discussions. The first was a Local Expert Panel for Electrical Installers and Inspectors, featuring Robert Ceriello, P.E. of Certified Electrical Inspections, Inc., John Guadagno of IBEW Local 25 and Edward Werbeck of Leviton. This was a strong panel. Each person was knowledgeable and dedicated to their work, offering detailed explanations of their job functions and responsibilities. Although there were not a lot of installers or inspectors in attendance, there were a number of questions for them. The second was Local Expert Panel for Planners and Building Code Officials, featuring Terese Kinsley of the Town of Huntington and Mark Schwarz of the Town of Hempstead. As there were more planners attending, there were more questions in this section. After the workshop, a number of the attendees took a tour of the school's level 1 charging station. There was also a Chevrolet Volt on display. The feedback we have received from attendees has been positive.

### CAPITAL DISTRICT (ALBANY)

First, Adam Ruder from NYSERDA provided a basic overview of EVs and EVSE. His presentation included a summary of the programs in place now to support EVs and EVSE. Adam spoke of EV planning projects including the TCI Readiness Plan and the DOE EV planning grant. He touched upon EV ready building codes and best practices for EVSE siting and design, signage and permitting.

Jennifer Ceponis from Capital District Clean Communities (CDCC) provided an overview of regional EV activity. She described the EV outreach efforts of CDCC and EVSE site considerations. These site considerations were compared to the current EVSE stations in the Capital Region, and what stations are doing in our area for signage and proximity to traffic and pedestrians. Jen also gave an overview of what EV owners are saying about charging stations around the Capital Region.

Brian Roy from Energetics offered an overview of EVs and EVSE considerations. He first went over EV terminology and different charging connectors. Then, he explained different charging units and what unit is best for different charging scenarios. Brian discussed the possibility of fees for charging EVs. Finally he discussed EVSE installation, best practices, codes and permitting.

The attendees then broke for coffee and donuts. During the break, they were given a tour of the NYSERDA charging stations and could view a Nissan Leaf and a Chevrolet Volt.

The local expert panel was next with Rick Catalado from the Local IBEW, John Sterret from Smart Center Latham, John Dorran from Plugin Stations Online, Joe Berman from Golub Corporation and Neil Miller from Leviton. The attendees explained their experiences with EVs and installing EVSE. Attendees asked about opportunities for electrical worker EVSE training and certification. Attendees were also curious about what municipalities can do to encourage EVSE. There was also significant discussion about what could go wrong in an EVSE installation and what could be done to avoid mistakes. Attendees also had questions about what happens to EVs in power outages; disconnect switches on EVSE, zoning and permitting.



First, Kari Hewitt a Sustainability Planner from VHB, provided an overview of the Albany Electric Vehicle Feasibility Study. She spoke about funding for the study, outcomes of the study, and opportunities for EVs in Albany. She discussed the steps to take to get Albany EV ready including permitting, EV-friendly zoning, codes and other policies. Next, she explained the site evaluation methods for the best EVSE locations for the study and the recommended sites the study found including The Spectrum Theater, Westgate Plaza and Lark Street. Kari also touched upon education and outreach, working with utilities and incorporation EVs into municipal fleets.

Doug Melnick, the Director of the Mayor's Office of Energy and Sustainability for the City of Albany explained the current efforts of the city of Albany to promote EVs including current EVSE installations.

Jennifer Ceponis from Capital District Clean Communities (CDCC) provided an overview of regional EV activity. She described the EV outreach efforts of CDCC and EVSE site considerations. These site considerations were compared to the current EVSE stations in the Capital Region, and what stations are doing in our area for signage and proximity to traffic and pedestrians. Jen also gave an overview of what EV owners are saying about charging stations around the Capital Region.

Adam Ruder from NYSERDA provided a basic overview of EVs and EVSE. His presentation included a summary of the programs in place now to support EVs and EVSE. Adam spoke of EV planning projects including the TCI Readiness Plan and the DOE EV planning grant. He touched upon EV ready building codes and best practices for EVSE siting and design, signage and permitting. Adam then elaborated on municipal planning for EVs. He explained what municipalities can do including zoning and policies to promote EVs.

