Assessment: Temporary Session Assessment

Summary Information

This TRN Lite Assessment identified the following critical functions and their relative weighting factors:

Critical Function	Weighting Factor	Tier	Attached Critical Loads
no critical functions entered			

The assessment also identified the following critical loads at the site. In the TRN Lite's risk calculations, critical loads inherit the weighting of the function they support. Additionally, the assessment identified the tolerable outage duration (TOD) for each critical load, or the how long it would take for an energy or water supply outage to unacceptably disrupt the critical function supported by the critical load.

Critical Load	Critical Function	Associated Facilities	Associated Resource Requirements
no critical loads entered			

Risk

Resilience solutions in this document were generated to address the risk drivers that make up the highest 50% of the total calculated risk (or more). Unweighted risk in the TRN Lite can be interpreted in terms of expected hours of disruption. Weighted risk accounts for the relative importance of the critical functions supported by critical loads by multiplying unweighted risk by the appropriate criticality weighting factor for each risk scenario. Results are presented in terms of weighted risk. Weighted risk does not have units; rather it should be used as a tool to compare relative risk levels instead of evaluating the absolute values.

TRN Assessment Risk Outputs

    Unweighted Risk: 0 hrs/yr
    Weighted Risk: 0

Best Practices

Consider options for reducing greenhouse gas emissions

Impacted Risk Drivers: **Best Practices**

Many sites are looking to enhance their resilience posture while also working towards larger goals of net-zero emissions. Consider solutions such as implementing energy efficiency improvements, transitioning from propane/diesel generators to solar energy systems with battery backup, switching fuel types to lower emissions fuels, or using dual-fuel equipment. Particularly in cases where generators are used for applications besides backup power (e.g., peak shaving), these types of solutions can contribute greenhouse gas emission reduction.
Related Links:

- Resources for Planning and Implementing Federal Distributed Energy Projects
- Process for Planning and Implementing Federal Distributed Energy Projects
- REopt Web Tool
- Distributed Energy Interconnection Checklist

Develop distributed resources

Impacted Risk Drivers: **Best Practices**

Reduce risk to the site from outages of the primary electricity supply by developing onsite distributed energy resources that reduce utility grid dependence, such as diversifying electricity supply through onsite generation systems such as solar photovoltaic electric systems, wind power, and microgrids. These systems may provide additional benefits, such as reducing site emissions.
Related Links:

- Resources for Planning and Implementing Federal Distributed Energy Projects
- Process for Planning and Implementing Federal Distributed Energy Projects
- REopt Web Tool

Develop emergency/continuity plans

Impacted Risk Drivers: **Best Practices**

Reduce risk by developing or enhancing continuity of operations or emergency management plans for critical functions examined within the TRN Lite. These plans ensure that the site can continue to perform its critical mission during a wide range of emergencies and outage durations. Note that emergency management plans tend to detail short-term plans while continuity of operations plans detail how to continue operations during an extended emergency event or disruption. Best practices include addressing orders of succession, delegations of authority, descriptions of roles and responsibilities, descriptions of how different critical functions will reconstitute in the event that normal facilities or systems are inaccessible or unavailable, updating with recent hazard data to prepare for extreme weather events, and testing, training, and exercises supporting the reconstitution. If the site does not have robust emergency/continuity of operations plans — or the plans lack specific guidance to risk drivers identified in this exercise — consider developing or enhancing sitewide plans to improve site resilience.

Related Links:

- [Emergency Response Plan](#)

Diversify water supply

Impacted Risk Drivers: **Best Practices**

Reduce risk to the site from outages of the primary water supply by diversifying the water supply and considering redundant water supplies, including but not limited to: underground reservoirs for additional reserve capacity, soil water storage, groundwater banks, hybrid potable and non-potable water backup systems, and aquifer storage or recovery.

Related Links:

- [Alternative Water Sources](#)
- [Alternative Water Projects: Implementation Steps](#)

Explore grid flexibility opportunities

Impacted Risk Drivers: **Best Practices**

Reduce risk to the site from outages of the primary electricity supply by engaging with the utility to support grid flexibility updates or pilot projects, such as a community microgrid. Grid flexibility can provide resilience benefits by reducing the chance of a primary supply outage during periods of high demand or by providing local backup to critical loads. One type of grid flexibility option may be for the site to provide load shedding services, which may include, but are not limited to: demand response participation, islanding, broader grid interactive and efficient buildings, or manual load shedding plans. Working with the utility or community can also ensure that resilience benefits at the site are shared across a broader group of stakeholders, which may also reduce the site's financial contributions to specific projects. For federal sites, grid flexibility projects may also require engaging with cybersecurity personnel to ensure that the site can receive and react to signals from the utility without exposure to unacceptable cybersecurity risk.

Related Links:

- [Utility Program and Utility Energy Service Contracts for Federal Agencies](#)
- [Federal Smart Buildings Accelerator](#)
- [Microgrids for Energy Resilience: A Guide to Conceptual Design and Lessons from Defense Projects (PDF)](#)
- [Grid-Interactive Efficient Buildings](#)
- [Blueprint for Integrating Grid-Interactive Efficient Building (GEB) Technologies into U.S. General Services Administration Performance Contracts (PDF)](#)

Identify opportunities for transmission redundancy

Impacted Risk Drivers: **Best Practices**

Reduce risk to the site from outages of the primary electricity supply by working with the utility to identify opportunities for redundant feeds, transmission lines, and distribution lines based on site size and needs. Redundant transmission can provide resilience benefits by reducing the restoration time or by preventing or reducing the impact of an outage to the site if the outage is due to a specific feed or line.

Related Links:

- [Utility Program and Utility Energy Service Contracts for Federal Agencies](#)
- [FEMP Utility Program Navigator](#)

Partner with utility on strategic investment plans

Impacted Risk Drivers: **Best Practices**

Reduce risk to the site from outages of the primary electricity supply by working with the serving utility to understand their long-term planning. Sites may be able to help the utility develop strategic investment plans for energy system upgrades that will help reduce electricity outages at the site.

Related Links:

- [50001 Ready Program](#)

Critical Functions

no potential solutions

Critical Loads

no potential solutions

Redundancies

no potential solutions

Hazards

no potential solutions

Load Failures

no potential solutions