

Demand Response Programs: Their Purpose and Subsequent Impact on Today's Businesses



The availability of electricity is often taken for granted by many of today's utility power consumers. To provide financial relief and ensure optimal power availability for their customers, electric utility companies commonly reduce demand on utility supplies by fluctuating the output of their regional power plants. Known as demand response, this practice provides relief to electric utility companies during times of peak demand when supporting the power demands of utility customers is either economically inefficient or technically impossible. While utility power plants may benefit from demand response practices by lowering supply voltage, such programs have the propensity to create short-term brownouts or rolling blackouts that can negatively impact today's businesses from an economic and operational stand point.

As electric energy can be difficult to store, utility providers often mitigate periods of peak demand by either reducing power at individual customer locations or raising the price of electricity to uneconomical levels. These two approaches to demand response essentially force utility customers to either switch to

alternative power sources when the availability of affordable power is reduced, or postpone tasks with larger power output demands. However, for certain applications sites like data centers or healthcare facilities, reducing consumption rates can have an adverse effect on their services as well as the performance and safety of their facilities.

To offset the cost of demand response programs, many businesses are turning to on-site generator solutions that can play a key role in energy conservation of utilities. Commonly required by building and/or fire codes, installing a standby generator can be a considerable capital investment for some businesses. While diesel-powered generators have long been the traditional choice for emergency onsite power, and can help minimize the economic impact of demand response programs, the use of natural gas-fueled generators is gaining popularity among Authorities Having Jurisdiction (AHJ) specifying alternative power solutions for commercial and industrial applications.

Given the cost savings and reliability of natural gas, this highly reliable fossil fuel is cheaper to use than diesel as its continuous supply eliminates the cost of refueling requirements otherwise allocated for the transportation of diesel fuel. Moreover, extreme weather events and other emergencies can impede the availability of diesel fuel, further jeopardizing commercial and industrial businesses relying on a steady power supply to maintain day-to-day operations. Also, natural gas does not require maintenance whereas diesel-based applications must undergo fuel polishing periodically to ensure the quality of fuel and generator performance. Much like the refueling process, fuel polishing comes at an additional cost to businesses supported by diesel generator power solutions.

By reducing the cost of ownership and eliminating long-term fuel maintenance requirements, natural gas-powered standby generators are a cost-efficient option for businesses reliant on an affordable and dependable power supply at all times. With energy and environmental policies incorporating Full Fuel Cycle analysis, natural gas, which produces 90 percent less emissions than diesel, is not only gaining popularity for its cost savings but also for being more environmentally friendly than alternative fueling options.

To add to the environmental and financial benefits natural gas-powered applications provide, energy retailers, such as energy service corporations or demand response providers, reward generator users for participating in load shedding programs. These retailers commonly pay high-use industrial consumers on a monthly basis or each time they shed loads during demand response events. Such programs usually require a demand response contract, which are commonly offered through third-party aggregators that work directly with utility companies and consumers to ensure each side follows the terms of their mutual agreement. In alternative programs, revenue received is dependent upon the amount of time it takes for each application site to shed loads when demand response programs are implemented.

Given these concerted efforts to minimize the operational consequences and enhance financial returns when demand response programs increase the price of electricity or reduce the availability of power during periods of peak demand, now is the time to consider investing in a natural-gas powered standby generator for your business.

To learn more about demand response programs and which parties to work with for the purpose of designing the ideal standby power solution for your personal application, [download Generac's demand](#)

[response whitepaper](#), or get started by using their [Total Cost of Ownership Calculator](#) for an estimated cost of ownership based upon local rates and overall product requirements.