Questions about the presentations focused on the price and popularity of EVs. Additionally, planners asked about funding opportunities for municipalities, and examples of what other municipalities are doing across the country to encourage EVs.

## WORKSHOP ATTENDANCE ANALYSIS

A total of 170 people were in attendance at the six regional workshops: Figure 1 shows the breakdown of attendees for each of the six meetings. (Included in these counts were the presenters and panel members as well as the intended meeting audience.) As Figure 1 shows, attendance ranged from 22 in Albany to 36 in Westchester. The Albany meeting attendance only included installers and inspectors, as the meeting host had already arranged for a separate workshop to address the needs of the inspector and building code official audience.

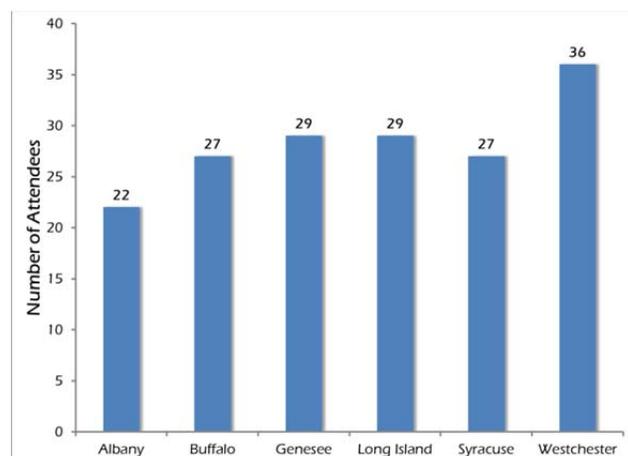
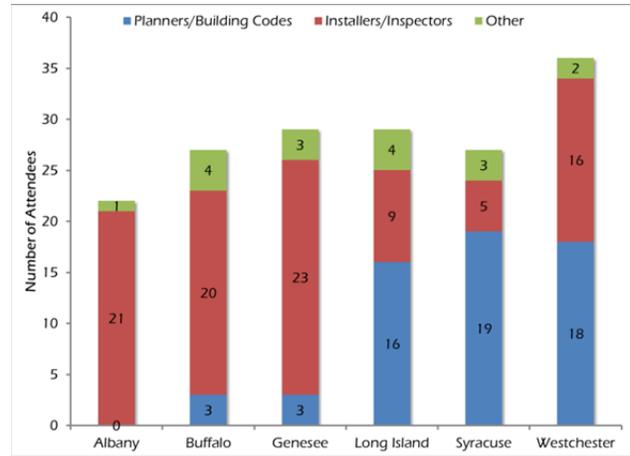


FIGURE 1. ATTENDANCE OVERVIEW



The balance of attendees between installers/inspectors, planners/building code officials, and other attendees (chiefly NYSERDA and the project team members who were not specifically assigned to a group) is shown in Figure 2 for each meeting location. It should be noted that not all of the meeting organizers provided specific tagging for each attendee's preferred breakout session, so the specific split between installer/inspector and planner/building code official sessions is estimated. Overall, the meetings drew 94 attendees for the installer/inspector sessions, and 59 for the planner/building code sessions. (The remaining 17 attendees were presenters or project team members not assigned to a session.)



## SUMMARY

The feedback received from the series of workshops was generally positive, and attendance levels met project team expectations. The workshop process enabled local Clean Cities coordinators to connect with potential new stakeholders from IAEE, IBEW, and other members of the communities in attendance.



## APPENDIX A: WORKSHOP AGENDAS

---

The workshop agendas for each meeting are provided in the pages that follow, in the order shown below.

