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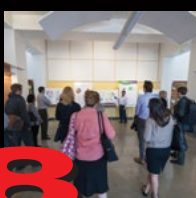
IDEX Global Wires  
Mercedes Benz Research  
And Development North  
American Headquarters



Red Top Electric, Energy ETC,  
And Others Integrate Zero  
Net Energy Center



IBEW/ NECA Officials  
Discuss Origins Of The Zero  
Net Energy Building



Take A Tour Of The Zero Net  
Energy Center!

And  
more...



A publication of the National Electrical  
Contractors Association (NECA) and the  
International Brotherhood of Electrical  
Workers (IBEW) of Northern California.



PHOTO COURTESY OF NORCAL NECA

*The Zero Net Energy Center in San Leandro opened May 20, 2013 and has its own website, [www.znecenter.org](http://www.znecenter.org).*

## Local IBEW-NECA Officials Open Retrofitted Zero Net Energy Center In San Leandro That Inspires The Nation!

***IBEW-NECA Sound And Communications Contractors Point One, Signawest Systems, Energy ETC, Red Top Electric, Lloyd F. McKinney Associates And Niles Electric Integrate And Automate ZNE Building Control Systems And Labs***

It's all in the retrofit!

Alameda County IBEW-NECA officials Byron Benton, Don Campbell and Victor Uno needed a bigger building so they could double the classroom space for their Joint Electrical Training Center (JATC). They also wanted the expanded JATC facility to make a lasting impact on behalf of green energy, both in California and across the country.

To reach both goals, the three officials spearheaded the renovation and retrofitting of an aging 30-year-old office building at 14600 Catalina Street in San Leandro, turning it into a model Zero Net Energy (ZNE) facility and training center. Combining energy efficiency techniques and clean renewable energy technologies, the new 46,000 square foot ZNE Center cuts energy usage for buildings of its type by 70% and reduces the carbon footprint 175 tons per year. All the energy used in ZNE buildings is produced on site and ZNE buildings produce as much or more energy than they consume.

"Green technology is here to stay," said Victor Uno, Business Manager of the International Brotherhood of Electrical Workers (IBEW) Local 595, and Don Campbell, Executive Director of the Northern California chapter of the National Electrical Contractors Association



*Bob Wallace, President Energy ETC, details the many different energy saving features displayed on the Energy Dashboard at the ZNE Center.*

(NECA). "We have to be ready for it."

The IBEW-NECA training facility is one of the largest ZNE buildings in California. It's also one of the first retrofits ever to be recognized by the U.S. Department of Energy as meeting requirements for a zero net energy building. ***(To see how this ZNE training center cuts energy usage, check out the illustration on pages 4-5)*** The ZNE Center was formally opened in May 2013 by Governor Jerry Brown and is frequently

toured by officials from other states and countries around the world who hope to open similar facilities.

Its energy efficiency program was designed in consultation with Bernie Kotler, IBEW-NECA's statewide director for green energy solutions. "All of us in the construction industry have a responsibility to do what we can for society," said Kotler. "Climate change is upon us. There is no better way to eliminate carbon emissions in the built environment than a Zero Net Energy facility." Kotler added that the State of California has mandated that all new commercial construction built beginning in 2030 be zero net energy. "This building advances the state's energy policies and helps us be more competitive economically. It also demonstrates how tens of thousands of new jobs can be created by making existing buildings much more energy efficient."

*(Continued on Page 6)*

**To find a NECA-IBEW Union Contractor go to [www.norcalvdv.org](http://www.norcalvdv.org)**





# Mercedes Selects IDEX Global Services To Build Out The Structured Cabling System For Its National R&D Headquarters In Sunnyvale

Mercedes-Benz, who makes some of the most technologically advanced vehicles in the world, depends on research and development to keep it on the cutting edge.

As part of its R&D expansion, the company just opened the new Mercedes-Benz Research & Development North American (MBRDNA) Headquarters in Sunnyvale and retained design/build cabling contractor IDEX Global Services, Inc. of San Francisco to build out a sophisticated cabling infrastructure that would accommodate its special R&D needs.

IDEX, which also supports many of the top U.S. companies on a national and international basis with turnkey technology services, had the design/build expertise



*The front lobby of the Mercedes-Benz R&D facility features prototypes from Mercedes past and future.*

to facilitate the luxury car maker’s emphasis on telematic and infotainment-related R&D, i.e., its continued expansion of Internet integration into its vehicles.

“IDEX helped us design and install a new high performance 10 gigabyte Local Area Network-LAN-backbone and 1Gb to the desk,” said Guillaume Bardin, the Director of IT and Engineering Support Operations for Mercedes. “IDEX implemented this network design, and selected and installed high quality equipment. You can buy cheap Cat6 Ethernet cables and you can buy high quality cables. IDEX was very good at providing us cabling for the quality requirements that we had.”

