

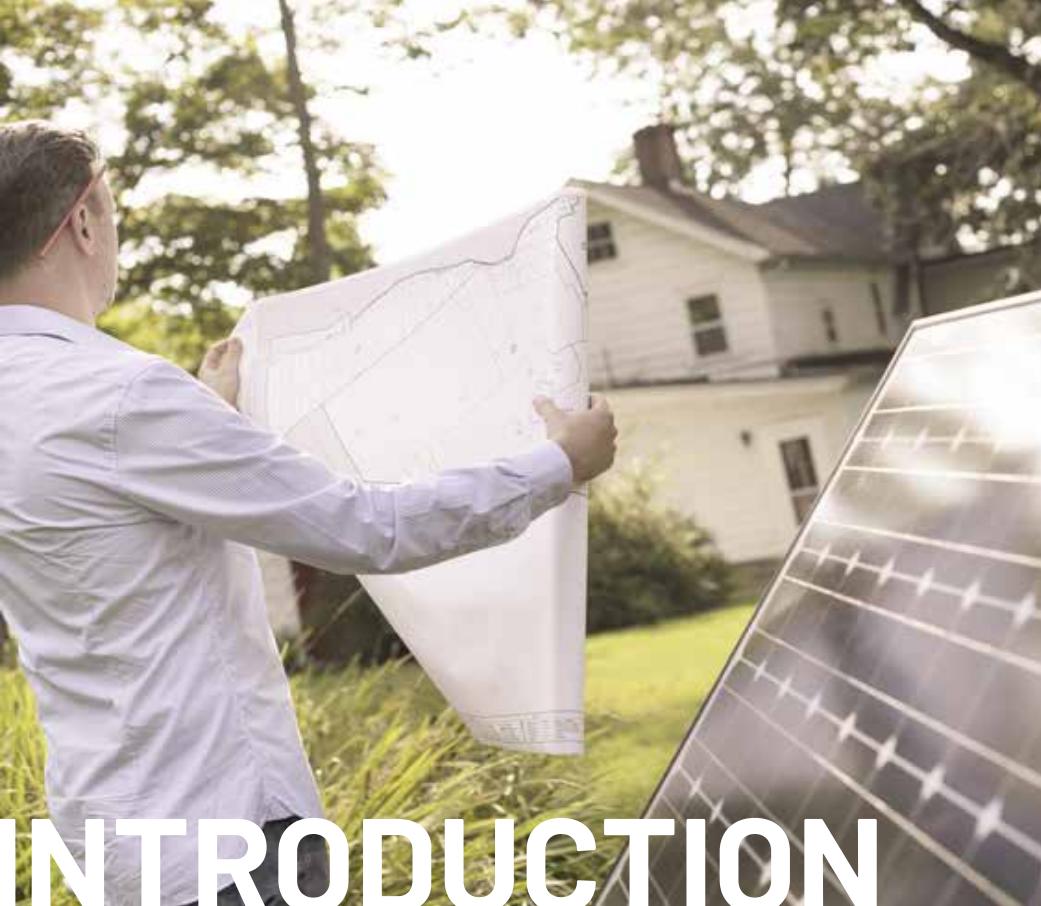
SOLAR PERMITTING

THE GRID-TIED GUIDE



DO IT YOUR WAY

UNBOUND
SOLAR®



INTRODUCTION

Before you can begin to install your Grid Tied System you'll need a permit.

It's always a good idea to assess what you'll need up front so you can quickly move through the mandatory process. Use our guideline to streamline your next move so you get it right the first time and avoid the red tape.

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APPLY FOR INTERCONNECTION REQUIREMENTS

WHAT IS IT? Before you begin, contact your utility company and ask about interconnection requirements. Interconnection is the first obstacle to overcome — it's called "Grid-Tied-Solar" for a reason: you're tied into the local power grid, and therefore the power companies need to make sure your system will be wired correctly for safety and power regulation concerns. Your utility company will confirm that the equipment you plan on using is UL 1741 certified — meaning it's okay to connect it to your power grid.

The utility company will also check to ensure that local infrastructure can support a solar power system, and that the area you're in isn't too saturated, which would make it difficult for new customers to interconnect their PV system.

WHAT TO DO:

Start by searching on your utility company site for "interconnection application." You may find an online tool to help you quickly fill out this information. Otherwise, call your local power company and ask for directions on where you can pick up or download this document. Fill out everything in your interconnection document. You will need to present this with the rest of the forms and documents that we're about to go over.

WHAT TO EXPECT: Applying for interconnection can be time consuming, with applications typically running 3-10 pages. You will need to provide certain information about your home or office building including the following:

- ➡ Location of utility meter, electrical panel(s), proposed PV array and other landmarks.
- ➡ The number of solar panels and inverters, including manufacturer and model being installed.
- ➡ The capacity rating for your planned power inverter and PV panels.

OPPORTUNITIES: You should also at this stage take a look at your state's Solar Power Incentives and tax rebates, which can help you plan your purchase accordingly, knowing how much money you'll be saving.

