Solar Permitting



Solar Permitting

Goal

 By the conclusion of this presentation, you will have a more in depth understanding of the required documents and how those documents are evaluated.

Solar Permitting

- Overview
 - What is an EZ Permit / EZ Standard
 - Document Submittal
 - EZ PERMIT STANDARDS SOLAR PV SYSTEM
 - Proof of submission of the PECO
 Interconnection Application through the form of a screenshot of the application dashboard
 - Letter from a professional engineer stating that the roof framing has been inspected
 - Executed contract

- Design Limitations
 - Occupancy
 - Slope of Roof
 - Designation of property as historical
 - Structures Height Limitation
 - Maximum Size
 - Clearances
 - Height of System

EZ Permit / Standard

- **EZ Permit:** A special type of permit for simpler construction and renovation projects that don't require the submission of detailed architectural plans
- **EZ Standard:** A specific set of code requirements that a project must meet to qualify for an EZ Permit. These standards outline the acceptable methods and materials for approved work, simplifying the process by eliminating the need for plan review

EZ Permit / Standard

- **Compliance:** To get an EZ Permit, you must confirm that your planned work aligns with the relevant EZ Standard.
- Who Evaluates your application: The Ez permit can be evaluated by any member of the Mechanical Services unit including Plans Examiners but most commonly it is evaluated by a member of the Mechanical Services permit intake staff.

EZ Permit Standards Solar PV System

Required for submitted standard to be accepted:

- Address of Project
- Printed name of licensed electrician associated with project
- Signature of licensed electrician associated with project
- Application number

Philadelphia Administrative Code 9-1006 (1)(a) Electrical Contractors License Required

No person shall engage in the business of installing systems, or parts of systems, used to transmit, generate or distribute electricity, nor engage in the business of electrical contracting, unless that person has obtained a license from the Department.



EZ PERMIT STANDARDS SOLAR PV SYSTEM

For installations made on One- or Two-Family Dwellings. This document shall be submitted with the Electrical Permit application. Revised 9/25

EZ Permit Standards: Solar Photovoltaic (PV) System Installations

If the proposed Solar PV System fully meets the standards below, the project requires an Electrical Permit only and does not require the submission of plans. All other projects will require a Building Permit and an Electrical Permit with the submission of plans.

The Licensed Electrical Contractor must meet the following installation conditions, limitations, and requirements regarding the installation of the Solar PV System for the Department to allow the full installation to proceed under the electrical permit. Note: The Electrical Contractor must accept responsibility for the structural installation of the roof-top equipment.

Conditions

- Installation must fully comply with the requirements of the Philadelphia Residential Building Code, 2017 National Electrical Code (NEC), and the Philadelphia Fire Code (PFC) for installations on single family dwellings up to three (3) stories in height. All other installations must comply with the Philadelphia Building Code and the 2017 NEC.
- . Systems are limited to a maximum of 10 kW or less in size.
- Installation must be on the roof of a one- or two- family dwelling.
- The following are not eligible for use of this standard:
- Installation on roof systems comprised of engineered trusses. Excep a professional engineer stating that the roof framing has been inspec evaluated; connections will not adversely impact the structural int framing system can withstand the additional loads applied by the so
- Installation on a sloped roof greater than 2:12 (17% slope)
- Property is designated historical by the Philadelphia Historical Comn

Installation I installand and Decisionants

- ▼ Falt vi = ivialitility
- Part VII Connection to Other Sources

Prior Approvais

The Contractor must submit proof of submission of the PECO Interconnection

Application through the form of a screenshot of the application dashboard.

The screenshot must clearly show the following information:

- Project's Location,
- Installation Type
- System Capacity, and
- Current Application Status
- Application Summary

 Application Status: Approval To Install

 Committee Application Status: Approval To Install

 A Action Required

 A Action Required

 A Committee Application Status: Approval To Install

 A Action Required

 A Timeline

 The Status S

AP#Licensed Electrician's Name Licensed Electrician's Signature	
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PB_019_F Page 2 of 2

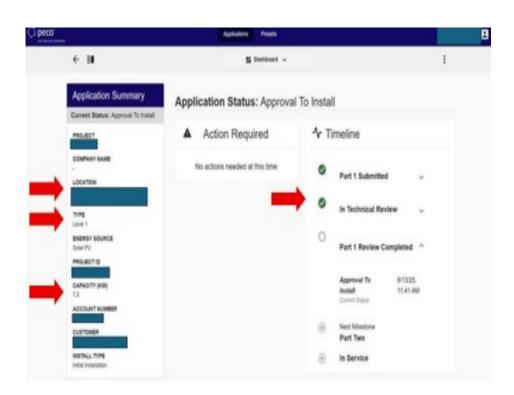
Proof of submission of the PECO Interconnection Application through the form of a screenshot of the application dashboard