The three-story MBRDNA Headquarters, located in a new 71,715 sq. ft. building at 309 N. Pastoria Ave, helps Mercedes attract top R&D talent from Silicon Valley. Some 200 employees currently work in the company’s R&D division, with around 100 at the Silicon Valley address.

IDEX began the design phase of the cabling project in February 2013, and completed the installation late last year. Sean Canon, President – Western Region of IDEX Global Services, said that during the initial review of the project, IDEX created a comprehensive solution to the structured cabling system requirements, with a build-out to all parts of the facility, including offices, conference rooms, engineering and R&D testing areas.



*The server room is located on the first floor of the building and the IDF is located on the third floor. The server room feeds communications cabling to both the 1st and 2nd floors.*

“Our relationships with manufacturers and suppliers allow us to offer the most competitive price for the solution that we are proposing,” said Canon. “Our solutions extend performance far in excess of industry standards. This ensures easy growth for the system, combined with simplified network management.”

Canon said the design of the project included a server room, a single IDF and an extensive copper/fiber backbone. The server room is located on the first floor of the building and the IDF is located on the third floor. The server room feeds communications cabling to both the 1st and 2nd floors.





The structured cabling system design enabled IDEX to terminate the 2nd floor cabling in the server room below. IDEX used some 300,000 feet of cabling throughout the building, with approximately 500 cables per floor. IDEX worked with six technicians from the International Brotherhood of Electrical Workers (IBEW) Local 551 and (IBEW) Local 595 to complete the installation.

“The majority of the work stations are floor fed, so it’s easier to route the cable up to the 2nd floor, rather than have to go all the way around,” said Canon. IDEX worked with Channel Performance during the design and implementation process to install a UPS (uninterruptable power supply) system, which was placed on the second floor and serves both the server room on the first floor and the IDF on the third floor as a backup power supply.



**IDEX used some 300,000 feet of cabling throughout the building, with approximately 500 cables per floor.**

Canon said one of the challenges of working on the building was the fact that a majority of the ceilings throughout the facility were finished and had minimal drop tile. This required IDEX to design a pathway and plan for future add-ons throughout the space.



**IDEX Global Services, Inc. team members include:**  
**REAR LEFT TO RIGHT: Dan Peixotto, Operations Manager; Sean Canon, President - Western Region; Nathan Boyd, Account Manager**  
**FRONT LEFT TO RIGHT: Jeff Willey, Project Manager; Eddie Gonzalez, Senior Project Manager**

“Because of the finished ceiling, we needed to design a pathway for the structured cabling system that enabled future growth,” said Canon. “Along with Redwood Electric, we designed a pathway that would allow for easy installation of cabling in the future without having to remove finished ceiling areas.”

IDEX used a modular patch panel system, which permits the insertion of different media types (Cat6 or Cat6A, AV Type, etc.) into the same patch panel, so it’s a flexible solution that will enable ease of growth, as well as flexibility within the server room. “The angled patch panels create a high density solution,” said Canon. “We’re able to get more terminations within a smaller footprint within the rack, which enables us to limit the size requirements of the rack spacing in the IDF.”

**For more information, contact Sean Canon at IDEX Global Services ([scanon@idexgs.com](mailto:scanon@idexgs.com)) or call (415) 482-4242, ext. 301.**



**The structured cabling system design enabled IDEX to terminate the 2nd floor cabling in the server room below.**

**Mercedes-Benz Research & Development North America Headquarters Project Team:**

**CLIENT:**  
 Mercedes-Benz Research & Development Network  
 Guillaume Bardin, Director for IT and Engineering Support Operations

**ARCHITECT:**  
 IA Interior Architects

**GENERAL CONTRACTOR:**  
 Vance Brown Builders  
 Shawn Rankin, Project Manager

**ELECTRICAL CONTRACTOR:**  
 Redwood Electric Group

**STRUCTURED CABLING SYSTEM CONTRACTOR:**  
 IDEX Global Services, Inc.

**IDEX PROJECT TEAM:**  
 Sean Canon, President – Western Region  
 Eddie Gonzalez, Senior Project Manager  
 Nathan Boyd, Account Manager  
 Dan Peixotto, Operations Manager  
 Jeff Willey, Project Manager

**UPS (UNINTERRUPTABLE POWER SUPPLY) DESIGN CONSULTANT:**  
 Channel Performance  
 Andrew Klinman, President



# IBEW-NECA Creates One Of The Country's Largest Retrofitted Zero Net Energy Buildings; Renovates 1980's Structure In San Leandro To Reduce Energy Usage By Over 70%



