What to Know About Keeping Backup Power Supplies Running

When storms roll through or the grid goes down, a generator becomes the most important piece of equipment on a property. It keeps lights on, refrigerators cold, and critical systems working. But a generator only runs as long as it has fuel. Understanding how generator fuel delivery works, what affects it, and what to plan for can mean the difference between a minor inconvenience and a serious problem.

How Generators Use Fuel

Most standby generators are powered by diesel or natural gas. Diesel generators are common in residential, commercial, and construction settings because diesel stores relatively well and provides good energy density. Natural gas generators hook into an existing gas line and don't require on-site storage, but they stop working if the gas supply is interrupted. For diesel units, the fuel is stored in a tank on the property, and that tank has to be refilled periodically. This is where the logistics of fuel supply become important.

Why Fuel Delivery Matters for Generators

A generator that runs out of fuel in the middle of an outage is worse than having no generator at all because you may have relied on it and then lost power anyway. Regular generator fuel delivery ensures the tank stays topped off so the generator is ready when needed. This is especially true for businesses that rely on backup power to keep operations running, or for homeowners who have medical equipment or sump pumps that need electricity.

Fuel delivery for generators is not the same as filling up a car at the pump. The fuel must be clean, dry, and free of contaminants. Water and microbial growth in diesel can clog filters and damage injectors. A good delivery service will supply fuel that meets the right specifications and will often include additives to keep the fuel stable during storage.

View the location on Google Maps

What Affects Generator Fuel Delivery

Several factors influence how often you need to schedule generator fuel delivery and how much fuel you should keep on hand. The size of the generator, the load it carries, and how long you expect to run it all matter. A small residential generator might use a few gallons per day, while a large commercial unit can burn through much more in a few hours.

Fuel storage also plays a role. Diesel stored for long periods can degrade, form sludge, or grow algae. This is why many generator owners use fuel polishing services or add stabilizers. If you keep a large tank, you need to rotate the fuel or treat it to keep it usable. Otherwise, you might have a full tank of unusable fuel when you need it most.

Seasonal Considerations

In colder climates, winter weather adds another layer of concern. Diesel fuel can gel in low temperatures, turning thick and waxy so it won't flow through the fuel lines. Winter blends with additives can prevent this, but you have to make sure the fuel delivered is appropriate for the season. Some fuel suppliers offer a winterized blend for generators that will be used in cold weather. If you live in an area that sees freezing temperatures, this is something to ask about.

Summer heat can also cause problems. High temperatures accelerate fuel degradation and increase the risk of microbial growth. Keeping the tank shaded and properly vented helps, but the fuel still needs to be monitored and replaced on a schedule.

Delivery Logistics

Getting fuel to a generator site is not always straightforward. Tanks may be located in basements, behind buildings, or in areas that are hard for a delivery truck to reach. Some sites require a long hose run, while others need a pump to transfer fuel. Before you schedule a delivery, it helps to know the tank location, the fill pipe size, and whether there are any obstacles. A good delivery company will ask these questions and plan accordingly.

For construction sites, generator fuel delivery often involves delivering to a temporary location where the tank might move as the job progresses. Coordinating with the site manager ensures the fuel arrives when and where it is needed without interrupting work.

Planning Ahead for Emergencies

Nobody wants to be scrambling for fuel when a hurricane is bearing down or a blizzard is piling up snow. The best approach is to have a relationship with a fuel supplier before an emergency happens. This way, the supplier knows your tank size, location, and typical usage. When a storm is forecast, you can call ahead and schedule a top-off. Some suppliers offer automatic delivery programs that monitor your tank level and deliver before it gets low.

It is also wise to have a backup plan. If the roads are impassable or the supplier is overwhelmed, having extra fuel stored in approved containers can buy you time. But storing fuel safely requires proper containers and a safe location away from heat and ignition sources. Check local regulations on how much fuel you can store on your property.

Common Mistakes with Generator Fuel

One frequent error is letting the tank run nearly empty before refilling. This can draw sediment and water from the bottom of the tank into the generator's fuel system, leading to clogs and damage. Another mistake is using fuel that has been sitting for months without treatment. Even with stabilizers, diesel has a shelf life, and old fuel should be replaced or polished before it is used in a critical generator.

Some people also forget to test their generator under load regularly. A generator that starts fine but stalls under load might have a fuel delivery issue. Running the generator monthly for an hour with a realistic load helps ensure the fuel system is working and the fuel is good.

Choosing a Fuel Supplier

Not all fuel delivery companies are the same. Some specialize in heating oil and may not have the equipment or experience to handle generator tanks. Others focus on on-road diesel and may not offer the additives or services that off-road and generator applications need. When selecting a supplier, ask about their experience with generator fuel delivery, the types of fuel they carry, and whether they can handle emergency deliveries outside of normal business hours.

Reliability matters. A supplier that shows up on time with the right fuel is worth more than one that offers a slightly lower price but cannot deliver when the weather turns bad. Check reviews or ask for references from other generator owners in your area.

The Role of Fuel Quality

Fuel quality is not just about the fuel itself but also about how it is handled. Fuel that is delivered in dirty trucks or stored in rusty tanks can cause problems. A reputable supplier will use clean equipment and may offer fuel testing services to check for water, microbes, or contaminants. If you have a large tank, periodic fuel polishing can remove impurities and extend the life of the stored fuel.

Additives can also help. Biocides kill microbes, stabilizers slow oxidation, and cold-flow improvers prevent gelling. Some suppliers include these additives as part of their standard delivery, while others offer them as optional extras. Knowing what is in the fuel you receive helps you plan your maintenance schedule.

Final Thoughts on Generator Fuel Delivery

Keeping a generator fueled is not complicated, but it does require attention and planning. The key is to understand your generator's fuel consumption, your tank's capacity, and the factors

that affect fuel quality and storage. By working with a reliable supplier and staying on top of maintenance, you can ensure your generator is ready to run when the lights go out.

American Energy Supply, Co. serves customers at 1704 Chichester Ave, Linwood, PA 19061 and can be reached at (610) 494-4874 for questions about fuel for generators and other equipment.