1. Central New York (Syracuse)
2. Western New York (Buffalo)
3. Genesee Region (Rochester)
4. Westchester
5. Long Island
6. Capital District (Albany)



## APPENDIX B: ATTENDEES LIST

---

### CENTRAL NEW YORK (SYRACUSE)

<b>Last Name</b>	<b>First Name</b>	<b>Company</b>	<b>Participant Role</b>	<b>Participant Type</b>
<b>Arzoulan</b>	Ed	Bates Troy	Attendee	Planners/Code Officials
<b>Beckhusen</b>	Cindy	Town of Clay	Attendee	Planners/Code Officials
<b>Benson</b>	Tim	Syracuse COE	Attendee	Planners/Code Officials
<b>Carr</b>	Barry	CC of CNY	Presenter	Other
<b>Carrick</b>	Chris	CNY RPDB	Presenter	Planners/Code Officials
<b>Carrigan</b>	Patrick	Beam Mack – Syr	Attendee	Installer/Inspector
<b>Clinkhammer</b>	Aimee	Syracuse COE	Attendee	Planners/Code Officials
<b>Closson</b>	Louis	Beam Mack – Syr	Attendee	Installer/Inspector
<b>Condon</b>	James	Town of Clay	Attendee	Planners/Code Officials
<b>Conlon</b>	James	Town of Dewitt	Attendee	Planners/Code Officials
<b>DeSoto</b>	Jeff	IBEW	Presenter	Installer/Inspector
<b>Gorman</b>	Chris	National Grid	Attendee	Planners/Code Officials
<b>Humphrey</b>	Gregg	Village of Baldwinsville	Attendee	Planners/Code Officials
<b>Macrae</b>	Brian	Synapse Partners	Attendee	Installer/Inspector
<b>Mitchell</b>	Russell	Town of Clay	Attendee	Planners/Code Officials
<b>Nicholas</b>	Robert	Tompkins Cty Airport	Attendee	Planners/Code Officials
<b>Palumbo</b>	James	Tompkins Cty	Attendee	Planners/Code Officials
<b>Roy</b>	Bryan	Energetics Incorporated	Presenter	Other
<b>Ruder</b>	Adam	NYSERDA	Presenter	Other
<b>Stephens</b>	Sarah	Synapse Partners	Presenter	Planners/Code Officials
<b>Stevenson</b>	Craig	CEIS	Attendee	Installer/Inspector
<b>Straile</b>	Chris	Syracuse COE	Attendee	Planners/Code Officials
<b>Strehle</b>	Jim	Tompkins Cty	Attendee	Planners/Code Officials
<b>Trendowski</b>	John	C&S Engineers	Attendee	Planners/Code Officials
<b>Wafer</b>	Maureen	Town of Dewitt	Attendee	Planners/Code Officials
<b>Walters</b>	Bruce	Bliss Environment	Attendee	Planners/Code Officials
<b>Windauer</b>	Paul	Town of Lysander	Attendee	Planners/Code Officials

**WESTERN NEW YORK (BUFFALO)**

<b>Last Name</b>	<b>First Name</b>	<b>Company</b>	<b>Participant Role</b>	<b>Participant Type</b>
<b>Cowan</b>	Tom	Town of Newstead	Attendee	Installer/Inspector
<b>Enderby</b>	Tim	Empire Inspections	Attendee	Installer/Inspector
<b>Falkowski</b>	Christine	Town of Newstead	Attendee	Installer/Inspector
<b>Guenther</b>	Herbert	URS Corporation	Attendee	Installer/Inspector
<b>Hardie</b>	Linda	NYSERDA	Presenter	Other
<b>Harzewski</b>	Darrin	CIR Electric	Attendee	Installer/Inspector
<b>Heimiller</b>	Carl	Town of Tonawanda Building Dept.	Attendee	Planners/Code Officials
<b>Hilmey</b>	Matt		Attendee	Installer/Inspector
<b>Hoffman</b>	Larry	Town of Tonawanda	Attendee	Installer/Inspector
<b>Jackson</b>	Craig	Clean Communities of WNY	Attendee	Other
<b>Johnson</b>	Curtis	IBEW Local 41	Presenter	Installer/Inspector
<b>Kujawa</b>	Ken	National Grid	Attendee	Installer/Inspector
<b>Lubinsky</b>	Adam	WXY Design Studio	Presenter	Planners/Code Officials
<b>MacKenzie</b>	Alan	Town of Tonawanda	Attendee	Installer/Inspector
<b>Marshall</b>	Scott	Town of Amherst	Attendee	Installer/Inspector
<b>McGovern</b>	Mark	BNMC	Presenter	Installer/Inspector
<b>Migliaccio</b>	Ralph	Town of Newstead	Attendee	Installer/Inspector
<b>Miller</b>	Dave		Attendee	Other
<b>Murphy</b>	Michael	Town of Tonawanda Building Dept.	Attendee	Installer/Inspector
<b>Nelson</b>	Alan	Atlantic Inland	Attendee	Installer/Inspector
<b>Pedro</b>	Jeff	CIR Electric	Attendee	Installer/Inspector
<b>Putzbach</b>	Charles	Town of Elma	Attendee	Installer/Inspector
<b>Rogalski</b>	Joanna	FreeLance	Attendee	Installer/Inspector
<b>Roland</b>	Matthew	Iskalo Development Corp.	Attendee	Installer/Inspector
<b>Roy</b>	Bryan		Presenter	Other
<b>Williamson</b>	Jeffrey	Ferguson Electric	Presenter	Installer/Inspector
<b>Witulski</b>	Gary	City of Buffalo Office of Strategic Planning	Attendee	Planners/Code Officials



