



# FACT SHEET

The NZP ETI will also incorporate energy-efficient building design features including plug load strategies, building automation, battery storage, wireless communication, data management, operable and dimmable skylights, highly efficient industrial fans, LED lighting, new roof and wall insulation, an exterior solar shading device to reduce solar heat gains, and high Solar Reflective Index (SRI) roofing material. The effective use of waste heat, passive cooling, and natural lighting will enhance energy-efficiency and comfort at the NZP ETI.

## **Total Energy Solution Providers: Meeting the Demands of the Electrical Industry Revolution Through Training**

The NZP ETI is a state-of-the-art apprenticeship training facility designed for the continued expansion of electrical industry careers as Total Energy Solution Providers, focusing on new-to-industry skills as well as the tried-and-true techniques, with NZP guiding all programs. Total Energy Solution Providers need to be well versed in emerging technologies, which will be featured at the NZP ETI. Each year, the NZP ETI will train thousands of electrical tradesmen and women, creating the best-trained workforce in the U.S.

The NZP ETI will be a national leader in electrical training for demand response, grid reliability technology, utility-scale battery storage, advanced building and lighting controls, and plug load strategies.

## **International Brotherhood of Electrical Workers Local 11 and the Los Angeles Chapter of the National Electrical Contractors Association: Pioneers of Net Zero Plus and the NZP ETI**

Together, IBEW Local 11, which represents more than 13,000 workers, and LA/NECA, which represents more than 400 electrical contractors in Los Angeles and Ventura counties, make up the second largest electrical labor union partnership of workers and contractors in the U.S.

IBEW Local 11 and LA/NECA forged this partnership in developing the NZP ETI to provide world-leading electrical training; they have nationally recognized, excellent training programs. Through this partnership and in cooperation with utilities and private companies, IBEW Local 11 and LA/NECA are pioneering the Net Zero Plus program to transform commercial markets by employing the newest electrical technologies and training the most skilled workforce in the U.S.

For more information, please visit [www.laett.com](http://www.laett.com) or contact Brett Moss, Interim Training Director, by phone at (323) 221-5881 ext. 3001 or by email at [brettm@laett.com](mailto:brettm@laett.com).



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## **An Electrical Industry Revolution: Net Zero Plus**

The electrical industry is currently undergoing a revolution brought about by new and improved energy-efficiency practices, the integration of renewable energy on the grid, new and emerging clean technologies, and changing governmental and regulatory requirements. These rapid changes require labor industry leadership to prepare its workforce with state-of-the-art training for new and exciting careers in the industry.

Net Zero Plus, pioneered by the International Brotherhood of Electrical Workers Local 11 and the Los Angeles Chapter of the National Electrical Contractors Association at their Net Zero Plus Electrical Training Institute, will revolutionize the way buildings use, produce, store, and sell energy.

Net Zero Plus unites energy-efficiency practices, new and emerging clean-energy technologies, improved grid resiliency, and career development at a national center of excellence in energy technology and training.

## **The Net Zero Plus Electrical Training Institute: A National Center of Excellence**

The newly expanded Electrical Training Institute will be the country's largest Net Zero Plus commercial retrofit. This training facility will be a national showcase of excellence for electrical training and innovations in emerging technology testing and demonstration. The facility will feature products and technology that are made in America. The NZP ETI will open in 2015.

The new NZP ETI is a Net Zero Plus building because it utilizes energy-efficient design and technologies and generates more energy than it uses on an annual basis. With an annual energy demand of nearly 1 megawatt (MW), the NZP ETI will produce more energy than the building requires.

The NZP ETI will serve as a living laboratory and demonstration center to test and showcase emerging technologies as well as assist in bringing them to market. The facility will feature small commercial and utility-scale operational Smart Microgrids, which will demonstrate how an existing electrical infrastructure integrated with advanced electronics, battery storage, PV solar panels, and advanced lighting controls can provide a platform for smarter and more reliable electrical systems. The utility-scale system will also integrate 12 electric vehicle-charging stations and a high-efficiency chilled water mechanical system.





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## About the Net Zero Plus Electric Training Institute

The Net Zero Plus Electric Training Institute is a 144,000 square foot, state-of-the-art electrical training center that provides industry-leading training for more than 1,500 apprentice and journeymen electricians and electrical contractors each year.

The \$15.5 million retrofit includes the addition of energy efficiency measures, a highly efficient building

envelope and a system of integrated sustainable energy technologies. The building will demonstrate the future of smart energy efficiency, microgrid system integration, battery energy storage solutions, building resiliency in the wake of a natural disaster or grid interruptions, and advanced lighting controls and automated building management systems.



## Building Retrofit Outcomes

- 51% reduction in total electricity usage
- 185,500 kWh/yr. more energy generated than
- Reduction of 520 metric tons of CO2 per year
- 46% reduction in lighting consumption
- 63% reduction in heating consumption
- 60% reduction in cooling consumption
- Energy storage solutions
- Community resource for architects, developers, and building owners and managers to learn about the integration of net zero technologies and strategies

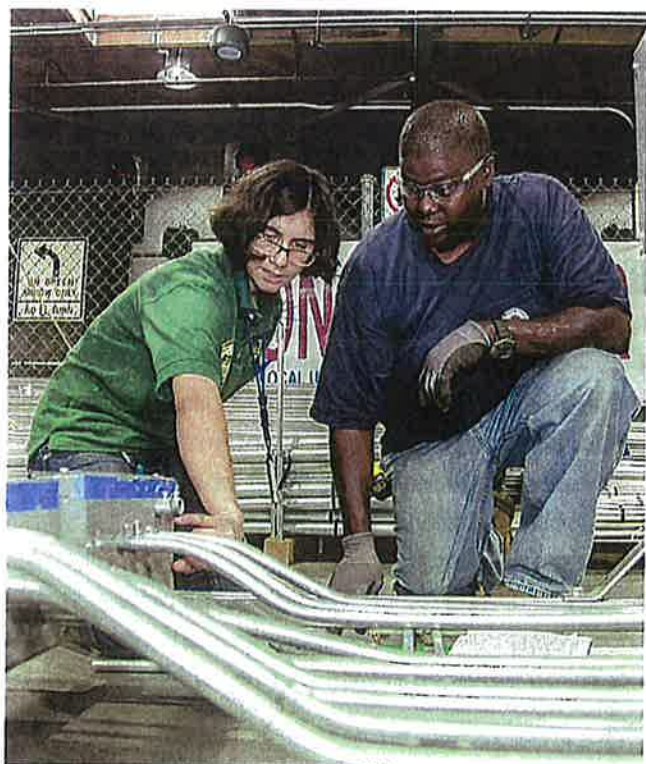




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## The Project Team

The International Brotherhood of Electrical Workers Local 11 and the Los Angeles National Electrical Contractors Association formed a partnership to develop the NZP-ETI with the mission to provide world-leading electrical training and have nationally recognized programs of excellence in training. Through this partnership and in cooperation with utilities and private companies, IBEW Local 11 and LA/NECA are pioneering the Net Zero Plus program to transform commercial markets by employing the newest electrical technologies and training the most skilled workforce in the United States.



## Net Zero Plus Strategies Incorporate:

- Grid reliability
- Energy security
- Energy storage solutions
- Advanced building controls
- Renewable energy technologies
- Reduced environmental impacts
- Emergency response solutions
- Reduced operating costs
- Comprehensive energy insight and analytics
- Scalable solutions for high performance and NZE buildings
- Financing options and resources
- Community engagement for collaborative participation in emerging and advanced energy technologies