Keeping the Power On: What to Know About Generator Fuel Supply

When the grid goes down, a generator is only as reliable as the fuel that feeds it. Whether you are preparing for a seasonal storm, managing a construction site, or running a business that cannot afford an interruption, understanding how generator fuel supply works can save you time, money, and frustration. This article covers the practical side of fueling a generator, from choosing the right fuel type to scheduling deliveries and storing fuel safely.

Why Generator Fuel Matters

A generator converts fuel into electricity, but the quality and consistency of that fuel directly affect performance. Old or contaminated fuel can cause starting failures, clogged filters, and damage to the engine. Even a well-maintained generator will not start if the fuel in the tank has degraded or if the delivery system is not set up to handle the demand.

Fuel for generators is typically diesel, though some units run on natural gas, propane, or gasoline. Diesel generators are common for backup power in commercial, industrial, and residential settings because diesel fuel stores longer than gasoline and provides a good energy density. The fuel you choose should match the generator's specifications and the conditions in which it will operate.

Fuel Types for Generators

Diesel

Most medium to large backup generators use diesel. Standard diesel (on-road diesel) works for generators, but off-road diesel, which is dyed red to indicate it is not taxed for highway use, is often used in stationary generators and construction equipment. Off-road diesel is essentially the same fuel but with a different tax status, so it can be a cost-effective option for generator fuel delivery if your generator is not on a vehicle that travels on public roads.

View the location on Google Maps

Heating Oil vs. Diesel

Heating oil and diesel are chemically similar, but heating oil has a higher sulfur content and may not burn as cleanly in a modern diesel generator. Some generators can run on heating oil in a pinch, but it is best to use the fuel recommended by the manufacturer. Using heating oil regularly can lead to carbon buildup and reduced engine life.

Ultra-Low Sulfur Diesel (ULSD)

Newer generators often require ULSD to meet emissions standards. ULSD has a sulfur content of 15 parts per million or less. It is the standard for on-road diesel and is widely available. If your generator is less than a few years old, check the manual before ordering fuel.

How Generator Fuel Delivery Works

For most people, generator fuel delivery means having a supplier bring fuel to your location, either as a one-time emergency fill or on a scheduled basis. The delivery process typically starts with an assessment of your tank size, fuel consumption rate, and access points. A supplier will ask about the type of fuel your generator requires, the volume you need, and how often you expect to run the generator.

Deliveries can be made to above-ground tanks, underground tanks, or portable fuel containers. For larger installations, the supplier may use a truck with a pump and hose to transfer fuel directly into your tank. For smaller generators, fuel may arrive in sealed containers or via a smaller vehicle that can navigate tight spaces.

One important detail is the timing of delivery. If you rely on a generator for backup power, you want fuel delivered before a storm or outage, not during one. Many suppliers offer automatic delivery programs that monitor your tank level and schedule a refill before it drops too low. This takes the guesswork out of managing fuel inventory.

What to Consider When Ordering Fuel

When you call a fuel supplier for generator fuel delivery, be ready to provide a few details. First, know the capacity of your tank and how much fuel you currently have. If the tank is nearly empty, the supplier can fill it completely. If it is partially full, you may want to top it off to a specific level to avoid overfilling or mixing fuels.

Second, clarify the fuel grade. If your generator runs on off-road diesel, say so. If you need ULSD, specify that as well. A supplier can usually deliver both, but they need to know in advance so they can load the correct product.

Third, consider the access. Can the delivery truck reach your tank? Is the path clear of snow, debris, or obstacles? If your tank is in a basement or an area with limited clearance, the supplier may need a hose extension or a different delivery method. Let them know about any restrictions so they can plan accordingly.

Fuel Storage and Handling

Storing diesel fuel for a generator involves more than just filling a tank. Fuel degrades over time, especially in the presence of water, microbes, and temperature changes. Here are a few things to watch for:

- **Water contamination:** Water can enter a tank through condensation, a leaky seal, or during delivery. Water at the bottom of the tank promotes microbial growth and can cause corrosion. Drain water separators regularly or use a fuel polishing service.
- **Fuel degradation:** Diesel fuel can oxidize and form gum or sediment after six to twelve months of storage. Using a fuel stabilizer can extend the shelf life, but it is not a permanent fix. Rotating your fuel supply by using it in vehicles or equipment before it ages is a good practice.
- **Temperature:** In cold weather, diesel fuel can gel or form wax crystals that clog filters. Winter-blended diesel or additives that lower the pour point can help keep fuel flowing. If your generator sits outside in freezing temperatures, ask your supplier about a cold-weather fuel treatment.

If you have a large tank, consider having the fuel tested and polished annually. Polishing removes water, sediment, and microbial contamination, returning the fuel to a usable state. It is cheaper than disposing of old fuel and refilling from scratch.

When to Schedule Delivery

There is no single answer to when you should schedule generator fuel delivery. It depends on your usage pattern, the season, and how quickly you can get a delivery in an emergency. For a backup generator that runs only during outages, you may only need a full tank before storm season. For a generator that runs daily or weekly, such as on a construction site or at a remote facility, you will need deliveries on a regular schedule.

A good rule of thumb is to order a fill-up at least a week before the peak of hurricane or winter storm season in your area. That way, if a storm hits, you are already ready. If you wait until the power goes out, you may face long wait times for delivery, as suppliers are stretched thin during widespread outages.

Common Mistakes and How to Avoid Them

One common mistake is assuming all diesel is the same. Using the wrong grade can damage your generator or violate local emissions rules. Another is ignoring tank maintenance. A clean tank with fresh fuel starts reliably. A neglected tank with old, sludgy fuel can leave you in the dark.

People also underestimate how much fuel a generator burns. A large generator running at full load can consume several gallons per hour. If you only have a small tank, you may run out of fuel before the outage ends. Calculate your generator's fuel consumption rate and match it to your tank size. If the numbers are tight, consider a larger tank or a fuel delivery plan that allows for multiple deliveries during a long outage.

Choosing a Supplier

Not all fuel suppliers offer the same level of service for generators. Some focus on heating oil and may not have the equipment or expertise to handle generator tanks. Others specialize in commercial and industrial accounts and can handle large volumes and frequent deliveries. When selecting a supplier, ask about their experience with generator fuel delivery, how they handle emergency calls, and whether they offer automatic refill programs.

American Energy Supply, Co. is one option for customers in Pennsylvania, Delaware, and Maryland. They deliver home heating oil, on-road and off-road diesel, and marine fuel to residential, commercial, construction, generator, boat, and locomotive customers. Their address is 1704 Chichester Ave, Linwood, PA 19061, and they can be reached at (610) 494-4874.

Planning ahead and understanding your generator's fuel needs will keep your equipment ready when you need it most. Whether you schedule regular deliveries or only call when the weather looks threatening, knowing what fuel to order and how to store it makes a real difference.