Wind Turbines Monitoring Station



Solar Tree Energy Center



Main Electrical Room



Main Distribution Frame -  
Server Room

Wind Turbines

Energy Dashboard

Awning Windows



Glazing For Natural Light With  
Operable Windows For Ventilation



Sun-Tracking Solar Tree

Solar Powered Uplights

Entrance

Operable Windows For Natural Ventilation



**Zero Net Energy** construction is still a new concept in California and elsewhere in the nation—but IBEW and NECA in Northern California didn’t let that stop them from retrofitting a building near Oakland that dramatically reduces energy consumption. Working together, IBEW Local 595 and the NORCAL NECA Chapter rehabbed a 30-year-old, 46,000 square foot structure into a Zero Net Energy facility—the largest such retrofit building in California and the third largest in the U.S. Now serving as a training center for electrical apprentices, the ZNE building also hosts frequent tours for groups who want to know more about how to maximize energy efficiency. Renewable experts implemented a variety of technologies into the ZNE building, including solar panels, solar trees and wind turbines. They also utilized a number of other energy efficiencies, including natural lighting and ventilation, a solar thermal water system, and building automation to monitor and help reduce the energy load. These illustrations show the exterior and interior of the building and call out the various renewable systems and energy efficiency techniques used by IBEW/NECA to achieve the ZNE.



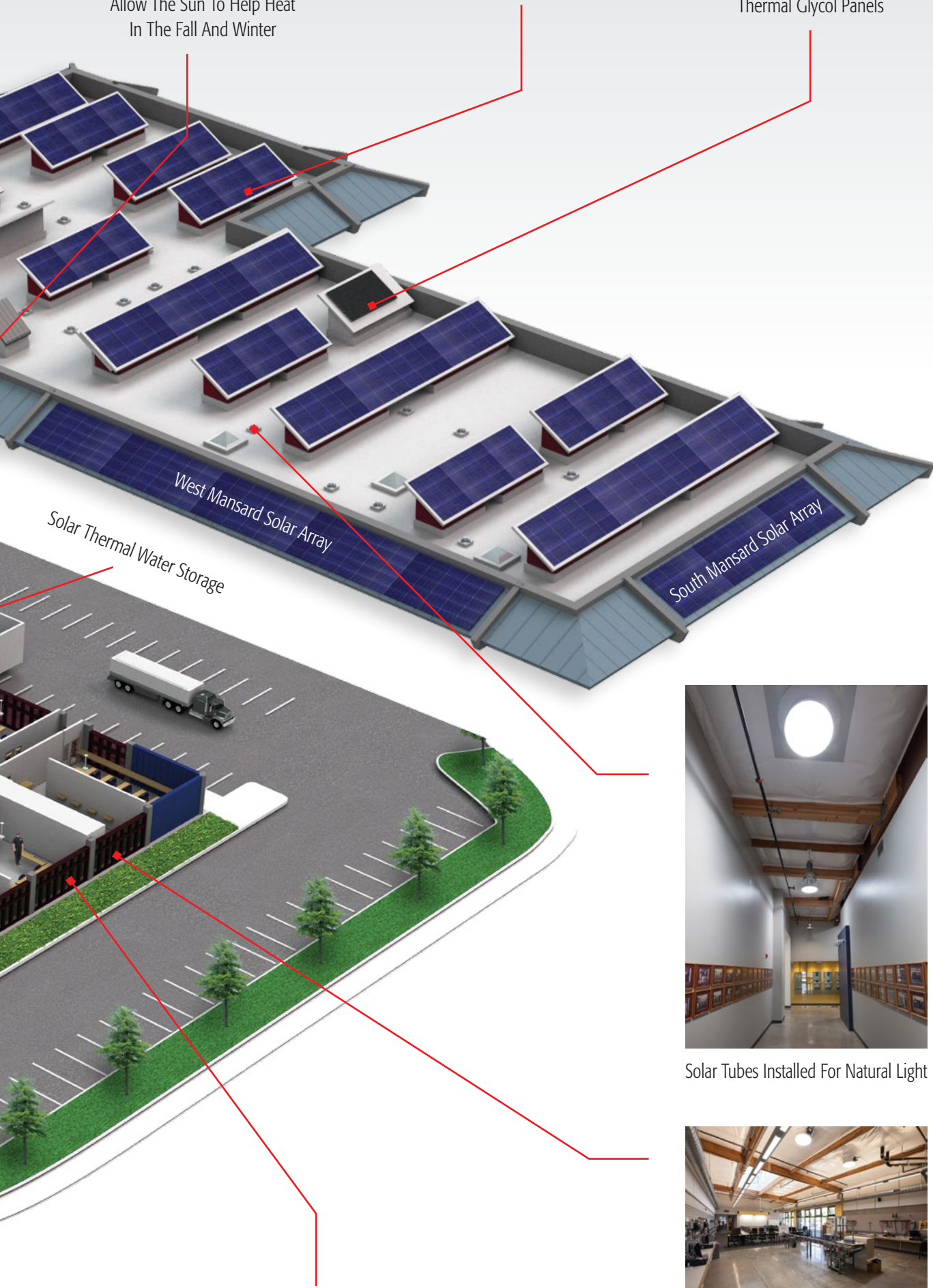
Thermal Wall Exposures To Allow The Sun To Help Heat In The Fall And Winter