Verified Information

- Location
 - Address of Work must be consistent with application
- Type
 - Level 1
- Capacity
 - Shall not exceed 10 KW AC
- Status
 - Application must be at least in submitted under Timeline

Helpful Peco Links

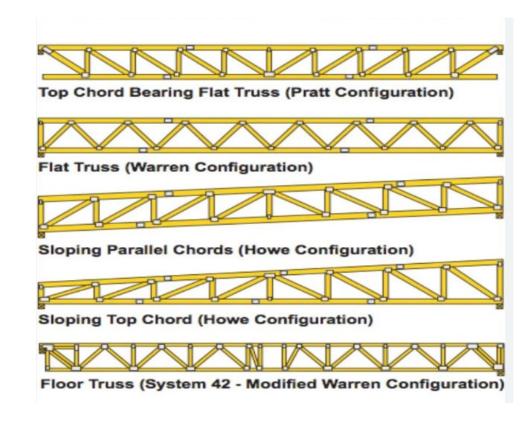
- Peco Interconnection Guidelines- https://www.peco.com/smart-energy/my-green-power-connection/developers-contractors/smaller-generators
- To register and submit your applications electronicallyhttps://peco.connectthegrid.com/#/login/



Letter from a professional engineer stating that the roof framing has been inspected

What is a roof truss? A truss is a rigid framework of triangular elements made of wood, steel, or other materials that efficiently distributes weight by transferring loads to joints, where they are subjected to axial tension or compression.

If during the contractor's evaluation they determines the roof is comprised of a truss system the applicant shall provide a letter from a professional engineer stating that the roof framing has been inspected; the proposed solar PV system has been evaluated; connections will not adversely impact the structural integrity of the framing system; and the roof framing system can withstand the additional loads applied by the solar PV system.



Executed Contract

- As of January 1, 2021, an executed contract must be submitted with all new electrical permit applications prior to the generation of a billing statement.
 - Per A-903.2 of the Philadelphia Administrative Code Electrical permit fees: The permit fee for electrical work shall be twenty-five dollars (\$25) for each one thousand dollars (\$1,000) or fraction thereof of estimated electrical construction costs. The minimum fee shall be fifty dollars (\$50). The maximum fee shall be fifteen thousand dollars (\$15,000). Except as provided in Section A-903.2.1, the construction costs shall be determined by inclusion of the following:
 - 1. All electrical equipment, conductors, conduit, etc.,
 - 2. All material,
 - 3. All labor,
 - 4. Overhead and profit.

Note: Min and Max fees are subject to change, by regulation

Executed Contract

Per Code Section A-903.2.1 of the Philadelphia Administrative Code – Calculation of construction costs for solar electric (also known as photovoltaic) systems.

Per Code Section A-903.2.1.1 of the Philadelphia Administrative Code –

Solar electric system or photovoltaic system defined: For the purposes of this subsection, the terms "solar electric system" and "photovoltaic system" shall each mean the total components and subsystems that, in combination, convert solar energy into electrical energy suitable for connection to a utilization load.

Per Code Section A-903.2.1.2 of the Philadelphia Administrative Code –

For the purpose of calculating the electrical permit fee, the electrical construction costs for any project that includes installation of a solar electric or photovoltaic system shall not include the cost of any arrays or inverters used in the installation of such systems.

Occupancy

- Installation must be on the roof of a one- or two- family dwelling.
 - Confirm Occupancy on Atlas
 - https://atlas.phila.gov/

