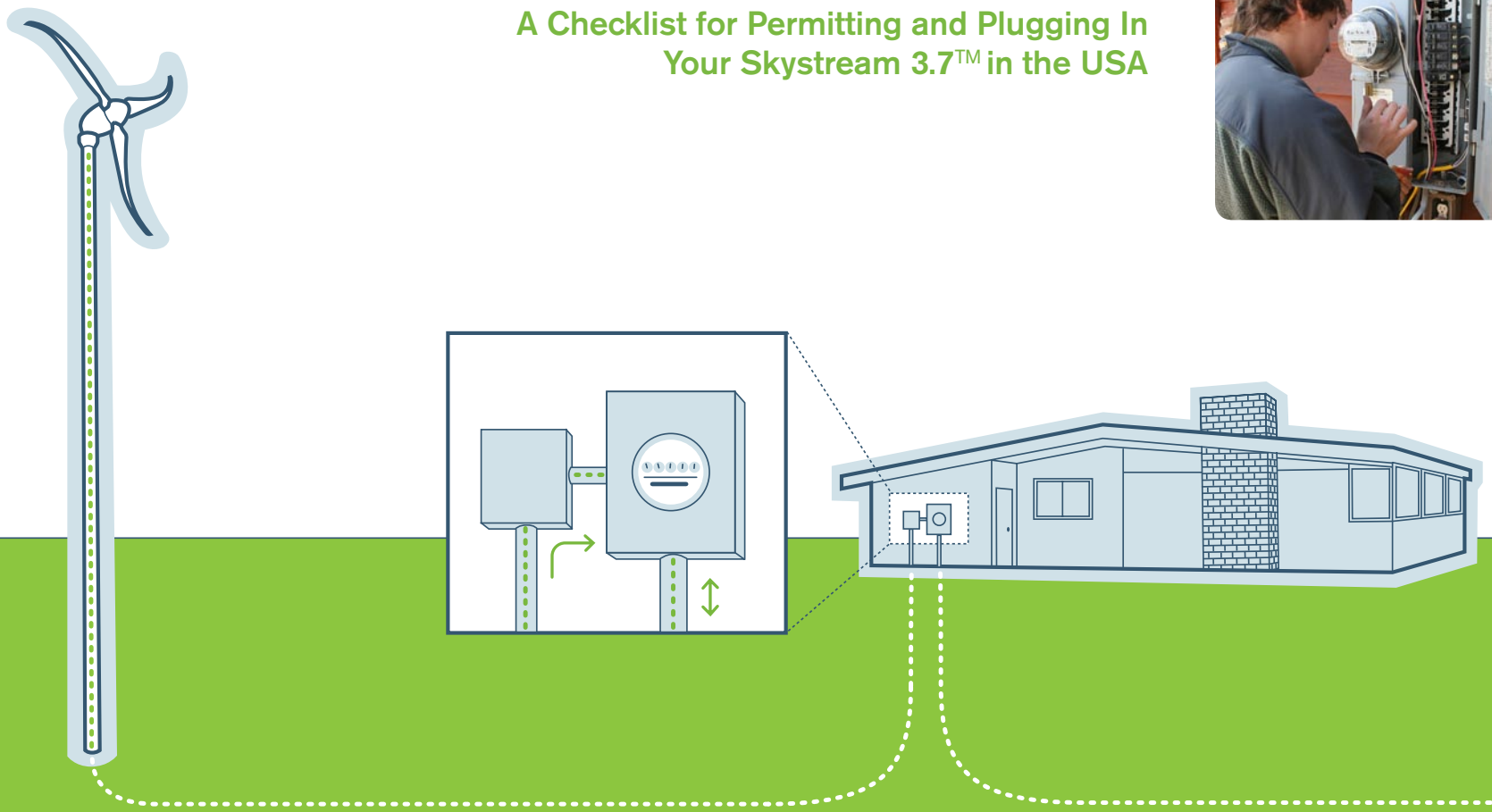
Southwest Windpower
Consumer Guide

GETTING CONNECTED

A Checklist for Permitting and Plugging In Your Skystream 3.7™ in the USA



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INTRODUCTION

This guide is intended as an overview for the consumer who wants to understand the process of permitting and connection for a utility-connected wind generator. People have been connecting renewable energy systems into their electric grid for many years. This type of system does not require batteries as the electric grid will store your energy when excess is produced. Additionally, your home will still be powered by the utility when the wind system is not producing power. Recent advances in technology have allowed more ease and simplicity in use of utility connected small wind systems. Southwest Windpower encourages you to work closely with a Southwest Windpower authorized dealer to help you with all aspects of your installation including permitting and interconnection.