Roof Monitors With PV Panels



Roof Monitors With Solar Thermal Glycol Panels



Solar Tubes Installed For Natural Light



Awning Windows Open Up To Let Fresh Air Come Into The Building

## ZNE Center Project Team:

- CLIENT:**  
IBEW Local 595 and NorCal NECA  
Victor Uno, IBEW Local 595 Business Agent  
Don Campbell, Executive Director, Northern California Chapter, National Electrical Contractors Association  
Byron Benton, Training Director, Alameda County Electrical JATC  
Bernie Kotlier, Director, Green Energy Solutions, NECA-IBEW LMCC
- ARCHITECT:**  
FCGA Architecture  
Galen Grant, President  
Ric Craig, CEO
- ENGINEERING:**  
Belden Consulting Engineers, Inc.  
Dennis Hay, President
- GENERAL CONTRACTOR TENANT IMPROVEMENTS:**  
Novo Construction  
Arne Ericson, Principal  
Jim Fowler, Principal
- GENERAL CONTRACTOR RENEWABLES:**  
Red Top Electric  
Michael Curran, President  
Zach Lee, Project Manager  
Jason Kaneko, Superintendent  
Brian Johnson, General FM  
Steve Arnold, Journeyman  
Wes Andrews, Journeyman  
Jordan Walker, Journeyman  
Antonio Milano, Journeyman  
Rafael Medrano, Journeyman  
Richard Zemlok, Journeyman  
Herman Tovar, Journeyman  
Brad Flanagan, Journeyman  
Gary Panighetti, Journeyman  
Todd Wylie, Journeyman  
Bret Ketchum, Journeyman  
Gaspar Gonzalez, Journeyman  
Steve Dolan, Journeyman  
Tim Wong, Journeyman  
Colton Bermingham, Apprentice  
Joshua Hall, Apprentice  
Tommy Bellew, Apprentice  
Gustavo Ramos, Apprentice  
Javier Briseno-Quintero, Apprentice  
Brian Shea, Apprentice
- ENERGY CONSULTANT:**  
Environmental Building Strategies  
Ryan Potvin, Owner  
Matt Macko, Principal  
Michael Hummel, Project Manager
- BUILDING AUTOMATION:**  
Energy ETC  
Robert Wallace, President
- AV INTEGRATION:**  
Point One  
Shane Stoltenberg, Director of Construction Services  
Dan Doan, Superintendent  
Tom Freitas, Senior Technician  
Gabriel Ceniceros, Senior Technician  
Nico Gueltig, Technician  
David Rivera, Technician  
Chris Singh, Technician
- Lloyd F. McKinney Associates, Inc.  
Ty McKinney, Project Manager  
Joe Niece, IBEW Local 595 Technician  
Frits Groenhuizen, System Engineer
- LIGHTING CONTROLS:**  
Red Top Electric  
Michael Curran, President
- LOW VOLTAGE DATA, SECURITY:**  
Signawest Systems Inc.  
Ron Kunkle, President
- RELOCATION AND INSTALLATION OF TRAINING LABS:**  
Niles Electric Co Inc  
Jody Brahmst, President  
Jim Philbrook, Foremen  
Greg Norgard, Foremen  
Sam Sandoval, Foremen  
John Coates, Journeyman Apprentice  
IBEW Local 595





# Local IBEW-NECA Officials Open Retrofitted Zero Net Energy Center

- Continued From Page 1

The architect for the ZNE Building was FDGA Architecture. Environmental Building Strategies was the energy consultant. Red Top Electric was the electrical contractor and renewable energy general contractor. **(A complete team list is on pages 4-5)**

"I really think this building is an example of what's possible and how we can make our existing buildings in this country more energy efficient," said Byron Benton, Training Director of the Alameda County Electrical JATC. "We train on these energy efficient systems and incorporate them in our training center as well."

The ZNE building, used primarily to train both apprentice and journey level electricians, has 14 training rooms and a Grand Lecture Hall that seats several hundred people. It is turning into a destination point for IBEW-NECA activities and industry efforts in general. It has hosted numerous tour groups ranging from Google executives to professors from China. Visitors have included the Counsel General of South Korea, several U.S. Congressmen and federal officials, the San Leandro Chamber of Commerce, and the Alameda County Mayors Conference.