## Genesee Region (Rochester)

Last Name	First Name	Company	Participant Role	Participant Type
<b>Bovenzi</b>	Joseph	Genesee Transportation Council	Attendee	Planners/Code Officials
<b>Bruner</b>	Chas	Town of Ithaca	Attendee	Installer/Inspector
<b>Bundoc</b>	Ross	Landmark Electric Co.	Attendee	Installer/Inspector
<b>Corcoran</b>	Russ	Landmark Electric Co.	Presenter	Installer/Inspector
<b>Davies</b>	Dirk	City of Geneva	Attendee	Installer/Inspector
<b>Decker</b>	John	John Decker Electric	Attendee	Installer/Inspector
<b>Farron</b>	Bob	IAEI	Presenter	Installer/Inspector
<b>Gargano</b>	Neil	Gargano Electric	Attendee	Installer/Inspector
<b>Hardie</b>	Linda	NYSERDA	Presenter	Other
<b>Henecke</b>	Fred	Town of Pompey	Attendee	Installer/Inspector
<b>Hoot</b>	Chris	Connors-Haas Inc.	Attendee	Installer/Inspector
<b>Intini</b>	Joe		Attendee	Installer/Inspector
<b>Kanauer</b>	Bob	LTHS Solar	Attendee	Installer/Inspector
<b>Keefe</b>	David	Genesee Region Clean Communities	Presenter	Other
<b>Kelly</b>	Martin	Town of Ithaca	Attendee	Installer/Inspector
<b>Kofal</b>	Floyd		Attendee	Installer/Inspector
<b>Kreckman</b>	Jim	Town of Penfield	Attendee	Installer/Inspector
<b>Lavine</b>	Bill		Attendee	Installer/Inspector
<b>Lawson</b>	Dave	Landmark Electric Co.	Attendee	Installer/Inspector
<b>Marrale</b>	Al	Town of Penfield	Attendee	Installer/Inspector
<b>Merriam</b>	Daniel	Self	Attendee	Installer/Inspector
<b>Morse</b>	James		Attendee	Installer/Inspector
<b>Moser</b>	Mike	MyFleet Department	Presenter	Installer/Inspector
<b>Odell</b>	Calvin	Alfred State College	Attendee	Installer/Inspector
<b>Pawlak</b>	Norman	Bergen Planning Board	Attendee	Planners/Code Officials
<b>Roy</b>	Bryan	Energetics Incorporated	Presenter	Other
<b>Smith</b>	Philip	IBEW Local 46	Presenter	Installer/Inspector
<b>Thomann</b>	Jayme	Genesee Finger Lakes Regional Planning Council	Attendee	Planners/Code Officials
<b>Vanderwall</b>	Julie	fl Health	Attendee	Installer/Inspector

