



Solar PV Panels- Permitting and Inspection Guidelines

WHAT IS THE PERMITTING PROCESS FOR A SOLAR PV PROJECT?

STEP 1

All contractors doing work in the Village must be registered before applying for permits. To review registration information and complete the online process through the public portal, visit <https://www.lith.org/government/departments/community-services/community-development/building-permits-licensing/contractor-s-license>.

STEP 2

Submit a building permit application and supporting documents listed in these guidelines to CD@lith.org, or in person at Village Hall 600 Harvest Gate, or by U.S. mail. Permit application forms may be found here: <https://www.lith.org/government/departments/community-services/community-development/building-permits-licensing>.

STEP 3

Allow for (3-10) business days for the application to be reviewed. NOTE: You may qualify for a 3 day express permit review, if the guidelines listed below (on Pages 4 & 5) under EXPRESS PERMITS are followed. Typically, residential installations can qualify for an express review. Commercial area projects involving large scale ground mounted installations will require additional review steps as part of a standard review process. For large scale commercial or institutional building installations, please contact the Community Development Division to provide information about your intended project, and we will guide you through determining the applicable regulations and process steps that may involve additional agencies.

STEP 4

When the permit review is approved, the permit is ready to be issued to you. You will be contacted to make payment and obtain a copy of all approved paperwork and permit card.

STEP 5

You must post your permit at the jobsite before commencing work.

STEP 6

You MUST schedule the required in progress and final inspections. Note: The permit work is not considered complete, and the file is not closed until the final inspection is approved.

*Permit extension fees may be assessed if the file is not closed out.

WHAT DO I NEED TO SUBMIT FOR AN EXPRESS PERMIT?

- An application form, are available online at: www.lith.org (or paper application at Village Hall)
- A signed copy of the work Proposal from the contractor
- A signed copy of the Village's *Solar PV Permits - Express Submittal Checklist* and backup documentation as listed in the *Checklist*.

HOW MUCH WILL MY PERMIT COST?

- All installations are charged at \$8 per \$1,000 estimated value of project or at least the minimum fee for single family residential project of \$82.00 (whichever is greater).

EXAMPLE 1

A typical single- family installation project with a valuation indicated on the permit application form of \$20,000, would be charged at \$8.00 x 20= \$160.00

EXAMPLE 2

A project valued at \$30,000, would be charged \$8.00 x 30= \$240.00

- The minimum fee for a multi-family/commercial project is \$100.00

WHAT INSPECTIONS ARE REQUIRED?

- First inspection- Schedule for the day installation is starting. This can be an “in progress” inspection. The contractor can start laying out materials and start installing equipment before the inspector arrives. Roof mounted materials shall be checked by the inspector on the ground, prior to the contractor mounting on the roof.
- Second inspection- Schedule a final inspection once all work is complete. You must schedule before the permit expires in order to avoid permit extension fees. The installer must be present to provide access inside the home to the area of the work and attic area.

HOW LONG IS THE PERMIT VALID?

- Single family home projects- The permit is valid and dated for 180 days.
- Multi-family and commercial projects- The permit is valid and dated for 180 days.
- Note: Extensions may be granted, per request of the applicant and approval by the Village, if requested prior to the expiration date of the permit.

HOW DO I SCHEDULE AN INSPECTION?

- **All inspections are completed within 1 to 2 business days of request.** (Submit your request for an inspection by 3:00 p.m. to be on the list for the following work day).
- To schedule an inspection, call the Village Hall at 847-960-7400. Office hours are Monday through Friday from 8:30 a.m. to 5:00 p.m.
- Inspections are typically scheduled for a.m. or p.m. Monday through Friday; however, specific times may be requested.

ADDITIONAL INFORMATION AND HELPFUL LINKS

- Per the Lake in the Hills Municipal Code, all solar installations shall comply with the Village's adopted building codes and Zoning Ordinance. To review these regulations, visit: <https://www.lith.org/home/showpublisheddocument/274/637897687600230000>
- Building Codes currently adopted and applicable to solar photovoltaic projects include: 2021
 - 2021 International Residential Code (IRC)
 - 2021 International Building Code (IBC)
 - 2021 International Fire Code (IFC) 2020
 - 2020 National Electrical Code (NEC)
 To review these code publications, visit: <https://codes.iccsafe.org/category/illinois>
- Additional information pertaining to solar installations has been compiled by the Solar America Board for Code and Standards (Solar ABCs). Visit their web site at: <http://www.solarabcs.org/about/publications/reports/expedited-permit/>
- For information pertaining to ComEd requirements to connect to the grid, please visit: <https://www.comed.com/MyAccount/MyService/Pages/ConnectingToTheGrid.aspx>
- For information pertaining to ensuring your system is protected from animal damage visit: <https://news.energysage.com/critter-guards-solar-panels-protect-system-squirrels-birds/>

SOLAR PV PERMITS – EXPRESS SUBMITTAL CHECKLIST

ACKNOWLEDGEMENT

Please check off that you have read and will comply with the following guidelines and code requirements with your permit submission documents and actual installation work. (This document must be attached to your solar PV permit application for express review). Please print your name, telephone number, and date at the bottom of the form acknowledging that you have reviewed and included all items described as required documentation. PLACE CORRESPONDING ITEM NUMBERS ON SUBMITTED DOCUMENTATION.

