



What is *Common Ground*?

Common Ground shares practical ideas that address the top safety and health issues facing electricians.

Common Ground is based on real-world practices used by Washington electrical contractors.

Reduce on-the-job injuries: try at least one new idea from each of the 5 editions:

- Worksite Hazard Analysis
- Ladder Safety
- ✓ **Working De-Energized**
- Housekeeping
- Lockout/Tagout

If you have a safety idea that you would like to share, or to make comments about this publication, we would like to hear from you.

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Common Ground

*electricians connect
on safety & health*

What Washington State
electrical contractors are
saying about...

Working De-energized

Why work de-energized?

The electrical industry has recognized the devastating effects of major injury incidents and is experiencing a cultural shift in its approach to live work. Turn the page to see how some companies are working de-energized.

"No electrician should ever work any circuit hot that doesn't have to be worked hot... If it's not life safety, if it's not an alarm system, if it's not part of a critical process, it doesn't have to be worked on [energized]. And it all can be addressed with scheduling. Simple scheduling. You can work midshift, and probably work it de-energized."

-- Manager, Electrical Contracting Firm

Work on de-energized electrical equipment significantly reduces the risk of bodily injury and loss of life, property and production.

A close look at some Washington electrical contractors who are working de-energized reveals some common elements in the way they do business:

- √ Top management commitment
- √ Educate customer on job hazards
- √ Written work policies
- √ Supportive company culture
- √ Pre-planning
- √ Scheduling
- √ Trained electricians
- √ Effective communication

The following case studies illustrate these elements in practice:

Company 1: Occupied hospital

A hospital hired an electrical company to perform several weeks of work. Prior to starting work, the company met with the hospital's safety officer to discuss their safety and health concerns. The meeting allowed the electrical company to educate the hospital on the hazards of working energized.

Positive outcome:

Through pre-planning and scheduling, the electrical company performed work on de-energized circuits in the occupied hospital. The hospital staff appreciated the contractor's willingness to conduct the work safely.

Company 2: Emergency service work

A business owner in need of electrical repair work was adamant that power not be shut down, despite the fact that a previous electrical contractor was injured doing the work energized. The newly contracted service electrician did not feel the system could be worked energized in a safe manner. The electrician discussed the situation with his manager and was given permission to refuse the job if the owner would not agree to power down. Ultimately, the electrician was able to calm the business owner and to explain the hazards of the work.

Positive outcome:

The work was performed de-energized. In this case, the electrician was backed by company policy and a supportive company culture in his actions. He was able to demonstrate competency while educating the owner about the hazards.

Company 3: Tenant improvement

At an occupied apartment complex, the apartment manager told an electrician that the electricity could not be turned off while repairs were made to one of the units. The electrician notified his manager – his company’s policy stated that energized work required a permit and that two journeymen needed to be present. His manager suggested that he speak with the apartment manager again and explain their work policies. Once the electrician made clear his company’s work policies, the apartment manager decided to check with the tenant about a possible disruption. The tenant agreed to have power shut down for an hour.

Positive outcome:

A well-trained electrician, backed by his company, was able to communicate his work policies and the hazards inherent in the repair work to the apartment manager. When the tenant was notified, they readily agreed to a temporary electrical shut down.



“Well, arc flashes...it’s the damage they do. An arc flash essentially is a fireball. And that fireball has molten metal in it, copper, aluminum. It does damage to the skin, the eyes, the lungs, it’s worse than the shock could ever think of being. It’s what you see. The physical damage that’s done to people...it melts clothes to people, you know, they spend time in burn centers. It’s very, very ugly.”

-- Electrical Training Center Staff

Company 4: Office lighting

An electrical contractor frequently does service work on de-energized lights in a large office building. At a safety meeting between the contractor and customer they discussed how to communicate the temporary power outage to office staff. Small place cards were designed and put on desks. The cards read: *Hello. The overhead lights are currently off due to lighting improvements being made on this floor. The power is off to protect the electricians from electrical shock that could result in injury or death. The lights will be restored shortly. Thank you for your patience and we apologize for any inconvenience this may cause.*

Positive Outcome:

In this case, management had already agreed to work de-energized. The cards helped the electricians establish a safe work routine that was agreeable to all parties.

Copies of all *Common Ground* editions as well as the publication, *Electrical Contractors Industry Focus Group Report* can be found on SHARP's web site:

<https://lni.wa.gov/safety-health/safety-research/completed-projects/healthy-workplaces-electrical-millwork-food#overview>.

All quotes, opinions and company practices were solicited through focus groups and interviews conducted by L&I's Safety & Health Assessment & Research for Prevention (SHARP) Program. This publication seeks to promote practical safety strategies; it does not attempt to interpret whether the opinions expressed meet the Washington State Administrative Code.



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