**The ZNE building, with 14 training rooms, is used primarily to train both apprentice and journey level electricians. These students are being trained at workstations in the Dick Nordeen Tool Lab.**

With a complete menu of energy efficiency techniques, the building significantly reduces lighting, heating, HVAC and plug load consumption and then employs renewable energy producing technologies such as solar panels and wind turbines.

To help with energy efficiency, twenty-two 'dog house' roof monitors provide ambient light, support solar panel arrays and release warm air from the building's interior. As the wind blows, cool air naturally ventilates the building via

the first floor windows in the classrooms and releases the warm air through the roof monitors.

Several sound and communications contractors contributed to the building's AV installations, control systems and overall building integration. These included Point One, AV integration in the classrooms; Signawest Systems, data and security wiring; Energy ETC, master integration contractor; Red Top Electric, lighting controls; Lloyd F. McKinney Associates, AV for the Grand Lecture hall; and Niles Electric, transferring and integrating of the Center's training labs. These NECA contractors worked with technicians and electricians from Local 595.



**Byron Benton, Training Director Alameda County Electrical JATC with Dick Nordeen, whom the Tool Lab is named after at the ZNE Center.**

Energy ETC was the master systems integrator for the various energy systems in the building, which are graphically represented on the Energy Dashboard in the Lobby. These energy systems were integrated by Energy ETC into the energy management system platform Opendiem™, by Building Clouds™. Bob Wallace, President of Energy ETC said these energy systems encompassed controls for lighting, HVAC and window ventilation.

Point 1 installed Extron PoleVault® Systems AV switching equipment and integrated them within 12 classrooms. Shane Stoltenberg of Point 1 said the Extron AV Control PoleVault System enables easy-to-use AV switching and control systems for classrooms with a ceiling mounted projector. Lloyd F. McKinney Associates installed a Christie Digital projector into the Center's Grand Lecture hall and routed the audio to a portable PA. Frits Groenhuizen, a systems engineer for Lloyd F. McKinney, designed the space for optimum viewing distance and image area. The installation was performed by Joe Niece, IBEW 595 Technician.



**Jody Brahmst, President Niles Electric Co. and John Coates, Journeyman, responsible for relocating all six of the hands-on labs at the ZNE Center.**

Red Top Electric, who integrated the Lutron® lighting control system into the building automation system, also acted as the general electrical contractor for the building, as well as the general contractor for the renewable energy systems. ALR of Oakland designed the lighting control system. Mike Curran, President of Red Top Electric, said the lighting control system has occupancy sensors that work in each room to turn out lights when the room is vacated. Lutron graphic eye sensors regulate lighting levels in each room during the day. A control panel in each room allows teachers to override the sensors if they wish. Daylight sensors are installed throughout the building to monitor lighting levels.

Niles Electric transferred the student workstations from the old training center and set up nine practice labs in the ZNE Center. "The labs that we moved created a lab and classroom atmosphere so that students were being taught at the computer and then they could go do hands-on with the labs," said Jody Brahmst of Niles Electric.

Labs that were moved into ZNE classrooms included the building automation lab; advanced motor control lab; the low voltage transformers lab; the IBEW 9th District line voltage transformer lab; commercial lab stations; the residential and small conduit stations lab; the JW industrial motor control lab; the apprenticeship motor control lab and the lab volt motor control classroom.

**For more information, contact Byron Benton, Training Director, Alameda County Electrical JATC, at the Zero Net Energy Center (Bbenton@595jatc.org), or call (510) 351-5282.**



# IBEW/ NECA Officials Discuss The Origins Of The Zero Net Energy Building

*Victor Uno, Business Manager of the International Brotherhood of Electrical Workers (IBEW) Local 595, and Don Campbell, Executive Director of the Northern California chapter of the National Electrical Contractors Association (NECA), spearheaded the renovation of the country's largest retrofitted zero net energy center, located in San Leandro. We caught up with Victor and Don to ask them a few questions about how they managed to accomplish such a green energy milestone in Northern California!*



*Don Campbell, Executive Director, NorCal NECA details the key features of the Zero Net Energy Center and its importance toward training the next generation of electrical workers via the Joint Apprenticeship and Training Committee (JATC).*



*Victor Uno, Business Manager, IBEW Local 595, speaking at the official ribbon cutting of the Zero Net Energy Center.*

**Q: How did IBEW-NECA initiate the ZNE Project?**

**A: Victor Uno:** We saw that we had outgrown the current training facility. This was the first step for what would become the ZNE Center. A serious search for a site started in 2010, and Bernie Kotlier, IBEW-NECA's Director of Green Energy Solutions, broached the idea of building the training center as a net zero energy use building. It was a novel thought. There were just a handful of these net zero energy use buildings across the country.