GENERAL REQUIREMENTS—Initial Both Items

___ All contractors working at the job site have completed local contractor registration requirements.

___ All work shall comply with the Zoning Ordinance and applicable codes adopted by the Village listed in *Additional Information and Helpful Links*.

SUBMITTAL REQUIREMENTS—Place Corresponding Numbers on Specific Documents that are Being Submitted and Check them Off

1. ___ I have submitted a building permit application form completing applicable information fields. (Application forms are available online at: www.lith.org)
2. ___ I have submitted a signed copy of the contract work proposal signed by the property owner.
3. ___ I have submitted a site and roof plan showing the location of major components including the number and layout of all modules, inverter(s), combiner boxes, utility meter and disconnect, and that access pathways as required by the building and fire codes (IFC 605.11) for fire fighter access are being met.
4. ___ I have included diagrams that clearly show the maximum height of any ground mounted arrays, and the height above roof for any extensions above or beyond roof planes for roof mounted systems. I have indicated distances from property lines for any ground mounted systems and included a Plat of Survey.
5. ___ I have submitted an electrical diagram, which includes all circuit information, types and sizes of conductors and conduit, array wiring sizing, and locations inside or outside the structure, equipment location, type of inverter, points of connection, disconnect information including if the system is provided with battery backup. I've included the overall system power rating, service panel(s) ampere rating, main breaker and back fed breaker amps ratings, and equipment grounding information including methods, sizing, and all points of connection. (Note: Acceptable diagram templates to assist you are available at: www.solarabcs.org/permitting)
6. ___ I have submitted all disconnect information including a remote disconnect location accessible by fire personnel to prevent back-feeds to the rest of the electrical system during an emergency if the system contains battery backup. I have included the requirements for the battery storage and venting.
7. ___ I have submitted the specification sheets and simple manuals for all major components including the modules, inverter, combiner box, disconnects, rail mounting system, and battery backup (if applicable) which includes all fire rating classifications and these comply with code requirements. If the cut sheets

submitted contain multiple models information, I have circled which specific model information applies to this project. PV modules are listed to UL 1703, the rack mounting system is listed to UL 2703, and the inverter, combiner box, and rapid shutdown equipment is listed to UL 1741. All system components are being installed per the manufacturer’s installation requirements.

- 8. ____ I have submitted a copy of the graphics for all code required labeling and warning signs.
- 9. ____ I have submitted a copy of the required *Interconnect Agreement from Commonwealth Edison*.
- 10. ____ I have submitted a signed and sealed structural assessment report from a State of Illinois licensed design professional. The following specific criteria are indicated in the design professional’s review approval report:

A: The design criteria reviewed including roof dead load, snow loads, and wind loading.

B: The array is being mounted on a structurally sound, code compliant structure and the roof is able to support the additional loading of the solar panels and any additional snow drift loading as a consequence of the installation. The existing conditions at the specific site have been reviewed.

C: The existing roof is free of sags, cracked shingles, and has no cracks in the roof rafters.

D: A listed and approved engineered product and mounting system is being used to attach the array to the structure.

E: Specific details are included that show length, type, and number of fasteners to be used to mount the panels to the mounting rails, and attach the rails to the roof. Any conditions where mounting screws will fall in the field between roof rafters, have been approved by the licensed design professional and an exact detail to follow has been included in the submittal packet for this condition.

F: Wind uplift criteria will be met with the specific type, size, and number of fasteners being used for the project.

INSPECTION REQUIREMENTS—Initial Items, Sign, and Date

____ I will schedule an inspection at the start of the installation. All roof mounted materials will be checked by the inspector at ground level prior to mounting on the roof. A final inspection will be scheduled prior to expiration of the building permit. All materials and layout will MATCH with what have been submitted AND all applicable code requirements. The installer must be present for inspections for questions and providing access inside to the service panel area and attic area.

____ Existing roof top elements such as plumbing vents and roof hood vents shall not be altered. If alterations are needed, review with the building inspector must be done prior to executing the work.

____ A NAMEPLATE and TESTING LABORATORY LABEL shall be visible on all major components at time of inspection for the Village inspector to review.

I acknowledge that I have read and will comply with the guidelines listed above:

| Name - (please print) | Telephone Number | Date |
|------------------------------|-------------------|-----------------------------|
| Village of Lake in the Hills | 600 Harvest Gate | Lake in the Hills, Illinois |
| Phone: 847-960-7400 | Email:CD@lith.org | web site: www.lith.org |