



Green Power Generation System Installation

What you should know before doing any electrical work

Electrical utilities or independent power-supply generating facilities that are regulated by the Federal Energy Regulatory Commission (FERC)

You are exempt from the electrician and electrical installation requirements in Chapter 19.28 RCW.

- You are not required to get a license, permit or inspection.
- Independent power facilities may be required to substantiate FERC oversight.

Electrical contractors and property owners

An electrical permit is required for most new, remodel, and maintenance electrical work.

- Your best protection is purchasing an electrical permit and having your electrical work inspected, as required by law.
- You could be subject to civil penalties if you do not obtain the required permits and inspections.
- You could face a fine of up to \$2,000 for failing to obtain a permit before beginning electrical work. Each day and each location on which a violation occurs constitutes a separate violation.
- Additional penalties can be levied for failure to correct any violations noted during an electrical inspection.
- Your electrical power might be disconnected if you fail to comply with the law.



Work that does not require a permit

A permit is *not* required for like-in-kind replacement of circuit breakers, fuses, lamps, snap switches, contactors, relays, timers, motor starters and similar control components.

Work that requires a permit

If it is not included in the exemption above, the work requires a permit and inspection.

This includes:

- All new installations, regardless of size or voltage.
- Repair, replacement and maintenance of:

All circuit wiring
Inverters
Solar photo-voltaic systems
Any type of electrical generation source
Panelboards
Wind turbine systems
Telecommunications systems
Other electrical equipment

What about electrical equipment listing?

Ensuring that all electrical equipment is built to an appropriate electrical standard is a key component in the inspection process. To avoid delaying your project, you should make certain that all the system's components you are buying, e.g. wiring, disconnects, inverter, wind turbine, solar panels, etc., have been listed, field evaluated or engineer approved before your electrical inspection.

You must ensure that all electrical-generating system components are built to an appropriate international or U.S. electrical standard. Third-party evaluation ensures your equipment was manufactured according to the appropriate electrical safety standard and is safe to operate.

Electrical equipment must be listed or field evaluated by an independent electrical testing laboratory approved by L&I. You can find a list of all approved testing laboratories at: www.Lni.wa.gov/TradesLicensing/Electrical/Install/ and click on Product Testing Laboratories.

If your system's components are not listed or field evaluated by an approved electrical testing laboratory, you can get them reviewed and approved by an independent electrical engineer approved by L&I. Engineer review is normally the least expensive option if your equipment is not listed from the factory. It will be even less expensive if the model you are buying is on the "previously approved" list.

You can find information about approved engineers and the previously approved list at: www.Lni.wa.gov/ TradesLicensing/Electrical/Install/ and click on Engineering Evaluations. Note: Even if your equipment model is on the previously approved list, the engineer must visit your site to determine if what you have is identical, is in good condition, and is wired the same as the originally approved equipment.

Other approval may be required by local building official or planning department

You may need approval from your local building official or planning department to site your installation, and you may need a permit and inspection for the mechanical and structural aspects of your installation. Contact your local city or county building official or planning department before doing any work.

How to protect yourself and your property from fire danger

- Do electrical work only if you are qualified. If you do not have a good understanding of electrical wiring and are not qualified, hire a licensed electrical contractor.
- Get the required permits, inspection and approvals.

How to protect your property so that you can refinance, sell, get insurance, etc.

- Get the required electrical permit if you are doing the electrical work or be sure the electrical contractor you hire obtains it.
- Locate electrical work you or an electrical contractor did in the past and determine if you have corresponding permits. If not, contact L&I for an electrical safety inspection.

- If you are unsure whether existing electrical work was inspected, obtain a permit to "inspect existing electrical work" from your local L&I office. We will inspect your property for electrical safety.
- Safeguard your permits and approvals. Lack of proper documentation for electrical modifications may cause you problems when trying to sell your property.
- If you hire an electrical contractor, be sure he or she is properly licensed. Check your contractor's license and whether that contractor has past violations: www.ElectricalBasics.Lni.wa.gov.

Electrical permits and inspections

If you do the work yourself:

- You must buy the permit.
- You may buy your permit online using a credit card at: www.ElectricalPermitsInspections.Lni. wa.gov or in person at any L&I office.

If you hire an electrical contractor:

- Get a written quote for all the work to be done.
- The contractor must buy the permit.
- Check the electrician certificate for each electrician on your job. Electricians should have a current certificate with them at all times.
- If trainees are on your job, they must have a current training certificate and be supervised by an electrician on a 1:1 ratio. The electrician must be on the job site at least 75% of each day.

Installation description and fees

- Include a complete description of all the work that is being performed under the permit. The initial inspection fee will be based on your installation description.
- The minimum fee for a new wind turbine or solar photovoltaic feeder is \$75.
- Additional electrical work may increase the cost of your permit. The electrical inspector will adjust the fee if the information you provide is incomplete or inaccurate.

■ Equipment approval: If your equipment is not listed, you will need to get it field evaluated by an approved testing laboratory or reviewed by an approved engineer. For more information, please see the section, "What about electrical equipment listing?"

Driving directions

To ensure a prompt inspection and to avoid additional trip fees, you must provide good driving directions from the nearest major intersection. If you believe the inspector may have difficulty locating your work site, please provide a contact name and telephone number when buying the permit or requesting the inspection.

Making your inspection request

- Request an electrical inspection online at www.ElectricalPermitsInspections.Lni.wa.gov.
 Requests made online before midnight will be available to the inspector the next morning.
 Because of varying workloads, the response time for an inspection may vary. Most inspections are performed within one working day after the request is received.
- You may also call any L&I office to request an inspection, but this may delay your inspection request.
- If any special arrangements are needed, you must contact your inspector between 8 and 8:30 a.m. prior to the inspection. Special arrangements include access to the site when no one is present, request for specific inspection days or times, or any other needed arrangements.
- Inspectors will not enter any work site when minors are present unless the owner or the owner's adult representative is present.



Canceling an inspection

Contact your inspector before 8:30 a.m. the day of the inspection to cancel an inspection request. Cancellations made after 8:30 a.m. may not reach the inspector in time and may result in additional fees.

Your responsibilities

- You must either do the work yourself or hire a licensed electrical contractor to do it.
- You must provide clear and safe access to the inspection site or the inspection will not be made. If necessary, provide safe access by way of steps, stairs or ladder into the inspection site. Additional fees may be charged for additional trips.
- The site must be free from any hazards to the electrical inspector. Inspectors will not enter an unsafe work site. Additional fees may be charged for additional trips.



No electrical work may be covered before it is inspected and approved.

Principles that guide state electrical inspections

- **Public safety:** To protect the general public from unsafe living and working conditions.
- Fire safety: Improperly installed components, including electrical, are a leading cause of fires in the state.
- **Consumer protection:** Improperly installed electrical work can be costly to a property owner.

State authority regarding electrical inspection

The Department of Labor & Industries' Electrical Program has statewide responsibility for inspecting both new and altered electrical systems in all types of installations. With this responsibility, L&I's goal is to provide consistency and uniformity in application of laws and rules concerning electrical installations.

Note: Some cities do electrical inspections. Their standards of inspection must meet or exceed those required by L&I. If you have city inspections, contact your city for answers to your electrical questions.

For more information

On the Web: L&I's Electrical Program www.ElectricalProgram.Lni.wa.gov

L&I Offices: www.Offices.Lni.wa.gov

Other formats for persons with disabilities are available on request. Call 1-800-547-8367. TDD users, call 360-902-5797. L&I is an equal opportunity employer.