**WESTCHESTER**

<b>Last Name</b>	<b>First Name</b>	<b>Company</b>	<b>Participant Role</b>	<b>Participant Type</b>
<b>Boender</b>	Robert	City of Stanford	Attendee	Planners/Code Officials
<b>Booth</b>	Joe	NEEAA	Attendee	Installer/Inspector
<b>Brady Jr</b>	Edward J	Pettison Planning Board	Attendee	Planners/Code Officials
<b>Butkovich</b>	Larry	Fuji Electric	Attendee	Planners/Code Officials
<b>Conte</b>	Anthony	Ace Electrical Services LLC	Attendee	Installer/Inspector
<b>Cowen</b>	Mark		Attendee	Installer/Inspector
<b>Duquesne</b>	Garrett	Town of Greenburgh Planning	Attendee	Planners/Code Officials
<b>Ellman</b>	Lee	City of Yonkers	Attendee	Planners/Code Officials
<b>Franciosa</b>	Stephen	Solar Express Energy	Attendee	Installer/Inspector
<b>Greenwood</b>	Walter	EMF Controls	Attendee	Installer/Inspector
<b>Herbert</b>	Lukas	City of Westchester	Attendee	Planners/Code Officials
<b>Iannetta</b>	Jill	City of White Plains	Attendee	Planners/Code Officials
<b>Jacobs</b>	Craig	IBEW Local #363	Attendee	Installer/Inspector
<b>Kattan</b>	Spiro	New York City Department of Sanitation	Attendee	Installer/Inspector
<b>Kloeckener</b>	Sharon	Eaton Corporation	Attendee	Planners/Code Officials
<b>Krieger</b>	Erika	NYC Department of Sanitation	Attendee	Planners/Code Officials
<b>Lubinsky</b>	Adam	WXY Design Studio	Attendee	Planners/Code Officials
<b>Markowitz</b>	John	NYPA	Presenter	Planners/Code Officials
<b>McGill</b>	Charles	Leviton	Attendee	Installer/Inspector
<b>Mecca</b>	Dan	IBEW Local #3	Attendee	Installer/Inspector
<b>New</b>	James	Healy Electric Contracting	Presenter	Installer/Inspector
<b>Ng</b>	Kyle	Metro-North Railroad	Attendee	Planners/Code Officials
<b>Nicoletti</b>	Bud	City of White Plains	Presenter	Installer/Inspector
<b>Nislick</b>	Steve	Edison Properties LLC	Presenter	Planners/Code Officials
<b>Pannullo</b>	Frank	NYC Department of Sanitation	Presenter	Installer/Inspector
<b>Pilarinos</b>	Ariadne	AAC Designs	Attendee	Planners/Code Officials
<b>Redzeposki</b>	Lucy	IBEW	Attendee	
<b>Rooney</b>	John	MJ Rooney Electrical Contractor	Attendee	Installer/Inspector
<b>Rooney</b>	Michelle	MJ Rooney Contractor	Attendee	Installer/Inspector
<b>Roy</b>	Bryan	Energetics Incorporated	Presenter	Other



<b>Last Name</b>	<b>First Name</b>	<b>Company</b>	<b>Participant Role</b>	<b>Participant Type</b>
<b>Ruder</b>	Adam	NYSERDA	Presenter	Other
<b>Shifman</b>	Anatoly	Trio Energy Group	Attendee	Planners/Code Officials
<b>Subburamu</b>	Karuppanan	NYCT_MTA	Attendee	Planners/Code Officials
<b>Timoney</b>	Caitlin	Metro-North Railroad	Attendee	Planners/Code Officials
<b>Troyer</b>	Ron	Lippolis Electric	Attendee	Installer/Inspector
<b>Vatsky</b>	Art	Evia LLC	Attendee	Planners/Code Officials