STEP 1: FIRST THINGS FIRST

Interconnection: Working with your utility

Utility-connected installations can be set up either to use all power on site, supplementing your electrical use with utility power as needed, or to feed excess production back onto the grid in a net metered arrangement. Different connection standards and electrical safety considerations apply to each option.

United States Federal law (specifically, the Public Utility Regulatory Policies Act of 1978, or PURPA) requires utilities to connect with and purchase power from small wind energy systems. Many utilities offer "net metering," allowing the excess energy from a small wind system at any given time to spin your meter backwards at full retail value for all energy produced. Your first step will be to contact your utility and ask for an "interconnection agreement". This is a contract with your utility to use their meter and allows you to run excess power into the grid.

Just as when you detmermine if your site is right for a wind generator (see our Siting Guide at www.skystreamenergy.com), Southwest Windpower wants to ensure that wind is right for you. Please take the time to review all aspects of your installation, including permitting and utility connection with your dealer prior to purchase.

This guide will start you on the road to successfully permitting and interconnecting your Skystream in FOUR easy steps:

1. Interconnection with utility
2. Apply for a permit
3. Tell your neighbors
4. Sign up for Incentives (where applicable)

Many utilities have a simple interconnection agreement for small self-generators. If they do not have one, a sample interconnection application form is available at: www.skystreamenergy.com. You may wish to offer this as a guide for them to develop an interconnection agreement

Interconnection agreements vary from each utility or co-op, but all will most likely require specific safety information about the wind generator and should outline the type of net-metering agreement you have with them. Southwest Windpower products that connect to the grid are UL listed and comply with anti-islanding laws that require the system to shut down in the even the electric grid goes down. You may be the first person within your utility asking for an interconnection agreement for small wind. It is advised that you work with your Southwest Windpower authorized dealer to ensure you have the support you need should questions arise.

Most utilities will require an on-site inspection at the completion of install. By developing your relationship with the utility early, you will be ready at the time of install to "Flip the Switch."

STEP 2: APPLYING FOR A BUILDING PERMIT

Are there any local obstacles?

First check your local planning and zoning ordinances for any provisions that may prohibit or restrict the use of a Skystream structure on your property. Typical requirements include:

- Minimum parcel size
- Allowable tower height
- Setbacks from property line
- Sound level limits
- Building code and electric code compliance

As an "early adopter" of small wind generation in your community, you are playing an important role not only for our energy future but in creating roads for this new industry. Your leadership and efforts to navigate through your local process will help pave the way for others to follow. Your Southwest Windpower authorized dealer will help you will all of the processes below.

Gather information

Contact the building permit agent in your town or county planning department to obtain any required forms to be filled out and to learn more about the local process, fees, and requirements for installing your Skystream.

Prepare detailed engineered site layout map and electrical drawings to show placement of your equipment.

Your Skystream will not need FAA lights as its total tower height is below the 200-foot limit. But if you live in an agricultural area where crop dusting is common or within 20,000 feet of an airport or seaplane base, you should review regulations for air traffic notification.

Tip: Asking about sound level limits

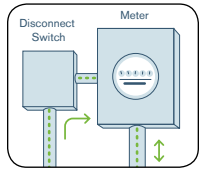
How you ask about noise ordinances may be sensitive. If you are installing a Skystream you should stress that the Skystream is designed to be nearly silent, but you are only trying to cover all possible questions in the application process.

Unlike most wind generators that produce power at lower voltages, the Skystream's 220-250 VAC output allows you to locate the turbine further away from the circuit breaker without the expense of a larger wire. Sample electrical drawings and PE calculations are provided in the Skystream manual at www.skystreamenergy.com.

Pulling a permit

Prepare your required paperwork and submit your permit application along with payment covering the filing fee. Apply for a variance if needed, such as for tower height. Typical permitting procedures include:

- Public hearings and zoning meetings
- Environmental reviews
- Drawing reviews
- Various fees



Your Southwest Windpower Authorized dealer can provide a foundation drawing and sound data. If a particular fee seems excessive or inappropriate for your situation, find out the basis for the fee. You may be able to avoid it or have it reduced.

STEP 3: TELL THE NEIGHBORS

Communicate with your neighbors about your Installation plans as a courtesy that can prevent misperceptions.

Smooth clean wind will offer the best results from the Skystream. The system needs to be placed on the highest ground away from trees, buildings or other objects that create turbulence in the wind, so the tower will likely be visible from a distance.

Notification may be required for property owners within a specified distance, such as 300 feet. Answers to most common inquiries from neighbors, including a sample letter, can be found at: www.skystreamenergy.com/skystream/resource-center (click on FAQs).

