ASPR TRACIE Technical Assistance Request

Requestor: [Redacted]
Requestor Phone: [Redacted]
Requestor Email: [Redacted]
Request Receipt Date (by ASPR TRACIE): 23 October 2017
Response Date: 26 October 2017
Type of TA Request: Standard

Request:

The requestor noted that there is an executive order in Florida that requires nursing centers and assisted living facilities to install generators that can cool a section of a 120-bed facility for 96 hours in the event of an emergency or disaster. The requestor asked for information on best practices, lessons learned, and mitigation strategies related to installing generators at these facilities.

Response:

The ASPR TRACIE team reviewed several open source materials and existing ASPR TRACIE Topic Collections—namely the Long-term Care Facilities and Utility Failure Topic Collections—for resources on generators installed in nursing homes and assisted living facilities. We categorized the resources gathered in the following five sections: Section I includes regulatory related documents; Section II provides guidance documents; Section III includes plans, tools, and templates; Section IV provides education and training materials; and Section V includes other related resources.

The ASPR TRACIE team also gathered the following comments related to this subject from ASPR TRACIE Subject Matter Expert (SME) Cadre members. Please note: These are direct quotes or paraphrased comments from emails and other correspondence provided by ASPR TRACIE SME Cadre members in response to this specific request. They do not necessarily express the views of ASPR or ASPR TRACIE.

SME Cadre Member 1:

- States may establish requirements that exceed those set forth by the federal government, which is the case in this instance. Regarding financing, healthcare facilities may consider acquiring low interest loans from the U.S. Department of Housing and Urban Development healthcare facilities' mortgage program which may make these renovations more affordable (versus using a standard mortgage industry approach).
- Facilities may also wish to explore solar options that are starting to be used by healthcare facilities that would minimize fuel storage requirements. The standard number of hours of generator power to date has been capped at 72 (due to challenges associated with storage).

I. Regulatory Resources

Agency for Health Care Administration. (2017). Nursing Home Emergency Power Plan.

Rule number 59AER17-1 was created after Hurricane Irma caused the loss of electrical power in several healthcare facilities in Florida, resulting in the death of eight senior citizens at a Rehabilitation Center in Hollywood Hills. This emergency rule establishes a process for nursing homes to obtain sufficient equipment and resources to ensure that the ambient temperature of the nursing homes will be maintained at 80 degrees or less within the facilities for a minimum of 96 hours in the event of the loss of electrical power. Prompt implementation of this rule is necessary to ensure continuity of care and to ensure the health, safety, and welfare of residents of Florida's nursing homes.

Centers for Medicare and Medicaid Services (CMS). (2017). Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers Final Rule – Long Term Care Facilities.

CMS issued this rule to: establish consistent emergency preparedness requirements for healthcare providers participating in Medicare and Medicaid; increase patient safety during emergencies; and establish a more coordinated response to natural and human-caused disasters.

Department of Elder Affairs, Federal Aging Programs. (2017). Procedures Regarding Emergency Environmental Control for Assisted Living Facilities.

This notice covers emergency rule number 58AER17-1, which establishes a process for the Department of Elder Affairs to ensure that licensees of assisted living facilities develop and implement plans to maintain ambient temperatures at or below 80 degrees Fahrenheit for a minimum of 96 hours in the event of the loss of electrical power to an assisted living facility.

Yale New Haven Health System Center for Emergency Preparedness and Disaster Response (YNHHS-CEPDR). (2017). Emergency Preparedness CMS Conditions of Participation & Accreditation Organizations Crosswalk.

The Yale New Haven Center for Emergency Preparedness and Disaster Response Emergency Preparedness CMS Conditions of Participation & Accreditation Organizations Crosswalk was created in collaboration with a number of national subject matter experts. Emergency and disaster related program, policy, communication, training and exercise elements of regulatory and accreditation standards were mapped to the CMS Emergency Preparedness Conditions of Participation. Every effort was made to ensure that the mapped regulations and accreditation standards matched as closely as possible. However, this document should be used only as a resource for reviewing and updating healthcare emergency preparedness plans and does not replace existing federal, local, or association guidance. NOTE: Generator requirements for long-term care facilities are identified on page 52 (under Additional Requirements).

II. Guidance Documents

Office of Statewide Health Planning and Development, Facilities Development Division. (2011). Electrical Requirements for Health Care Facilities. Review Guide for: Hospitals, Nursing Facilities, and Clinics.

This guidance document provides multiple checklists on the electrical requirements for various healthcare facilities, including nursing facilities.