Enter Address of location

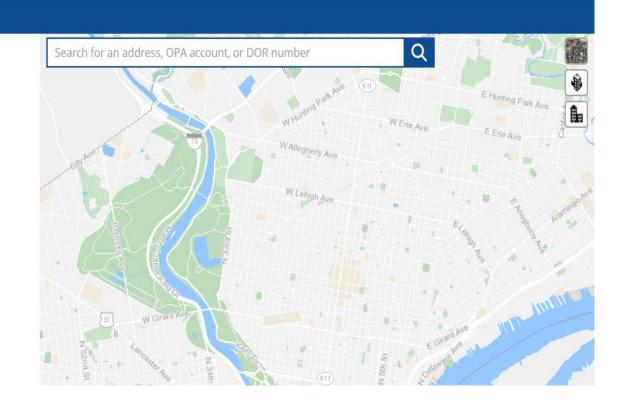
Atlas

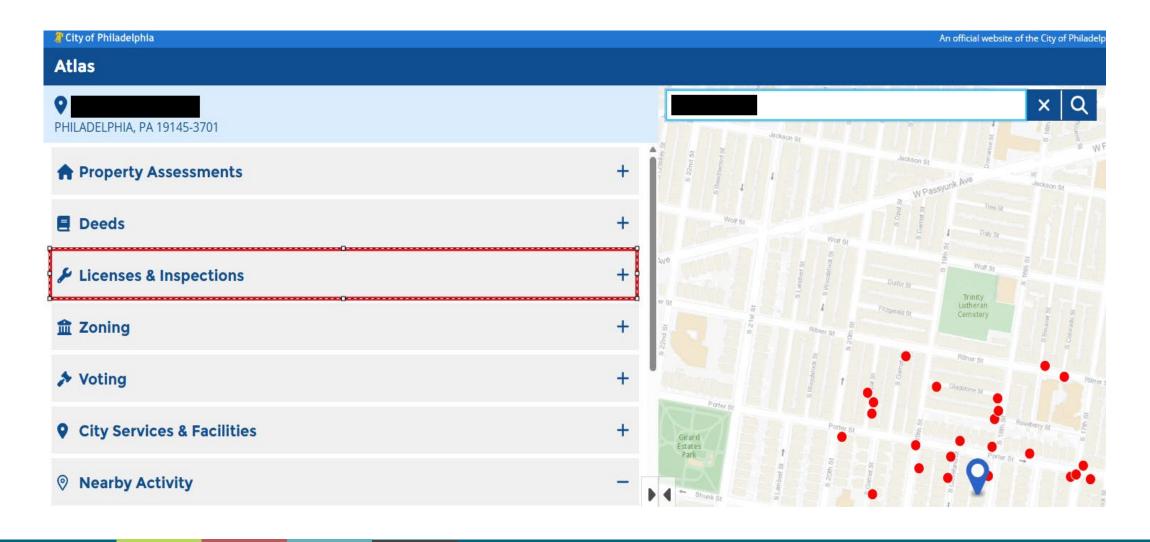
Atlas Is Your Front Door To The City Of Philadelphia.

Here are some things you can do with Atlas:

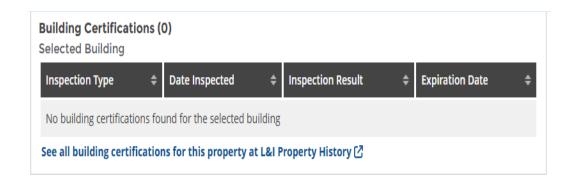
- Find your polling place
- Get the history of permits, licenses, and inspections at any address
- Research real estate information including property values, zoning, and document archives
- Get easy access to a variety of hard-to-find City resources
- View recent activity around your address, such as crimes, 311 service requests, and more
- Explore historical imagery and maps

To get started, click anywhere on the map, or type an address, intersection, property assessment account number, or Department of Records Map Registry number into the search box.





No business licenses found



Permits (2)



See all permits at L&I Property History [2]

Zoning Permit Documents (1)

formerly "Zoning Archive"



Inspections (0) Date ID Description Status No inspections found See all inspections at L&I Property History <a>[☑] Violations (0) Description Date ID **\$** Status No violations found See all violations at L&I Property History [2] L&I Appeals (0) **\$** Appeal Number **Appeal Grounds** Status Date Type No L&I appeals found See all appeals at L&I Property History [2] **Business Licenses (0) License Number** Name **†** Type Status Date

Atlas

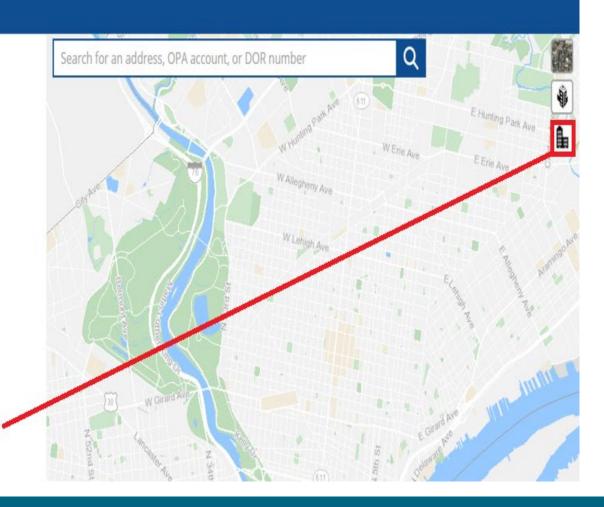
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Here are some things you can do with Atlas:

- · Find your polling place
- · Get the history of permits, licenses, and inspections at any address
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- View recent activity around your address, such as crimes, 311 service requests, and more
- · Explore historical imagery and maps

To get started, click anywhere on the map, or type an address, intersection, property assessment account number, or Department of Records Map Registry number into the search box.

