

# INTRODUCTION TO MICROGRIDS

A marketing overview prepared by Laura Fedoryshin

## Course Overview

As the demand for reliable and sustainable electricity grows, microgrids are becoming a critical solution for energy resilience and efficiency. **INTRODUCTION TO MICROGRIDS** is a course that provides an overview of microgrid fundamentals, components, control systems, and renewable energy integration within a microgrid-controlled network. This course introduces key concepts, making it accessible for professionals new to microgrid technology.

## Key Features

1. **Foundational Learning:** Gain a broad understanding of microgrid technology, including renewable energy integration, power management, and controller architecture.
2. **Industry-Relevant Knowledge:** Learn about best practices in microgrid design, ensuring efficiency, sustainability, and compliance with industry standards.
3. **Practical Insights:** Explore real-world applications and examples that illustrate microgrid implementation and management.

## Microlearnings

1. **Introduction to Microgrids** – Learn the fundamentals of microgrids, their components, and how they enhance energy resilience and sustainability.
2. **Distributed Energy Resources (DERs) Technologies** – Explore small-scale energy solutions like solar, wind, and battery storage that support microgrid operations.
3. **Microgrid Dynamics: Navigating Key Challenges** – Understand environmental, regulatory, and societal factors affecting microgrid deployment.
4. **Assessment of Energy Impacts** – Evaluate the efficiency, sustainability, and economic benefits of integrating microgrids into power systems.
5. **Microgrid Global Trends and Challenges** – Discover emerging trends, industry advancements, and obstacles shaping the future of microgrid technology.

## Market Positioning

1. **Target Audience:** Energy professionals, engineers, utility operators, and sustainability advocates looking to gain a foundational understanding of distributed energy resources.
2. **Competitive Edge:** As industries and governments prioritize microgrid technology for energy resilience, this course equips professionals with essential, up-to-date insights to stay ahead.