III. Plans, Tools, and Templates

California Hospital Association. (n.d.). Loss of Utilities/Services. (Accessed 10/23/2017.)

This webpage includes links to many resources related to healthcare facilities preparing for and responding to utility outages. There are links to presentations, tools categorized by utility system, best practices, and lessons learned.

Healthcare & Public Health Sector Coordinating Councils. (n.d.). Planning for Power Outages: A Guide for Hospitals and Healthcare Facilities. (Accessed 10/23/2017.)

This checklist can help emergency planners prepare for and respond to power outages in their facilities.

Spectrum Health. (n.d.). 96 Hour Operations Impact Chart. (Accessed 10/23/2017.)

This chart can help healthcare facility staff plan responses for various types of outages (e.g., gas, electric, water). The second table indicates estimated time frames for activating agreements and rebooting systems.

Stymiest, D. (2008). Taking Care of Business – How Hospital Electrical Shutdowns Can Facilitate Emergency Management.

The author shares a comprehensive approach to managing hospital electrical power shutdowns in light of the increasing complexity of hospital infrastructures and operational constraints. He illustrates how using an electrical "shutdown" as a pre-planned and scheduled exercise can help train staff; sample shutdown resources are included in the appendices.

U.S. Army Corps of Engineers. (n.d.). The Emergency Power Facility Assessment Tool. (Accessed 10/23/2017; users must register for free and create profile.)

Healthcare and other critical infrastructure organizations can enter and store the information regarding their respective critical public facility generator requirements (along with required connection materials) into this online tool. The data is stored in a protected database and can help expedite delivery and installation of generators at

prioritized and approved facilities during emergencies or disasters where commercial power is unavailable. This web site also offers facilities a permanent storage location and the ability to update the information as facility requirements change.

National Oceanic and Atmospheric Administration. (2016). Solar Roadmap.

This website provides information and links to Solar Roadmap, an interactive tool that government agencies and industry stakeholders can use to obtain information on a community's solar market potential.

U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response. (2015). HHS emPOWER Map.

The map features de-identified population data, down to the zip code level, for Medicare beneficiaries that rely upon certain life maintaining electricity-dependent medical and assistive equipment. It also features real-time National Oceanic and Atmospheric Administration severe weather tracking capabilities to help community partners identify areas that may be impacted by severe weather and thus at risk for prolonged power outages. Together, this data assists community partners, such as hospitals, EMS, emergency managers, electric companies, and civic organizations, to better anticipate, plan for, and rapidly assist electricity-dependent populations within their communities.

IV. Education and Training

Federal Emergency Management Agency. (2016). IS-815: ABCs of Temporary Emergency Power.

This course can help emergency planners and responders understand the requirements associated with providing temporary generator power to facilities.

National Fire Protection Association. (2017). Emergency!: Preparedness, Planning, Generators: The New Rules Affecting Health Care.

The speakers share the background of the CMS rule and related implementation challenges and resources available to assist provider organizations in carrying out requirements. They also discuss their firsthand experiences working in healthcare facilities after Hurricane Katrina, where utility outages presented nearly insurmountable challenges.

V. Other Resources

Lorenzi, N. (2015). Critical Features of Emergency Power Generators. Government Regulations and a Heightened Focus on Disaster Preparedness Drive Advances in Emergency Power Generators. Health Facilities Management.

The author of this resource describes the government regulations that are in place with regard to emergency power generators for healthcare facilities, more specifically hospitals.

National Electrical Manufacturers Association. (2017). Backup Power Systems.

This resource identifies various factors that healthcare facilities should consider when installing a generator.

U.S. Department of Energy. (n.d.). Case Study: Ground-Mounted Solar Array in Healthcare. (Accessed 10/23/2017.)

This article addresses the installation of a 1,140 kilowatt (kW) ground-mounted solar photovoltaic (PV) array at the Madera (CA) Community Hospital in October 2011. The array offsets approximately 40% of the hospital's electricity consumption. It is located on an adjacent property owned by the hospital, with a single-axis tracking design to maximize energy production. NOTE: While this article does not address the use of the array during disasters, it demonstrates how solar options have been used by healthcare facilities (per the comments made by ASPR TRACIE SME Cadre Member 1 above).

Wells, D. (2013). Understanding Joint Commission Standards for Healthcare Emergency Power Systems. MTU Onsite Energy.

The author discusses recommendations for healthcare facilities related to emergency power systems based on the Joint Commission standards.