Lets Check the Street View



- Looking for inconsistencies
 - Signage
 - Multiple Meters
 - Store Front (Vacant First Floor is Still Mixed Use)







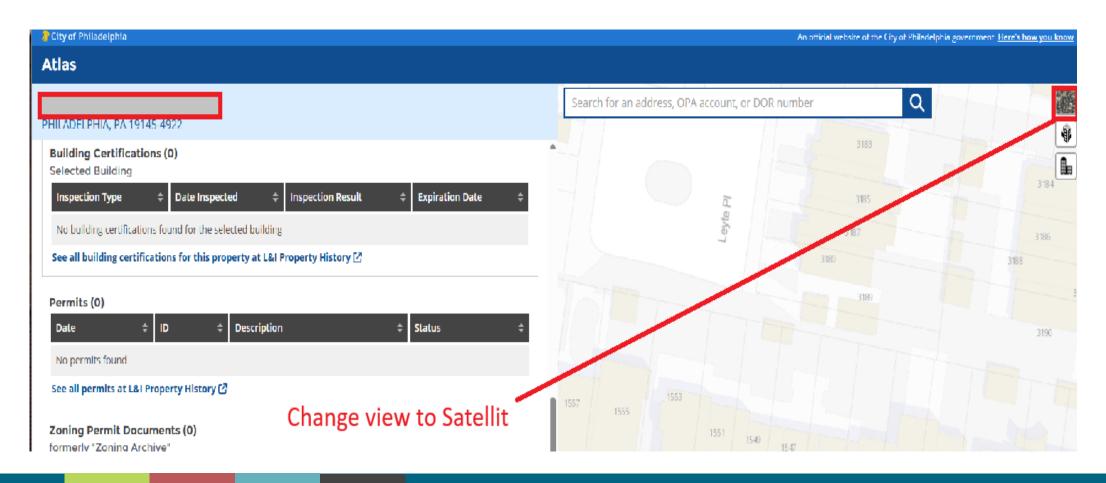
- The standard allows for installations on flat roofs.
 - o Installation on a sloped roof greater than 2:12 (17% slope) are not permitted.
 - A flat roof is any roof 0"rise 12"run to 2"rise 12"run.



Shingles

- Per 905.2.2 IRC Slope Asphalt shingles shall be used only on roof slopes of two units vertical in 12 units horizontal or greater. Any slope less than 4 units vertical in 12 units horizontal requires double underlayment.
- Most shingle manufacturers will not warranty the installation of their product on a 2" 12" pitch roof.

Atlas Satellite view



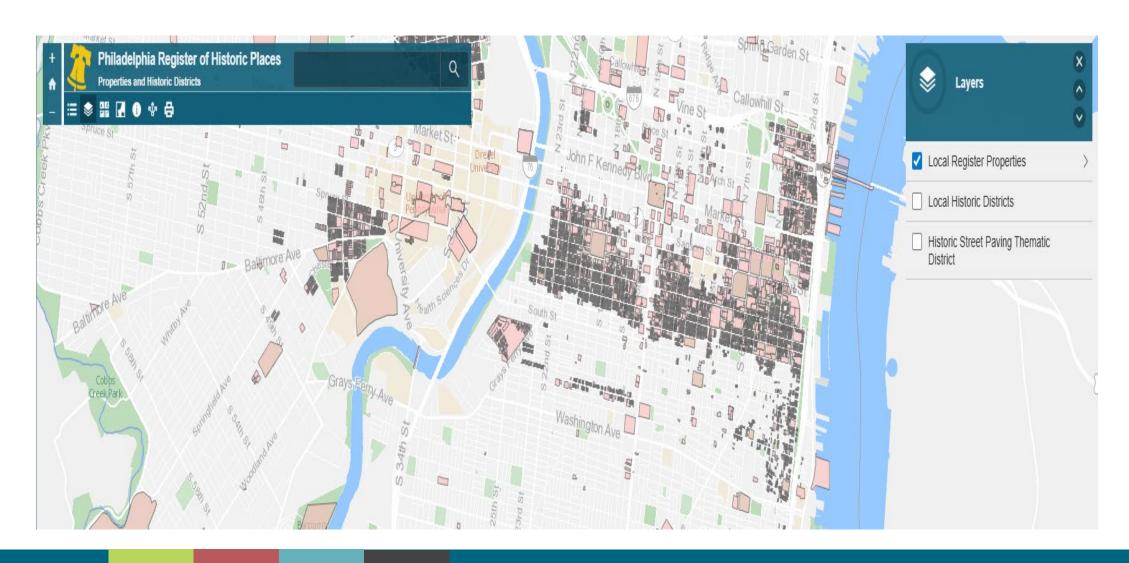
Visually sloped or shingled shingled roofs do not qualify for the EZ standard.



