

# Microgrid Engineering Design Specifications



## Overview

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This Unified Facilities Criteria (UFC) provides criteria on installation microgrid design requirements, performance metrics to inform design, sequence of operations, commissioning and validation, and sustainment.

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### [IEEE Recommended Practice for the Planning and Design of the](#)

This specification provides the recommended practice for the planning and design of microgrids. Additionally, there is a bibliography included as an annex that lists citations referred to in this

### [UFC 3-550-04 Resilient Installation Microgrid Design](#)

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### **How to Build a Microgrid**

Often completed during the feasibility assessment, this design lays out the basic technology types, sizes, locations, and methods of interconnecting the microgrid systems.

### [Comprehensive Guide to Microgrid Design: Application and](#)

Designing a MG involves a comprehensive, meticulous planning process beyond mere hardware selection. The multifaceted nature of MG design requires a slight approach to selecting and sizing





## Microgrids 101

Preliminary microgrid conceptual design for a microgrid solution including DER optimal source sizes, enabling equipment such as electrical switchgear, communication, microgrid

### [Microgrid System Project Development Checklist](#)

The included items are intended for use in the development of a commercial-scale microgrid and help identify the key actions to be taken during the project planning, design, procurement, and



### [7 key electric codes impacting microgrid design](#)

This white paper will explore how key articles of the National Electric Code (NEC) impact microgrid design and engineering to ensure safe and reliable operation.

### [Microgrid Conceptual Design Guidebook, 2022](#)

Microgrid design options can be compared directly for cost and performance benefits relative to community-identified energy system performance goals. These steps are expanded and discussed in



### [Microgrid Conceptual Design Guidebook, 2022](#)

This guide is meant to assist communities - from residents to energy experts to decision makers - in developing a conceptual microgrid design that meets site-specific energy resilience goals.

## [Integrated Models and Tools for Microgrid Planning and Designs](#)

This white paper focuses on tools that support design, planning and operation of microgrids (or aggregations of microgrids) for multiple needs and stakeholders (e.g., utilities, developers,



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