**LONG ISLAND**

Last Name	First Name	Company	Participant Role	Participant Type
<b>Adetosoye</b>	Adebayo	NYIT	Attendee	Planners/Code Officials
<b>Bailey</b>	Michael	Village of Malverne	Attendee	Planners/Code Officials
<b>Barry</b>	Kevin T.	Inc. Village of Garden City	Attendee	Planners/Code Officials
<b>Barton 3rd</b>	Howard	Town of Smithtown	Attendee	Planners/Code Officials
<b>Blanchet</b>	Bernard	NYIT - Energy Management	Attendee	Planners/Code Officials
<b>Bono</b>	Tara	EmPower Solar	Attendee	Installer/Inspector
<b>Ceriello</b>	Robert	Certified Electrical Inspection, Inc.	Presenter	Installer/Inspector
<b>Dambrosio</b>	Vincent	LIJATC	Attendee	Installer/Inspector
<b>Drummond</b>	Clement	Bronx Community College	Attendee	Installer/Inspector
<b>Falas</b>	Anastasios	NYIT	Attendee	Planners/Code Officials
<b>Gomez</b>	Angel	Village of East Hills	Attendee	Planners/Code Officials
<b>Guadagno</b>	John	IBEW Local 25	Presenter	Installer/Inspector
<b>Gulmi</b>	Ron	Emerald Alternative Energy So	Attendee	Other
<b>Karpf</b>	Jason		Attendee	Other
<b>Kinsley</b>	Terese	Town of Huntington	Presenter	Planners/Code Officials
<b>Kirkland</b>	Elizabeth	Town of Brookhaven	Attendee	Planners/Code Officials
<b>Longobardi</b>	Dominick	Town of Hempstead	Presenter	Other
<b>Lubinsky</b>	Adam	WXY Design Studio	Attendee	Planners/Code Officials
<b>Massaro</b>	Robert J	LIPA	Attendee	Planners/Code Officials
<b>Mui</b>	Ming	LIPA	Attendee	Planners/Code Officials
<b>Murray</b>	Allyson	Town of Smithtown	Attendee	Planners/Code Officials
<b>Oowski</b>	Donald	Village of East Hills	Attendee	Planners/Code Officials
<b>Roy</b>	Bryan	Energetics Incorporated	Presenter	Other
<b>Ruder</b>	Adam	NYSDERDA	Presenter	Planners/Code Officials
<b>Schwarz</b>	Mark	Town of Hempstead	Presenter	Planners/Code Officials
<b>Vourlos</b>	Andrew	UL	Attendee	Installer/Inspector
<b>Werbeck</b>	Edward J	Leviton	Presenter	Installer/Inspector
<b>Werner</b>	Jon	Leviton	Attendee	Installer/Inspector
<b>Woodroof</b>	Anna	SCWA	Attendee	Installer/Inspector



## Capital District (Albany)

<b>Last Name</b>	<b>First Name</b>	<b>Company</b>	<b>Participant Role</b>	<b>Participant Type</b>
<b>Aguero</b>	Luis	Village of Scotia	Attendee	Installer/Inspector
<b>Berman</b>	Joseph	Golub Corp.	Presenter	Installer/Inspector
<b>Blakeslee</b>	Chris	GE	Attendee	Installer/Inspector
<b>Borisenko</b>	Paul	Town of Glenville	Attendee	Installer/Inspector
<b>Burns</b>	Michael	Town of Glenville	Attendee	Installer/Inspector
<b>Cataldo</b>	Richard	IBEW 236	Presenter	Installer/Inspector
<b>Dillworth</b>	David	Dave Dillworth	Attendee	Installer/Inspector
<b>Doran</b>	John	Plug In Stations Online	Presenter	Installer/Inspector
<b>Feldman</b>	David	Silver Bear Energy	Attendee	Installer/Inspector
<b>Harbinger</b>	Justin	Town of Bethlehem	Attendee	Installer/Inspector
<b>Katz</b>	Howard	Leviton	Attendee	Installer/Inspector
<b>Knutson</b>	Peter	City of Schenectady	Attendee	Installer/Inspector
<b>Kronau</b>	Peter	Centuray Solar Supply	Attendee	Installer/Inspector
<b>McGlynn</b>	Michael	Public	Attendee	Installer/Inspector
<b>Middleton</b>	Tom	City of Schenectady	Attendee	Installer/Inspector
<b>Miller</b>	Neil	Leviton	Presenter	Installer/Inspector
<b>Moglia</b>	George	Plug In Stations Online	Attendee	Installer/Inspector
<b>Redzeposki</b>	Lucy	IBEW JATC's	Attendee	Installer/Inspector
<b>Rice</b>	David	Town of Bethlehem	Attendee	Installer/Inspector
<b>Roy</b>	Bryan	Energetics Incorporated	Presenter	Other
<b>Smith- Lemmon</b>	Colleen		Attendee	Installer/Inspector
<b>Williams</b>	David	MDIA EV Inspector	Attendee	Installer/Inspector