STEP 2



CALL YOUR LOCAL PERMITTING OFFICE

WHAT IS IT?

Call your local permitting office and speak to your **Authority Having Jurisdiction** (or AHJ) - this will either be the City Building Department or County Building Department depending on the region you live in. This would be a good time to ask about their engineering requirements as well — some AHJs require an engineer's sign-off to ensure that your roof can bear the added weight of a solar array.

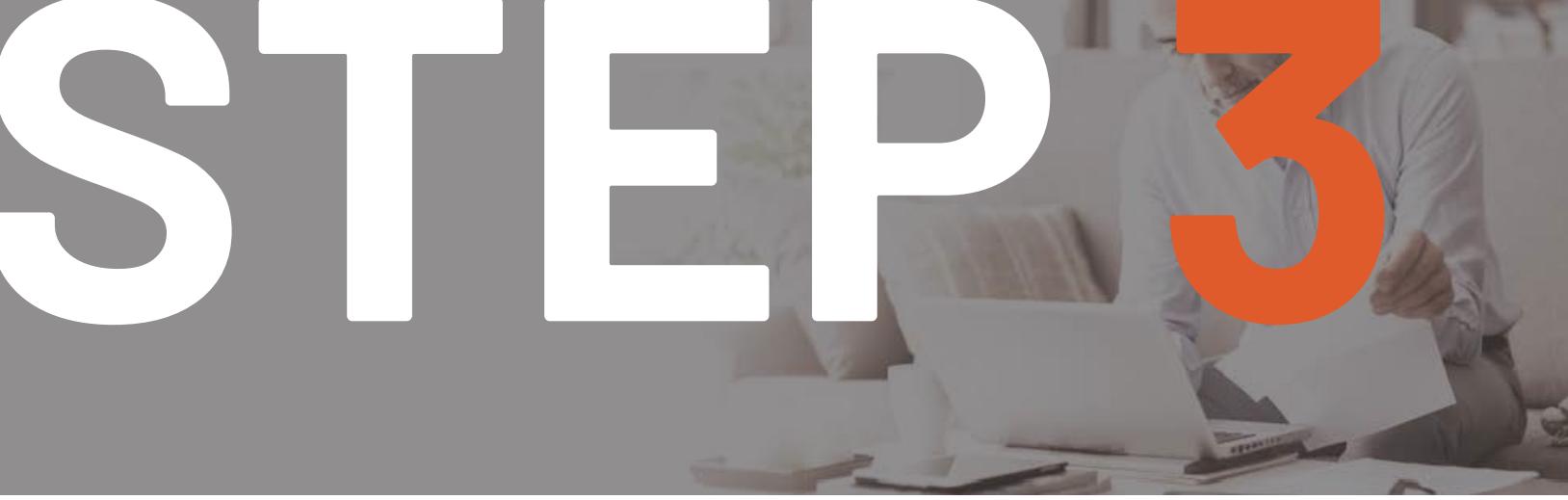
WHAT TO DO:

The best place to start is use a search engine like Google and type your town, state and 'permitting department' i.e. "Mount Shasta, California permitting building department." Request or download the proper documents and fill them out. Keep your permit with your interconnection form you already filled out.

IMPORTANT: Your house address might fall under your city building department other county building department depending on your address. Make sure you clarify with the department you are working with before moving forward to make sure you get the right documents.

WHAT TO EXPECT:

- ➔ Sometimes these agencies will have a simplified form or quick application specifically for solar and PV system installation, which can cut down on your time drastically.
- ➔ Permitting offices or AHJs are usually fairly busy, and it might take a few days or even weeks to hear back from them — consider covering all your bases with one call, and inquire about all necessary guidelines, regulations, and concerns in your call so they can address everything in order and without any back-and-forth calls. If you have any questions regarding things covered in Step 1, this would be the perfect opportunity to clear them up.
- ➔ Some AHJs require an engineer's sign-off to ensure that your roof can bear the added weight of a solar array. If you own an older home and have concerns about the roof quality, consider having an engineer assess your roof before you buy solar — check for load bearing and make sure it can endure the added weight of PV panels for a solar system.



STEP 3

GATHER IT ALL TOGETHER

WHAT IS IT?

Now that you've gotten in touch with the important authorities, checked what's required in your area, and determined the initial scope of your solar project, it's time to get the paperwork in order.

WHAT TO DO:

Fill out all the requisite forms and paperwork needed. You will need the following items:

- ➔ Specification sheets for all electrical components (panels, inverter, etc) and mounting hardware and equipment. Spec sheets for all equipment sold by Wholesale Solar can be found on each product page.
- ➔ Site map and plot plan drawn to scale.
- ➔ Electrical design drawing. These are provided with each product available from Unbound Solar as well.
- ➔ Fire safety rating for solar panels and mounting equipment. PV labels and placard placement map.
- ➔ Engineering certifications for the mounting method that approve snow and wind loads for the AHJ's requirements.
- ➔ If using batteries you will need their specification sheet, enclosure spec sheet, ventilation method with supporting materials.