Designation of property as Historical

- Properties designated historical by the Philadelphia Historical Commission can not utilize the Ez Standard
- Confirm Occupancy on Philadelphia Register of Historic Places website
 - https://phl.maps.arcgis.com/apps/View/index.html?appid=0a0b23447b6b4f7097d59c580b9045fe

Designation of property as Historical

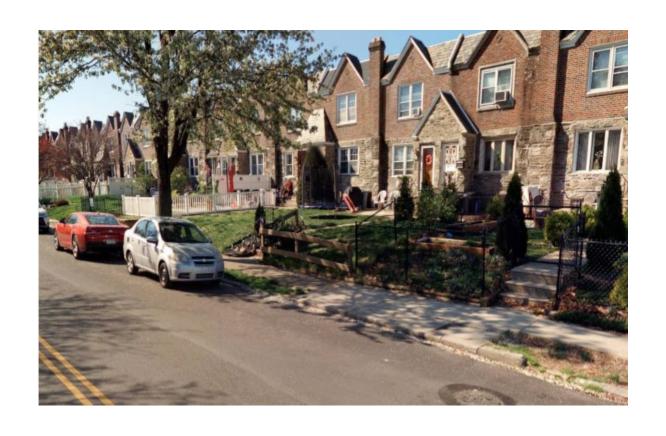


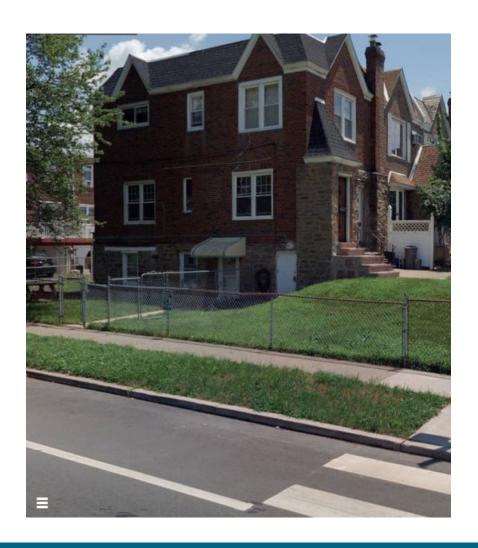
Structures Height Limitation

- Installations are limited to structures three story in height or less.
 - What is a story?
 - Any <u>story</u> having its finished floor surface entirely above <u>grade</u>, except that a <u>basement</u> shall be considered as a <u>story above grade</u> where the finished surface of the floor above the <u>basement</u> is more than 6 feet (1829 mm) above <u>grade plane</u>.
 - More than 6 feet (1829 mm) above the finished ground level for more than 50 percent of the total building perimeter.
 - More than 12 feet (3658 mm) above the finished ground level at any point.

Structures Height Limitation

Similar but Different





Maximum Size

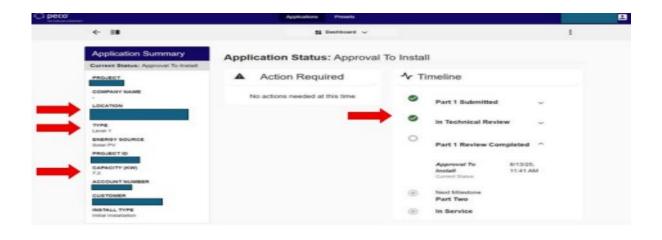
- Systems are limited to a maximum of 10 kW or less in size.
 - Consistent with PECO Level 1 Application.
 - The 10 kW is based on AC output.

