

Re: Electrical Plan Review — Why It Matters Before Work Begins

Electrical plan review helps identify major issues of non-compliance with the Ontario Electrical Safety Code (OESC) **before equipment is purchased or work begins.**

Each year, ESA's Plan Review department assesses thousands of electrical plans, helping surface potential inspection issues at the planning stage. This early review helps identify issues that, if addressed during the design stage, are far less likely to lead to **costly changes** or **construction delays after the first inspection.** Plan Review also provides **written feedback** identifying portions of an installation that would not pass inspection if built as designed — allowing issues to be addressed before they become problems on site.

When is a Plan Review Submission Required?

OESC Rule 2-010 requires electrical Plan Review submission for certain types of installations, including:

- **Services, feeders and generators at or above specified ratings**
- **Certain emergency power supply systems for life-safety systems (OESC Section 46)**
- **Large or complex electric vehicle charging installations**
- **Any installation within the scope of Section 64 (renewable energy), including bi-directional electric vehicle supply equipment (EVSE) at or above a specified rating**
- **Most high-voltage installations**

To confirm when Plan Review is required for a specific installation, refer to OESC Rule 2-010 and visit: ESAsafe.com/electrical-plan-review/.

If Work Begins Before Plan Review is Complete

Beginning electrical installation before a mandatory Plan Review is submitted and completed **is an OESC violation and will result in a defect being issued to the Licensed Electrical Contractor (LEC).** ESA has seen significant project delays and added costs in situations such as:

- **Incompatible main switchboards due to omitted ground fault protection**
- **Incorrectly sized services for fire pumps or missing fire protection conductors**
- **Generator ground fault protection schemes incompatible with existing installations**
- **Undersized panelboards where all sources of a utility-interactive system were not considered**
- **Undersized services for EVSE**
- **Multi-residential towers with interconnecting underground parking garages (separate buildings) and location of disconnecting means**

In many cases, these deficiencies were only identified during inspection, after equipment had been installed, resulting in redesign, replacement of equipment and costly project delays.

What Plan Review Does Not Do:

Electrical plan review does **not** approve or certify electrical designs, replace the role of a professional engineer or remove the requirement for on-site electrical inspections.

How to Submit Plans for Review:

Electrical plans must be submitted through [ESA's Electronic Plan Review Portal](#).

- Submission requirements, guidance and FAQs are available at: ESAsafe.com/electrical-plan-review/.
- Additional technical direction is provided in [ESA Bulletin 2-11-*](#).

Important Reminder: When Plan Review is required under the OESC, the Plan Review must be completed **before** electrical installation begins. Allow sufficient time for review when planning project schedules.