Tip: Participating in a public hearing

Preparation is key! The more answers you have ready for questions that are likely to arise, the easier the process will be. Keep in mind that one of the greatest fears for most people is change. Use your enthusiasm and positive attitude to win over any objectors. Often, it is helpful to show photos of wind installations to help people understand what you are presenting. Southwest Windpower has a number of small wind explanation sheets to help you when communicating with your neighbors. You can find at www.skystreamenergy.com.

STEP 4: SIGN UP FOR INCENTIVES

Apply for rebates and net metering (if available) prior to installation.

Incentives are often available only on a first-come, first-served basis. In order to ensure your eligibility, you may need to make a reservation with your state or utility.

For details on local incentives and selling the “green” credits from your wind power, see: www.skystreamenergy.com/skystream/will-skystream-work/local-resources.aspx.

After installation you will be ready to...Flip the Switch!

Tip: Advocating for streamlined zoning

If your local ordinances do not adequately address wind turbines, you may want to ask your local government to consider decreasing the hassle and expense needed for residents to obtain conditional use permits and encourage investments in local clean power generation by designating small wind turbines a specifically permitted use in zoning ordinances. Changing rules is well worth the time spent.

A model ordinance is available at: www.awea.org/smallwind/documents/modelzo.html

GLOSSARY OF TERMS

Distributed Generation: Small-scale power generation technology providing electricity near the point of end use.

Green Credits: Used in many states as a tradable renewable energy credit system to enable electric suppliers to meet renewable energy portfolio standards.

Interconnection: Process of connecting electrical generator to electric grid to transfer power generated.

Inverter: Electronic device that allows direct current to be converted to alternating current and appropriate voltage, phase and frequency to feed into the utility grid.

Kilowatt Hour: Use of 1 kilowatt (1,000 Watts) for 1 hour, consuming 1 kWh of electricity. The average US household consumes 12,000 kWh per year.

Net Metering: Allows your electric meter spins backward when the turbine generates more power than used on site, providing retail value for all power produced.

Rotors: Wind turbine blades, using lift to capture the wind's energy, and hub.

Total System Height: The height from ground level to the tip of the rotor at its highest point.

Tower Height: The height above grade of the fixed portion of the wind turbine tower, excluding the wind turbine and rotor.

Wind Turbine: A system that converts energy in the wind to electrical energy, comprised of a rotor, generator and tower.

ACKNOWLEDGEMENTS

This guide was developed by eFormative Options LLC on behalf of Southwest Windpower. Thanks to the American Wind Energy Association, the Canadian Wind Energy Association, the New York State Energy Research & Development Authority, Northwest Sustainable Energy for Economic Development, and the California Energy Commission for their previous guidance documents on permitting small wind turbines.

WORKSHEET FOR GETTING CONNECTED

Here is a quick reference to guide you through the process:

1. Work with your utility: Apply for an interconnection agreement.
2. Submit your permit application. Participate in public meeting if needed.
3. Talk to your neighbors. Be positive.
4. Apply for rebates and incentives (if available).

Information to keep handy:

Southwest Windpower dealer contact info

Permit agent contact info

Utility specialist contact info

Other notes

Congratulations on becoming an owner of one of the most revolutionary residential power appliances to be introduced to the consumer market!

RESOURCES FOR MORE INFORMATION

Skystream FAQs and Fact Sheets
www.skystreamenergy.com/skystream/faqs

American Wind Energy Association – Small Wind Toolbox
www.awea.org/smallwind/toolbox

Database of State Incentives for Renewable Energy
Residential Wind Policies: www.dsireusa.org/library/includes/techno.cfm?EE=0&RE=1&T=res_wind

Federal Aviation Administration Advisory Circular
www.airporttech.tc.faa.gov/Safety/wind-farm.asp

Iowa Energy Center – Wind Energy Manual
www.energy.iastate.edu/renewable/wind/wem/wem-01_print.html

Interstate Renewable Energy Council Interconnection Guide
www.irecusa.org/pdf/guide.pdf

Connecting to the Grid and Net Metering Tables
www.irecusa.org/connect/statebystate.html

Wind Powering America Small Wind Consumer's Guide
www.eere.energy.gov/windandhydro/windpoweringamerica/small_wind.asp

Windustry - Home & Farm Wind Process
www.windustry.org/SmallWind

ABOUT SKYSTREAM'S MANUFACTURER

Southwest Windpower is the world's largest producer of small wind generators (400-3000 watts) and distributes in more than 88 countries. The 20-year old company has been a pioneer in the development of wind technology and has produced more than 90,000 generators that provide power to residential homes, remote cabins, telecom transmitters, offshore platforms, water pumping and sailboats.

Your Skystream Authorized Dealer:

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