

Using a Backup Generator Safely

Outages on overhead power lines can be caused by lightning, wind, snow, ice, tree contacts, vehicle accidents, birds and other causes. It is not a question of if a power outage will occur, it is just a question of when and for how long.

Because of this, some of our customers have purchased generators to provide power during electrical outages. We clearly understand the desire to have a backup power supply during power outages on cold winter nights and we support those customers who want to do so. Having a generator and using it when service from us is interrupted is perfectly acceptable, provided it is done in a manner that is safe for you and for us. However, electric generators are potentially lethal if not used properly. There is a very real risk of injuring or killing one of the Power District's linemen working on power lines if your generator is improperly connected to your home or business. There is also a risk of damaging your appliances or even starting a fire in your home or business if a backup generator is not correctly connected, and there is also a risk of asphyxiation if the generator is not located properly. The bottom line, if you are going to use a backup generator you need to know the correct way to use it.



Installing a Generator



The most important recommendation we can provide is that if a backup generator is to be connected to your home or business electrical wiring, it should only be done so by a licensed electrician. People often make do-it-yourself electrical changes to their homes. We understand the desire to save a few

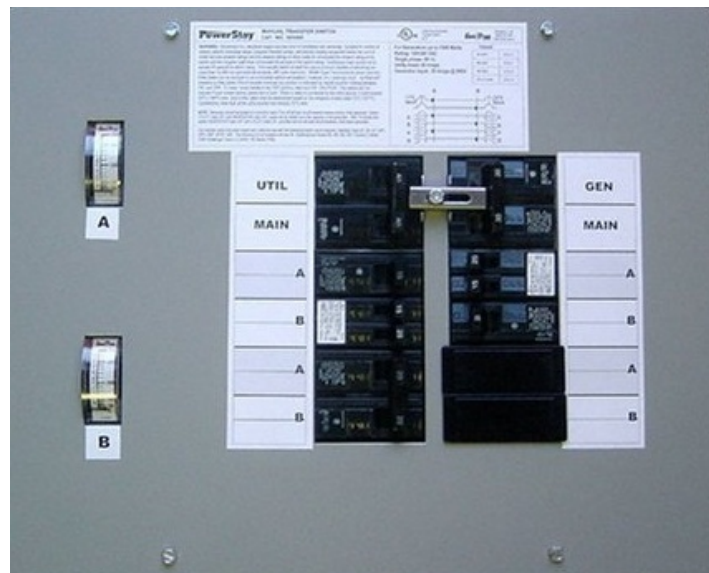
dollars, but a backup generator transfer switch installation is more involved than the typical do-it-yourself electrical job. Also avoid the temptation of using a “knowledgeable” but unlicensed handy man or neighbor. Paying someone cash under the table to save a few dollars on installation will not provide the protection you think it does. In the event of a fire or injury to others caused by an improper installation, you can be held liable and your house insurance may not cover the damage. The money saved isn't worth the risk of hurting someone, starting a fire, or damaging your generator. When budgeting for the project, include enough money for a transfer switch and for proper installation.

Get the Installation Inspected

A similarly important recommendation is to have your installation inspected by us and by the county building inspector. A proper inspection paper trail will give peace of mind by providing you with protection and indemnity for your backup generator installation. If you have questions on who should inspect your installation, contact us and we will be happy to put you in touch with the proper individuals.

Use a Transfer Switch

If you want to have a backup generator that can run all or part of your home's or business' electric needs through the building electrical wiring, the only legal and safe (meaning in compliance with the current edition of the National Electrical Code) way to do it is through a UL listed and approved transfer switch. Transfer switches can be automatic or manual. Either way it must be sized for the electrical load. If you don't want to incur the cost of a transfer switch, it still can be okay for you to use your generator as we discuss later in this article. However, without a transfer switch do not connect the generator to your home or business electric wiring. This is important and worth repeating, do not wire your generator directly into your service panel and do not plug it into an outlet.



Wiring a generator directly to a panel or plugging directly into a household outlet is referred to as backfeeding. The transformer located next to your home will "step-up" or increase this backfeed to thousands of volts and feed it into the power lines. This backfeed can kill or seriously hurt one of our linemen making outage repairs a long way from your house. When we have found people connecting generators through an outlet or by wiring to their service panel they often will argue that they always open the main breaker to prevent backfeeding. This is

illegal, it exposes you to legal claims, and if found by us will result in your electric service being disconnected. We will not gamble the safety and well-being of our employees on the hope you remember to open your main breaker.

Using a Generator to Run an Appliance

If you want to use your generator during an outage and don't have it tied into your electric panel through an approved transfer switch, place the generator in a safe location outside your home or business. When using a generator in this fashion, use the cord attached to the appliance and as necessary extend the reach of these cords with an appropriate outdoor-rated power cord having a sufficient wire gauge to handle the electrical load. Overloaded cords can cause fires or equipment damage. Don't use extension cords with exposed wires or worn shielding. Make sure the cords from the generator don't present a tripping hazard. Don't run cords under rugs where heat might build up or cord damage may go unnoticed.

The location selected for the generator must provide adequate ventilation. Never operate a generator indoors, in an attached garage, near open windows or air intake ducts for a ventilation system. Carbon monoxide is odorless and its affects may be not noticed until it is too late. Keep the generator away from flammable objects and direct hot exhaust gas away from the house.