**Don Campbell:** It's been a much bigger decision than we ever expected. The first decision was to go zero net; the second decision was how we got there. It's very easy to power up a building with solar panels and wind turbines. We're electrical contractors; we know how to power up a building. What sets this building apart and what has gotten all the attention is that we did not just power up a building. We did it through energy efficiency. We literally reduced power usage by 70% and this was the biggest decision we ever made. Then we added in the renewables, such as solar panels and wind turbines.

**Q: What role did your Board/Labor Management Cooperation Committee (LMCC) play in helping this building come to fruition?**

**A: Victor Uno:** Don Campbell and I brought this discussion to our JATC (Joint Apprenticeship Training Committee). As we looked at our training programs, and understood the evolution and future skills sets needed for smart, energy efficient buildings, the JATC Trustees embraced the concept of a net zero energy use building.

**Don Campbell:** The JATC was the single point of contact for the construction and the design. The LMCC Board helped us with additional funding, both through donations and through the establishment of a capital campaign.

**Q: What are the goals for the ZNE Center?**

**A: Uno:** Training, training, and training for our apprentices and journeymen. We are providing state-of-the-art classroom and hands-on instruction for our electrical trade, with special classes in energy efficiency, such as building automation, VFDs and advanced lighting controls.

**Campbell:** Training. Our number one goal is sustainable careers. It's exciting to be in a building that has the latest technology.

**Q: How does having a ZNE Building contribute to the quality of the training programs?**

**A: Uno:** The learning environment is qualitatively enhanced: natural light, fresh air, open lecture and hands-on training

areas. Apprentices and journeymen take great pride in the center, as they should. They understand why they and our NECA contractors are investing in our collective future.

**Campbell:** You're in a better learning environment. You're working in a natural environment with natural daylight. The environment has natural airflow and no white noise coming from air handling vents and no noise of air rushing thru vents. Studies have shown students do better with natural daylight and better without the white noise.

**Q: What are some of the awards and accolades that have been given to the ZNE Building?**

**A: Campbell and Uno:** Governor Edmund G. Brown cut the ribbon at our grand opening. Congresswoman Barbara Lee, Senate Majority Leader Ellen Corbett and a host of local elected officials were also in attendance. Dignitaries from China and Korea have visited and many electrical industry leaders have toured the facility. The building has won the Alameda County Stop Waste Award and was a finalist in both the S.F. Business Times Real Estate Deal of the Year Award and the East Bay Innovation Award. PG&E has also recognized the building in its Savings By Design Program. Plus it's gotten "really cool" recognition from hundreds of visitors who have toured the facility, especially the younger generation.

**Q: What's next for the ZNE building?**

**A: Uno:** Continuing to turn out the best trained, highest skilled, most productive IBEW electrical workers in our industry. We started our training in 1946, in the garage of IBEW 595 member Fred Eggers. In our Bay Area, many innovations start in garages. You're always welcome to visit our newest garage, the Zero Net Energy Center.

**Campbell:** In our next phase, we will see what we are going to do with energy storage. When the sun is shining and the wind is blowing, and we're creating energy, we want to take that and put it in a spot that we could use later instead of having it just sent back to the grid. It would make us more self-sustaining. Energy storage is the new technology and that's what we want to train on, and we want to have our JATC be the example of what we train.

**To reach Victor Uno, Business Manager of IBEW Local 595, email [uno@ibew595.org](mailto:uno@ibew595.org) or call (925) 556-0595. To reach Don Campbell, Executive Director of the Northern California chapter of the National Electrical Contractors Association. Business Agent of IBEW Local 595, email [donc@norcalneca.org](mailto:donc@norcalneca.org) or call (925) 828-6322.**

## How Can I Find An Audio Video Contractor?

### C.H. Reynolds Electric, Inc.

Eddie Hernandez  
[eddieh@chreynolds.com](mailto:eddieh@chreynolds.com)  
1281 Wayne Ave.  
San Jose, CA 95131  
(408) 436-9280  
[www.chreynolds.com](http://www.chreynolds.com)

### Cal Communication Service Inc.

Randy Weber  
[randy@calcsc.com](mailto:randy@calcsc.com)  
2624 Verne Roberts Circle #101  
Antioch, CA 94509  
(925) 755-3473  
[www.calcsc.com](http://www.calcsc.com)

### Contra Costa Electric Inc.

Melissa Cherry  
[melissa\\_cherry@emcorgroup.com](mailto:melissa_cherry@emcorgroup.com)  
825 Howe Rd.  
Martinez, CA 94553  
(925) 229-4250  
[www.ccelectric.com](http://www.ccelectric.com)

### Cupertino Electric

Dave Dorcak  
[dave\\_dorcak@cei.com](mailto:dave_dorcak@cei.com)  
1132 N. Seventh St.  
San Jose, CA 95112  
(408) 808-8000  
[www.cei.com](http://www.cei.com)