INTERCONNECTION APPLICATION/AGREEMENT - PART 1 With Terms and Conditions for Interconnection For a Level 1 Review (Certified Inverter-based Units of 10kW and under)

(Application & Conditional Agreement – to be filled out prior to installation)

CUSTOMER GENERATOR CONTACT INFORMATION

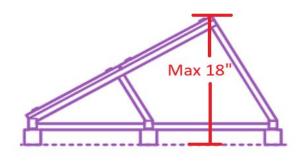
Legal Name and Mailing Address of Customer-Generator: (if an Individual, Individual's Name)



Height of System

The height of the system shall be less than 18 inches above the adjacent roof





Flat Roof Mounted



Energy Storage Systems

- Not contemplated in current EZ standard; however, systems using ESS will be excluded from EZ permitting.
- Separate building permit will be required:
 - 2018 Res and Fire Code include limited requirements on location, listing and ventilation.
 - 2021I-Codes identifymore comprehensive requirements
 - City of Phila is considering adoption of certain 2024 ESS provisions
- Department rep will reach out regarding those applications recently received.

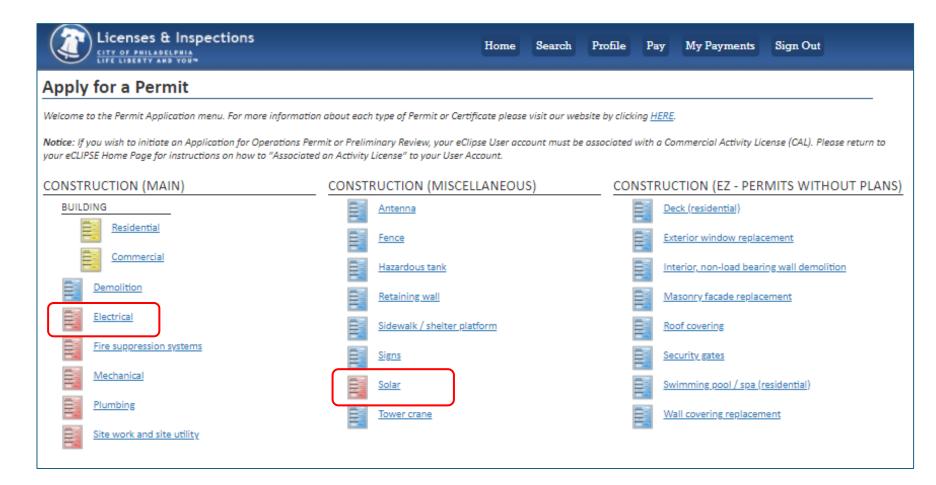
Non-EZ Requirements

- Electrical Permit Application Requirements
 - Licensed Electrical Contractor performing installation must be named
 - Plans must be sealed if the total cost of work exceeds \$25k, including arrays and inverters.
 - Proof of PECO Interconnection Application
 - o Copy of contract. Must clearly separate module and inverter costs for reduced fee
- Separate Building Permit Required
- Separate Zoning Permit Required- Need to formally define 'support structure'

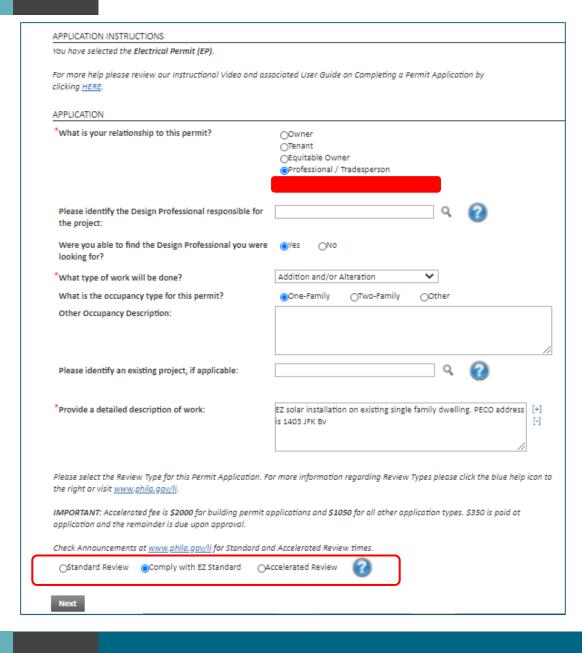
- Electrical Permit –
 Always Use
 'Electrical'
- Building Permit-Use 'Solar' Option

Note: If the applicant fails to select the 'Solar' option, they will not receive benefit of reduced building permit fee.

Standard fees will apply without reduction.

