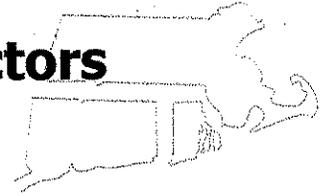




Independent Electrical Contractors of New England, Inc.



TO: Sen. Paul Doyle and Rep. Joe Taborsak
Sen. Kevin Witkos and Rep. Rose Rebimbas
Members of the General Law Committee

From: Lisa Stevens, Executive Director

Date: February 24, 2011

The Independent Electrical Contractors of New England (IEC-NE) ***strongly opposes*** HB-6337, An Act Clarifying the Scope of Solar Electricity Work

Code Enforcement Bulletin #12-2010 issued by the State Building Inspector, attached, clarifies that a PV-1 or PV-2 license holder is not permitted within the scope of their license to connect to any existing panel, junction box, wiring or circuit(s) on the premises. It further states, "Connection to the building's existing electrical system or utility meter can only be performed by a licensed E-1 or E-2 license holder."

This bulletin recognizes that solar energy panels/modules are high voltage technologies and should only be installed by qualified licensed professionals. Solar panel installation guides include clear and specific warnings that solar PV work should be performed by a qualified electrician according to the provisions of the National Electrical Code (NEC). Licensed electricians are trained on the NEC and are updated each and every year on the code as part of their continuing education requirements.

Recognizing the inherent danger in working with high voltage technologies, the vast majority of states require solar PV systems to be installed by a licensed electrician. Only a handful of states and Puerto Rico have solar PV licensing requirements separate from the electrical license. In those states that do have solar PV licensing, solar is a specialty classification under the general electrical license and all appropriately licensed contractors can install solar systems without the solar specialty license. Only a few states allow contractors to obtain a solar specialty license and install systems without having the full electrical or plumbing license. In these states, the training requirements are substantially greater than the training requirements of Connecticut's limited solar licenses, creating very real safety concerns for workers and consumers.

In order to become a licensed electrician, an individual needs to complete a four-year apprenticeship training program of 8,000 hours as well as related classroom instruction. The apprenticeship training program includes training in solar photovoltaic and other energy systems. In addition, licensed electricians are required to take 7 hours per year of continuing education. Information relative to the installation of solar photovoltaic has been incorporated into the continuing education program.

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However, the required training and related educational requirements needed to sit for the PV limited license examinations is much more limited and not sufficient to protect the safety of workers or consumers. A person may be eligible to sit for the PV-1 Limited Solar Electric Contractor license examination after two years (4,000 work hours) as a solar journeyman (apprentice) and 144 hours of school/year or equivalent experience and training. These requirements may have been adequate when solar modules/panels were traditionally low voltage; however, the new systems are considered high voltage.

Allowing solar PV installations to be performed by individuals who are not fully licensed as an electrician may result in unsafe practices that may result in injuries and damage to property. Problems that could result include:

- Improper ampacity of conductors
- Improper types of conductors
- Improper or unsafe wiring methods
- Lack of or improper overcurrent protection on conductors
- Inadequate number and placement of disconnects
- Improper application of listed equipment
- No, or underrated, short-circuit or overcurrent protection on battery circuits
- Use of non-listed components when listed components are available
- Improper system grounding
- Lack of, or improper, equipment grounding
- Use of underrated hardware or components
- Use of ac components (fuses and switches) in dc applications.
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By requiring the adoption of regulations allowing a PV-1 license holder to perform complete working photovoltaic system installations without the assistance of an unlimited E-1 license holder, HB-6337 undermines the integrity of the state's occupational laws and exposes consumers and workers to unsafe practices. We therefore urge you to oppose this bill.

The Independent Electrical Contractors of New England is the premier trade association representing Connecticut, Massachusetts and Rhode Island independent electrical contractors aggressively working with the industry to establish a free environment for merit shop -- a philosophy that promotes the concept of free enterprise, open competition and economic opportunity for all.

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