### Decker Electric

Jeffrey Bloom  
[jbloom@deckerelectric.com](mailto:jbloom@deckerelectric.com)  
1282 Folsom St.  
San Francisco, CA 94103  
(415) 552-1622  
[www.deckerelectric.com](http://www.deckerelectric.com)

### IDEX Global Services

Sean Canon  
[scanon@idexglobal.com](mailto:scanon@idexglobal.com)  
2301 Kerner Blvd. Ste. D  
San Rafael, CA 94901  
(415) 482-4242  
[www.idexglobal.com](http://www.idexglobal.com)

### Integrated Communication Systems (ICS)

Aaron Colton  
[aaron.colton@ics-integration.com](mailto:aaron.colton@ics-integration.com)  
990 Parrott St. Suite #40  
San Jose, CA 95112  
(408) 491-6000  
[www.ICS-Intergration.com](http://www.ICS-Intergration.com)

### Lloyd F. McKinney Associates Inc.

Rick McKinney  
[rick@mckinneyassoc.com](mailto:rick@mckinneyassoc.com)  
25350 Cypress Ave.  
Hayward, CA 94544  
(510) 783-8043  
[www.mckinneyassoc.com](http://www.mckinneyassoc.com)

### McMillan Data Communications

Jim Murray  
[jmurray@mcmillan.com](mailto:jmurray@mcmillan.com)  
1515 S. Van Ness Ave.  
San Francisco, CA 94110  
(415) 826-5100  
[www.mcmillanco.com](http://www.mcmillanco.com)

### Metropolitan Electrical Construction Inc.

Steve Borghello  
[sborghello@metroelectric.com](mailto:sborghello@metroelectric.com)  
2400 3rd St.  
San Francisco, CA 94107  
(415) 642-3000  
[www.metroelectric.com](http://www.metroelectric.com)

### O.R. Enterprises, Inc.

Dave Stoutenburg  
[dstouten@cscabling.com](mailto:dstouten@cscabling.com)  
PO Box 576898  
Modesto, CA 95357  
(209) 530-1700

### Paganini Communications, Inc.

Larry Andrini  
[larrya@pagcos.com](mailto:larrya@pagcos.com)  
190 Hubbell St.  
San Francisco, CA 94107  
(415) 575-3900  
[www.pagcos.com](http://www.pagcos.com)

### Point One Electrical Systems Inc.

Shane Stoltenberg  
[shane.stoltenberg@point1.com](mailto:shane.stoltenberg@point1.com)  
6751 Southfront Rd.  
Livermore, CA 94551  
(925) 667-2950  
[www.point1.com](http://www.point1.com)

### Quality Sound

James Brian  
[gharris@qualitysound.net](mailto:gharris@qualitysound.net)  
2010 E. Fremont St.  
Stockton, CA 95205  
(209) 948-2104  
[www.qualitysound.net](http://www.qualitysound.net)

### Rosendin Electric

Ron Clarkson  
[busdev@rosedin.com](mailto:busdev@rosedin.com)  
880 Mabury Rd.  
San Jose, CA 95133  
(408) 534-2816  
[www.rosedin.com](http://www.rosedin.com)

### Signawest Systems

Ron Kunkel  
[rkunkel@signawest.com](mailto:rkunkel@signawest.com)  
7300 Central Ave., Ste. D  
Newark, CA 94560  
(510) 795-9999  
[www.signawest.com](http://www.signawest.com)

### Sprig Electric Company

Tim Martin  
[tmartin@sprigelectric.com](mailto:tmartin@sprigelectric.com)  
1860 South 10th St.  
San Jose, CA 95112  
(408) 298-3134 x311  
[www.sprigelectric.com](http://www.sprigelectric.com)

### WPCS International, Inc.

Tammy Evans  
[tammy.evans@wpcs.com](mailto:tammy.evans@wpcs.com)  
521 Railroad Ave.  
Suisun City, CA 94585  
(707) 421-1300  
[www.wpcs.com](http://www.wpcs.com)