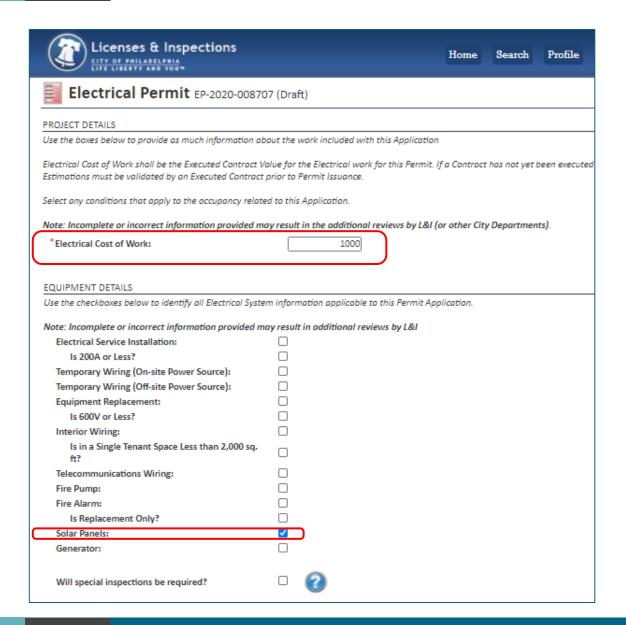


Only select 'Comply with EZ Standard' if ALL conditions are met.



Cost is used to calculate permit fee.

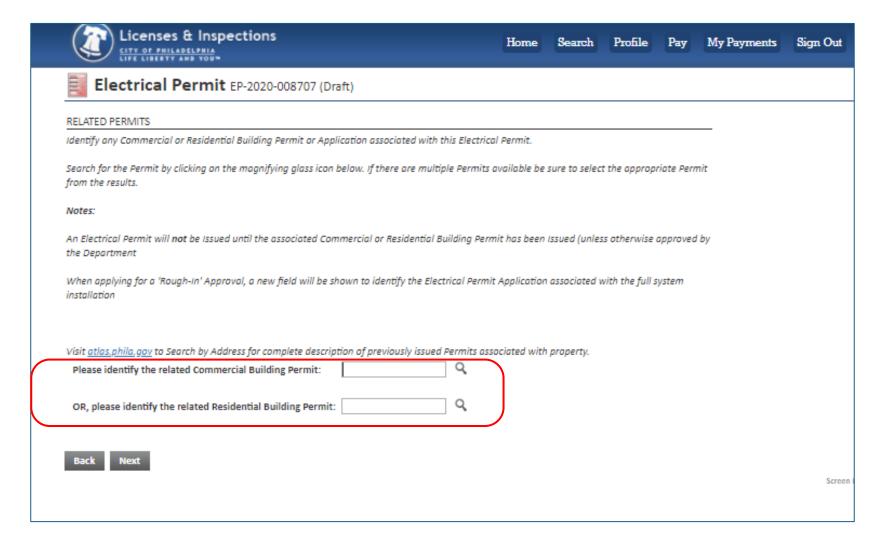
Must match the dollar value on the contract, less exemptions.



Electrical application will currently not accept a General Building Permit

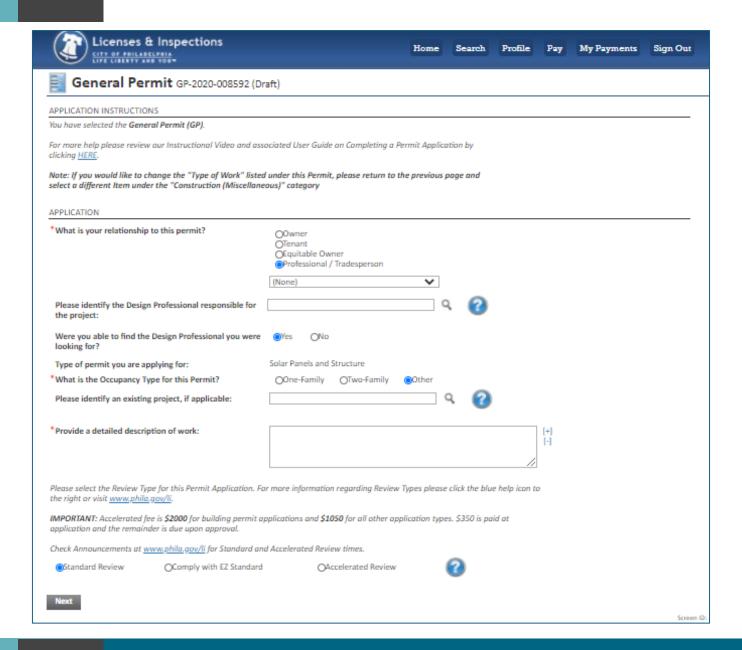
Please identify the GP in the permit description

The electrical permit will not be released until the Building Permit is issued.



