Health care facilities must plan to manage interruptions to their natural gas service and maintain fuel for generators and other needs. Damage to natural gas service lines, fuel pipelines and distribution stations, and roadway damage following natural disasters, infrastructure failures, or malicious acts may potentially interrupt, delay, or halt access to fuels needed to sustain facility operations. A cross-disciplinary team of subject matter experts should understand the facility's fuel needs, conservation methods, and alternatives. Health care emergency managers should conduct and/or participate in local exercises with facility engineers, natural gas providers, fuel suppliers, and other external partners including jurisdictional emergency management to ensure resiliency.

Utility Failure Tip Sheet
NATURAL GAS/FUEL

Facility planners should determine how to support their routine gas-dependent services and fuel needs by taking the following steps:

- Calculate average and peak consumption rates and specify backup plans to meet those energy needs.
- Understand specific vulnerabilities for each facility (e.g., damaged gas lines in earthquake-prone regions, obstructed delivery routes for fuel trucks).
- Determine what services can be temporarily reduced or taken offline to conserve use.
- Establish a process to rapidly assess any fuel service interruption affecting clinical or support operations and determine whether to activate incident command.
- Follow processes outlined in business continuity plan.
- Train and exercise with staff and key partners, including natural gas and fuel suppliers.
- Work with suppliers to develop emergency delivery contracts. Maintain 24/7 emergency contact information.
- Determine jurisdictional and state level emergency management options for fuel support.
- Ensure the facility is considered priority for restoration of natural gas services and fuel delivery. Work with state, federal, and local emergency management partners to confirm priority status.
- Identify state or local regulatory requirements associated with interruption and restoration of natural gas-powered services.
- Locate fuel tanks in areas safe from local hazards (e.g., protected from flooding, wildfire, tornadic, seismic activity).
- Explore feasibility of a combined heat and power system (cogeneration), particularly during new construction.
- Consider installing alternate power sources that do not require the use of fossil fuels.
- Identify the facility's fuel needs outside of the structure, such as for ambulances and helicopters, and establish an alternative supply plan.
- Explore establishing a fuel depot for employees to fill their cars during gas shortages to promote retention. Consider providing incentives to employees who use alternatives to single-occupant vehicle commuting.

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N NATURAL GAS OPERATIONS

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- Identify facility operations dependent on natural gas (e.g., heating, cooking, laundry, water heating) and establish alternatives to maintain services.
- Adhere to maintenance schedules for all natural gas system components.
- Know how to manually shut off service rapidly in the event of infrastructure damage.
- Have a natural gas leak response plan that integrates with the local fire department.
- Consider having a natural gas detection meter on site, particularly in areas of seismic risk.
- Implement conservation measures to reduce demand.
- Plan redundant energy sources or adaptation of services (e.g., switching natural gas systems over to propane).
- Establish/review contracts with backup prepared food suppliers and develop emergency food plans.
- Have facility emergency food plans for loss of gas/electricity that do not require fuel for preparation.
- Consider outsourcing laundry and other services that use natural gas.

KEY N Need C Considerations

N FUEL FOR GENERATOR OPERATIONS AND OTHER NEEDS

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- Know the type of fuel used by facility generators and ensure it is properly stabilized and preserved.
- Maintain a fresh, onsite fuel supply to support several days of backup power. Align fuel plans with 96-hour sustainability assessments.
- Calculate the amount of fuel needed to maintain generator power for an extended time and establish reordering thresholds before supply exhaustion. Identify critical services supported with life safety generator power and recognize that full load fuel consumption (peak load) will likely differ from consumption when generator testing occurs (non-peak).
- Identify other facility services that may need fuel (e.g., vehicles, cafeteria services).
- Maintain adequate fresh fuel onsite to support vehicle and other needs for gasoline in case of delivery problems or infrastructure damage.
- Maintain multiple fuel vendor options and understand their plan and timeline to resupply your facility after an emergency causing road/infrastructure damage. Consider identifying fuel suppliers out of state or region to respond to large scale disasters.
- Ensure contracts are in place for additional fuel supply, including estimated emergency delivery times.
- Determine potential emergency management resources for alternative sources of fuel or delivery method.
- Develop security plan to ensure no tampering or theft.
- Determine need for fuel polishing (filtration) or treatment system.
- Consider having different types of generators (i.e., natural gas versus gasoline operated) or dual-fuel or multi-fuel generators to mitigate shortages of one type of fuel.
- Understand use and storage issues if using diesel fuel in a cold weather environment (e.g., the need for additive to keep diesel from congealing or gelling).

Related ASPR TRACIE Resources

- Utility Failures Topic Collection
- Utility Failures in Health Care Toolkit

Other Resources

- Healthcare Facilities and Power Outages: Guidance for State, Local, Tribal, Territorial, and Private Sector Partners
- Resilient Power Best Practices for Critical Facilities and Sites with Guidelines, Analysis, Background Material, and References