

ELECTRICAL CERTIFICATIONS QUICK REFERENCE GUIDE

Why do I have to get my equipment certified?

According to the Ontario Electrical Safety Code Rules 2-022 and 2-024, all electrical equipment must be certified prior to use in Ontario to ensure that the equipment is built in a safe manner. These results are based on CSA Z462 which lists an electrical hazard as anything over 60V DC or 30V AC as a shock risk to humans. The effect of shock depends on the magnitude of the current, the power source frequency, the duration and the path through the body. The physiological reaction ranges from sensation, muscular contractions (e.g., inability to let go), ventricular fibrillation, tissue burns, and death.

Isn't all equipment we purchase certified?

When equipment is purchased by purchase order (PO), a clause is built into the PO that equipment must come with [certification](#) (unless waved by the requestor). Yet, non-certified equipment is regularly purchased. Supervisors should inspect their equipment for certification immediately upon arrival. If no certification marking is found, immediately inform procurement and they may be able to remedy the situation with no or limited costs to the supervisor.

How do I get my existing equipment certified?

1. Inspect your equipment as per the flow chart on the following page to determine compliance.
2. Contact the equipment supplier to determine if they can certify the equipment (this can sometimes lead to lower costs).
3. If the equipment cannot be certified via the supplier, use one of the [consulting companies](#) known to complete electrical certifications in our area.
4. If you need support for evaluating or certifying equipment, [submit a work request](#).

When submitting a work request, an account number is required. There are no additional charges from Plant Operations as a result of them supporting your project (with the exception of Housing or Food Services). If a consultant and/or contractor is hired through Plant Operations, the owner of the equipment approves the quote from the consultant prior to hiring and will be billed the cost of the consultant and/or contractor.

If I use a UPS does the attached equipment have to be certified?

UPS systems do not exempt you from certifying the power supplies plugged into the system.

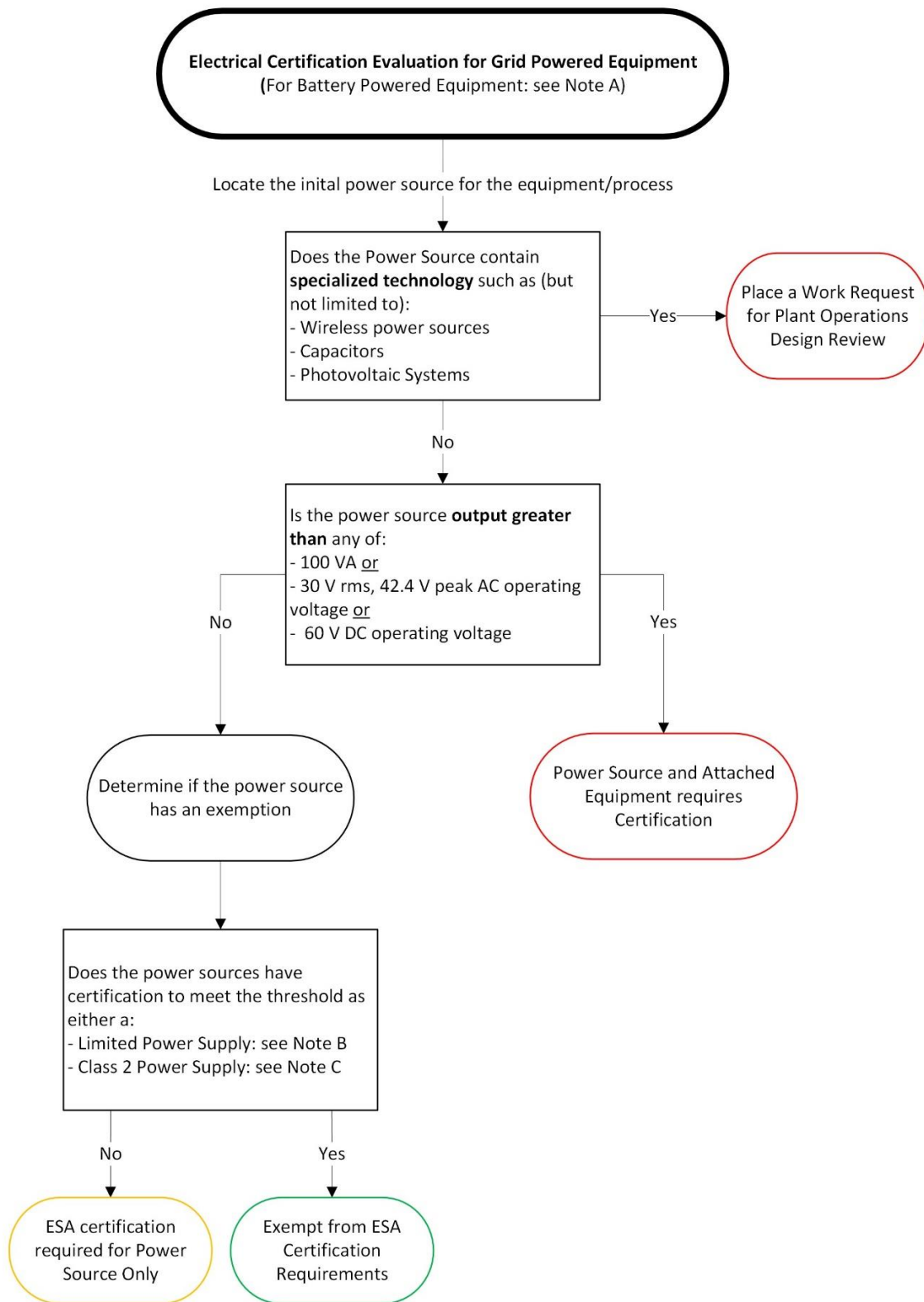
My equipment doesn't have a mark on it, but it came with a piece of paper saying it is certified. Is this sufficient?

No, the legislation requires the mark to be on the equipment.

Can old equipment be grandfathered into the system?

The Electrical Safety Code does not have any grandfather system for old equipment. Equipment that missed certification upon purchase is out of compliance with the code and is still required to be certified.

How do I assess my equipment to determine if ESA certification is required?



Notes:

- A. Battery powered equipment rarely requires certification. Situations where certification may be required include:
 - (1) Equipment is a medical device. OR
 - (2) Equipment is used by an electrician for measurements at electricity distribution points.
- B. Limited Power Supply has a visible marking for CAN/CSA-C22.2 No. 60950-1
- C. Class 2 Power Supply has a visible marking for CAN/CSA-C22.2 No. 223, or both CAN/CSA C22.2 No. 66.1 and 66.3