Building Permit:

- Will auto-populate Solar Panels and Structures.
- Separate app designed solely for reduced fee.
- If Historic, PHC will review the building app (and not the electrical app).



Inspections

Electrical Permit

- Schedule through your 3rd party agency outside of eCLIPSE.
- 3rd party agency will provide inspection results directly to L&I.
- L&I will issue the Certificate of Approval

Building Permit

- You can request an inspection online through your public portal or through the automated phone system.
- Phone scheduling limited to a 7 day window
- May choose between AM or PM preference

Zoning

Support Structures

- Support structures must only brace solar equipment
- Height limit (including collector): 9 ft above roof (unless total building height remains within limits)
- Front Setback Requirements:
 - RSD, RSA, RTA, RM-1, CMX-1, 2, 2.5 \rightarrow 7 ft from front line (unless total height remains within limits)
 - RSA-5, RSA-6, RM-1 → Not allowed in front setback above 2nd story
 - RM-2+, RMX, CMX-3+, Industrial → 5 ft setback

Does Not Apply to Applications Eligible for EZ Standard

Ground-Mounted / Freestanding Solar Collectors

- Permitted in side/rear yards only
- Setback: Min. 2 ft from any lot line
- Height limit: 20 ft at max tilt
- Residential Limit: Max 1,000 sq. ft. surface area

Apply Under New Con/ Addition/ Partial Demo Zoning Work Type

Holds

Automatic Resolution

Once you provide the required information, the system will immediately resolve these holds:

- Contractor Not Named
- Contractor Approval Required
- Contractor License Renewal Required
- Parent Permit Not Issued

Overnight Resolution

For these holds, the system will run an overnight check to resolve them:

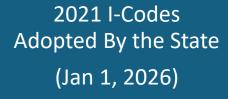
Contractor Tax Error

You can resolve it sooner by selecting "Recheck Tax Status" under the Hold.

Online Help Form Required

- Insurance Update
- Electrical Contract

Code Adoption





6-month transition



Mandatory application of I-Codes (July 1, 2026)

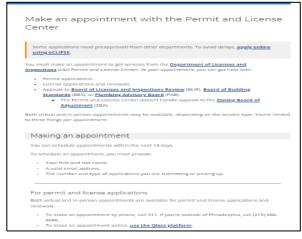
Applications filed may apply the 2018 or 2021 I-Codes.

Resources



Virtual and In-Person Appointments





Can make appointment:

- online
- Call 311
- Download app
- MSB kiosk



Virtual- next business day

In-Person- same day

May vary during peak days/ seasons

Chat



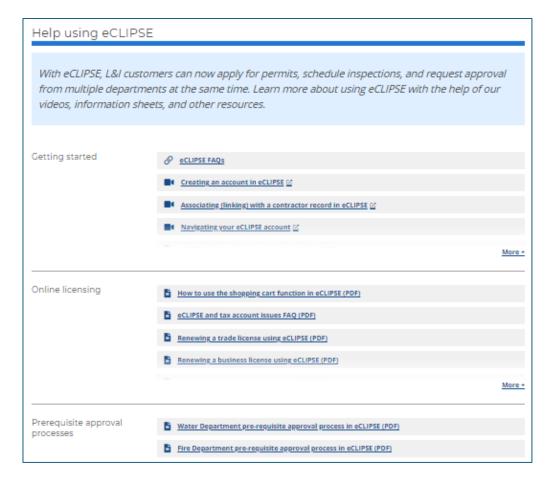
Accessible through any eCLIPSE screen
Currently Available 9-1
Live chat will show 'we are here'

Use chat for targeted application assistance, eCLIPSE questions, and escalations

Do not use chat for assistance in walking through application, plan reviewer or inspector questions, questions unrelated to L&I eCLIPSE, basic form requests

Website Help Services





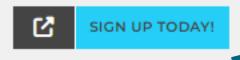
www.phila.gov/li/get-help

L&I Newsletter

- Stay up to date on L&I related news by signing up for our newsletter.
- o Go to www.phila.gov/li and scroll down. Click "Sign Up Today!"

Sign up for our newsletter

L&I's newsletter helps you stay up-to-date about permits, licenses, and more.



Thank You!!!