

Residential Solar Plan Intake Checklist & Info Sheet

Before approval and issuance of permits for Solar Thermal/Photovoltaic installations, applicant shall submit the following minimum information. Installation must comply with the manufacturer's instructions and building and fire code requirements, including the National Electrical Code. Contractors must comply with Minnesota Department of Labor and Industries contractor licensing regulations.

Rooftop-Mounted PV Installations

Submit the following:

1. Fully completed application for a building permit with 2 copies of plans and/or engineering information

<http://duluthmn.gov/media/182625/form-building-permit-application.pdf>

- An engineer's report and plans are NOT required if roof structure meets one of the following criteria:
 - a. Existing rafter structure meets the design criteria in Minnesota Residential Code <http://www.dli.mn.gov/business/codes-and-laws/2015-minnesota-state-building-codes> **Table R802.5(7). Rafter Spans for 70 psf Ground Snow Load-Ceiling Not Attached to Rafters.**
Dead Load = 20 psf **OR**
Table R802.5(8). Rafter Spans for 70 psf Ground Snow Load-Ceiling Attached to Rafters.
Dead Load = 20 psf
 - b. Trusses were designed, permitted and inspected to comply with 2007 Minnesota Residential Code or subsequent versions.
- Other roof structures require analysis by a Minnesota licensed structural engineer and submittal of:
 - Construction plans showing the roof structure and any modifications required and installation of the solar equipment on the structure, **or**
 - A letter from the engineer describing the roof and the modifications required.
 - Cross section drawing that identifies rafter size, spacing and span dimension and approximate roof slope and panel angle, unless flush-mounted.
 - Specification of style, diameter, length of embedment of bolts (i.e., Simpson ¼" dia. SDS wood screws or equiv., 3" embedment into framing, blocking, or bracing).

2. Fully completed application for an electrical permit and the following information:

<http://duluthmn.gov/media/122634/form-electrical-permit-application.pdf>

- Line diagram
- Manufacturer's install/data sheet
- Site plan/diagram

Ground-Mounted PV Installations

For *ground-mounted* solar energy systems, the installation must meet property line setback standards for accessory structures. An electrical permit is required. No building permit is required.

Submit the following:

1. Fully completed application for an electrical permit and the following information:

<http://duluthmn.gov/media/122634/form-electrical-permit-application.pdf>

- Line diagram
- Manufacturer's install/data sheet
- Site plan/diagram

Fees

Building permit and electrical permit fees are based on the valuation of the work, including materials and labor. The fee schedule for the city of Duluth is available at:

<http://duluthmn.gov/media/431242/handout-building-permit-fee-schedule.pdf>

The building permit fee will be based on the value of any construction work related to the PV installation. If no construction work is required, no permit fee will apply.

The electrical permit fee will be based on the value of the electrical work and equipment related to PV installation.

Plan review fees will be waived for PV installations for existing 1 and 2 family and townhouse residential buildings under the scope of the Minnesota Residential Code.

Submitting Permit Applications and Plans

Contractors registered with Construction Services & Inspections can submit electrical permit applications online via eTRAKiT:

<http://www.duluthmn.gov/construction-services-inspections/epermits>

Required documents must be provided via the upload function to make a complete application for review.

Contact the One Stop Shop at 218-730-5240 to register to use eTRAKiT.

Building permit application for alterations related to PV installations are not currently available online. Contact the One Stop Shop at **218-730-5240** or make application with required documentation in the Construction Services office, City Hall, 411 W 1st St, Duluth MN.

See sample technical documents on Duluth Construction Services website at:

<http://duluthmn.gov/media/351907/handout-sample-tech-info-solar.pdf>

Contractor licensing regulations information is available at Minnesota Department of Labor and Industries website:

<https://www.dli.mn.gov/business>