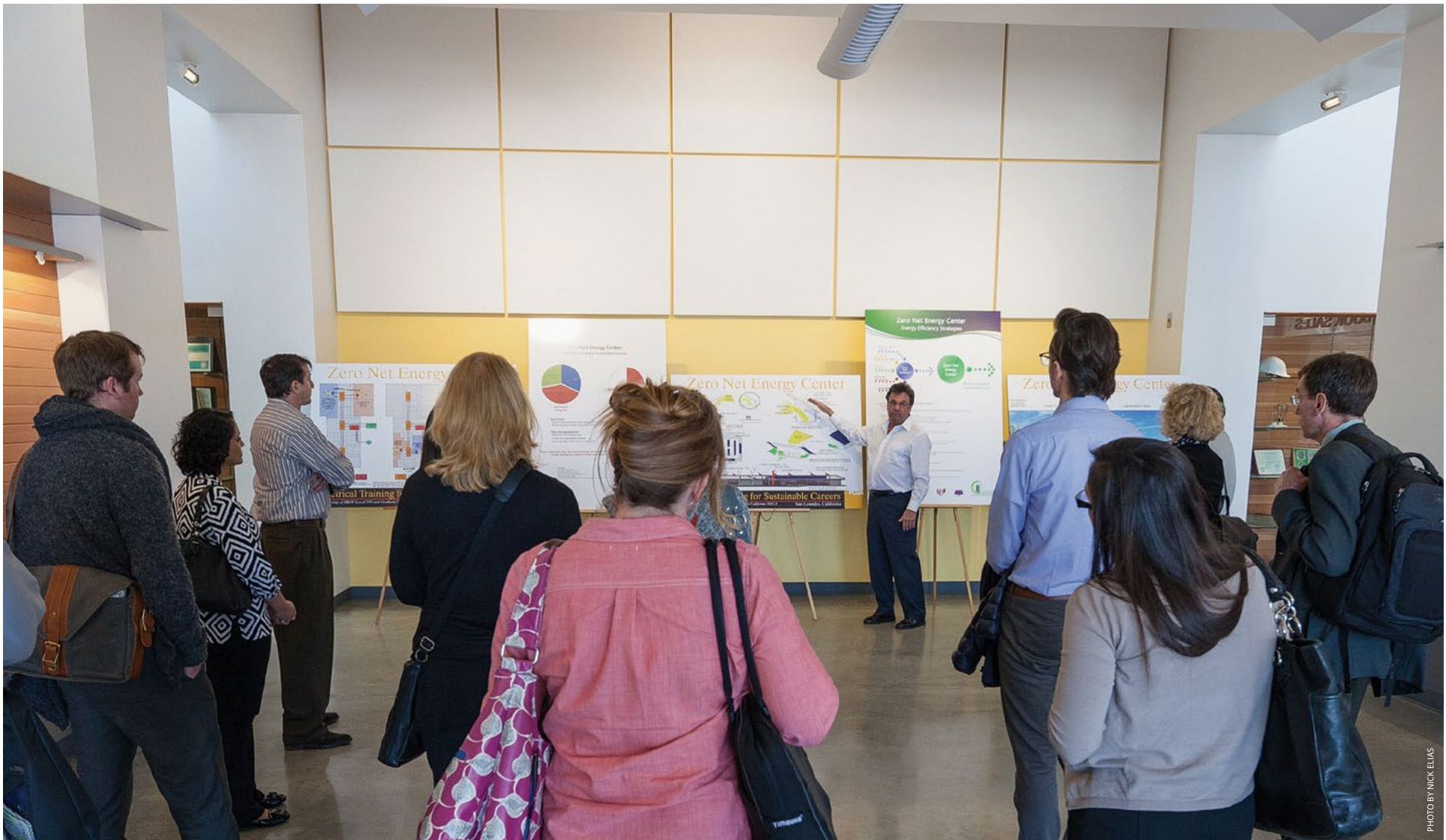
### Young Electric Co. Inc.

Len Beatie  
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# Take A Tour Of The Zero Net Energy Center!



*Byron Benton, Training Director of the Alameda County Electrical Joint Apprenticeship and Training Committee (JATC), leads tours of the Zero Net Energy Center, detailing the different ways the building conserves energy and utilizes renewable energy.*

**IF YOU WANT A TOUR OF THE ZNE BUILDING, ALAMEDA COUNTY TRAINING DIRECTOR BYRON BENTON IS THE MAN TO CALL!** And if you have a question about the building's energy efficiency, Byron is most certainly the man to answer it! Byron is the Training Director at the ZNE Center and has overseen the design and construction of the building.

Byron is a 25-year veteran electrician and electrical training professional with specialized expertise in energy conservation and renewable energy. As Training Director of the Alameda County Electrical Joint Apprenticeship and Training Committee (JATC), he

oversees all aspects of the program and training center for the International Brotherhood of Electrical Workers Local 595 (IBEW) and the Northern California Chapter, NECA.

Before joining the JATC in 2002, Byron worked as General Foreman for Cupertino Electric, one of the country's largest electrical contracting companies. Byron is a graduate of the IBEW-NECA master instructor program held at the University of Tennessee. He currently sits on two IBEW-NECA National Joint Apprenticeship Training Committee Groups: Education Committee, Building Automation Sub-Committee Chair; Interview Advisory Committee. Call Byron at (510) 351-5282.

***For A Tour Of The ZNE Center: Contact Byron Benton, Zero Net Energy Training Director***  
You can reach Byron to set up a tour at [bbenton@595jatc.org](mailto:bbenton@595jatc.org) or call him at (510) 351-5282.

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