

Energy and Sustainability Fundamentals

Understanding the forces shaping the future of digital infrastructure.

As demand for digital services continues to accelerate, data centers have become critical to modern economies and everyday life. At the same time, increasing energy consumption, environmental impact, regulatory requirements, and stakeholder expectations are placing new pressures on organizations to operate more efficiently, responsibly, and sustainably.

Energy and Sustainability Fundamentals provides a comprehensive introduction to the key concepts, metrics, and business considerations shaping modern data center operations. Learners gain a practical understanding of how energy enters, moves through, and leaves a data center, how efficiency is measured, and how sustainability decisions influence operational performance, risk, compliance, and long-term business success.

The course explores the complex relationships between IT equipment, power systems, cooling infrastructure, water consumption, carbon emissions, and financial outcomes, helping learners understand the trade-offs that organizations must navigate to achieve sustainable growth.

Why complete the Energy and Sustainability Fundamentals course?

As energy demands and sustainability expectations evolve, organizations require professionals who understand both the technical and business implications of energy and environmental performance. This course provides the foundational knowledge needed to confidently engage in sustainability initiatives and contribute to informed decision-making across the data center lifecycle.



ENERGY AND SUSTAINABILITY TRAINING PATHWAY AT-A-GLANCE

Explore the essential principles of energy use, efficiency, and sustainability in data centers.

Gain a practical understanding of how data centers consume energy, interact with utilities and the environment, and why sustainability is becoming a critical consideration in data center design, operations, and business strategy.

Delivered via distance learning, this course provides the fundamental knowledge needed to understand energy and sustainability concepts and their application across modern data center environments.

Completion of this program is recommended for anyone working in, supporting, or making decisions related to modern data center operations, design, or strategy.

Learn how to:

- Gaining a clear, structured understanding of how energy and sustainability apply specifically to data centers
- Understand how energy and sustainability principles apply specifically to data center environments.
- Evaluate the relationships and trade-offs between IT, power, cooling, water, carbon emissions, and operational costs.
- Confidently interpret sustainability metrics, reporting requirements, and regulatory expectations.
- Assess how sustainability decisions influence operational performance, financial outcomes, risk, and organizational reputation.
- Recognize energy and sustainability as strategic business drivers rather than solely technical challenges.

Key topics covered include:

- Data Center fundamentals
- Energy within a Data Center
- Key efficiency and Sustainability metrics
- IT equipment
- Power
- Cooling
- Water
- Carbon accounting
- Global Reporting & Regulation
- Financial fundamentals
- Energy Procurement
- Business strategy for Data Centers
- Energy reuse

Enroll if you are:

- New to data center energy management or sustainability initiatives.
- Seeking a foundational understanding of energy and sustainability concepts within digital infrastructure.
- Supporting Data Center operations, facilities, engineering, procurement, finance, or business strategy functions.
- Looking to develop the knowledge required to participate in sustainability planning and decision-making.
- Preparing for advanced education and certification pathways in energy efficiency and sustainability.

COSTS AND TIME:

The course cost is US\$995 per participant. The course is self-paced and on demand. Access is provided via the Uptime Education learning management system. Participants have three months from their enrollment date to complete the course, which takes approximately 6–8 hours.

Next steps:

Upon successful completion, learners can continue their professional development through the following programs:

- Certified Data Center Audit Professional (CDCAP®)
- Certified Data Center Energy Professional (CDCEP®)
- Certified Data Center Sustainability Professional (CDCSP®)
- Accredited Sustainability Advisor (ASA)



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