SUBMIT PAPERWORK, FORMS,& DOCUMENTS

WHAT IS IT?

Now we get to make some real progress- submit all of your required paperwork, forms, and documents to the AHJ or any other relevant agencies.

WHAT TO DO:

It's a good idea to submit two copies of each form - while this may be a lot of paperwork, it ensures that your AHJ gets what they need and can have one form to file and another to verify receipt and review for accuracy. Allow yourself some flexibility and time - many AHJs and offices are swamped with various requests and filings, and it can take days or weeks before they can assess your paperwork. With this checklist you should have most of the difficult steps taken care of, so the process should go very smoothly with little else needed.

- ➡ This is often the most difficult part of the permitting process - different states (and even different counties within a state!) have different requirements and methods that their AHJs use, so expect delays, questions, concerns, and revisions to your paperwork. Some forms may need to be corrected and resubmitted, taking even longer, so plan accordingly.
- ➡ Lastly, pick up your permit, pay your fees, and start installing solar! Once approval has been granted and you've paid your fees (usually a few hundred dollars), you will need to pick up your permit - however, some agencies will mail your approved permit to you. Ask your local AHJ regarding the specifics.

STEP 5



FINAL INSPECTIONS & APPROVAL

WHAT IS IT?

Even after your installation is complete, the utility provider and building department will need to do a final walkthrough to determine that it's been installed correctly, wired according to code, and ready to switch on.

WHAT TO DO:

Once your permit and interconnection application have been accepted and approved, schedule a final inspection with your local building inspector and utility. Typically the building inspector will come first and after approving of the work, a representative from your utility will come and grant permission to interconnect your system. At this point you can follow the instructions for commissioning your system and verifying proper operation. Your system is supposed to remain turned off until this step.

THE UNBOUND SOLAR

PERMITTING CHECKLIST

(PAGE 1 OF 2)

- 1. Determine whether your home falls under city or county jurisdiction for fire codes.
- 2. Ensure the planned solar layout and install will fit while adhering to fire codes.
- 3. Call your utility company and ask for interconnection requirements.
- 4. Let the utility company know what kind of solar equipment you're using. It needs to check out as UL 1741 certified.
- 5. Consider hiring an engineer to assess your roof, checking load bearing and weather wear.
Note: some AHJs may actually require an engineer's sign-off before you can install.
- 6. Pick up or download an interconnection application, then fill it out.
- 7. Pick up and fill out the rest of your necessary forms.

You will need to cover such info as:

- Location of utility meter, electrical panel(s), proposed PV array and other landmarks.
- The number of solar panels and inverters, including manufacturer and model being installed.
- The capacity rating for your planned power inverter and PV panels.

***Note: If you have any questions on forms that you can't answer by yourself or with a Google search, call Unbound Solar and our techs will help you out.**

- 8. Contact your AHJ (Authority Having Jurisdiction) — either your City or County Building Department.
- 9. Check to see if your AHJ has a simplified or online application for solar installation approval, this can expedite the process considerably.

THE UNBOUND SOLAR

PERMITTING CHECKLIST

(PAGE 2 OF 2)

- 10. AHJs are often busy, so allow several days or weeks in your timetable to get a reply.
- 11. Gather all your forms and documents in one place. You should have:
 - Specification sheets for all electrical components (panels, inverter, etc) and mounting hardware and equipment.
 - Site map and plot plan drawn to scale.
 - Electrical design drawing.
 - Fire safety rating for solar panels and mounting equipment.
 - PV labels and placard placement map.
 - Engineering certifications for the mounting method that approve snow and wind loads for the AHJ's requirements.
 - If using batteries you will need their specification sheet, enclosure spec sheet, ventilation method with supporting materials.
- 12. Submit your documents to the proper recipient, usually your AHJ. We recommend submitting two or more copies of each document (sometimes this is required anyway) so that your AHJ can verify receipt, keep one copy on file, etc.
- 13. Allow time for approval — another few days or a couple of weeks is normal depending on how busy your AHJ's offices are.
- 14. Pick up your approved permits and pay your fees! You're ready to install your solar array.
- 15. Complete your solar installation process.
- 16. Have an engineer conduct a final inspection and approval.

CONTINUE YOUR RESEARCH

More Resources

Solar Panel Guide

Learn the key factors that influence solar panel pricing and find the perfect panels for your system.

[Get the Guide »](#)

Solar Inverter Guide

Inverters manage the flow of power through your system. Grab our Inverter Guide and get hooked up without hassle.

[Get the Guide »](#)

Solar Racking Guide

You've got your panels - but where will you put them? Download our Solar Racking Guide to learn where you should mount your solar system.

[Get an Estimate »](#)



TALK TO A SOLAR EXPERT.

Ready to get to work?

Connect with our design team for a free consultation.

[Request a Consultation »](#)