







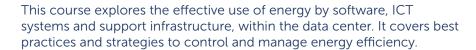




# **Energy and Cost Management**

3 DAYS

21





# Learning Outcomes

Upon successful completion, students will be able to:

- Discuss electricity consumption and rates from a data center perspective, sustainability and monitoring industry organizations
- Discuss building and data center codes, carbon taxes and the climate change agreement
- Identify the corporate drivers for energy management, corporate and social responsibility, brand management, etc.
- Define and explain the basic metrics for data center efficiency, including DCIE and PUE
- Explain data center maturity
- Identify key roles and responsibilities in the energy efficiency initiative within a data center
- Define efficiency imperatives in the design of a data center
- Explain the role of IT equipment within the data center
- Discuss IT power management and

device environmentals according to ASHRAE

- Apply basic energy efficiency management techniques to the areas of IT, cooling and electrical systems
- Analyze the capabilities and limitaions of metrics
- Report data center costs



## 5 reasons to choose our courses:

1

Courses aligned to international standards

2

Expert instructors with over 10 years experience

3

Interactive learning experience

4

Blended learning solutions (classroom and online)

5

Specialist career progression tracks for advanced learning

### Who should attend?

Any person involved in the management of mission critical IT and telecoms infrastructure, or those involved in design consultancy, including:

- Data Center Operator
- Data Center Design Consultant
- IT Architect
- IT Purchaser
- Environmental Champions within IT Department
- Price \$2850 | €2150 | £1750

Professional Development Hrs	21
Exam	1 hour, open book
Pre-requisites	Recommended 1-2 yrs verifiable experience in a data center/computer room environment
Suggested progression	Critical Operations Professional





# **Course Content**

"The course leader was passionate and kept students engaged throughout the three days."

> GREG BYRNE, Data Center Manager, Deutsche Bank

### Macro Global Energy Trends Overview

- Electricity consumption
- Electricity rates
- Data center perspective
- Sustainability
- Industry organizations

### Building and Data Center Codes

- Codes
- Carbon taxes
- Climate change agreement

### Data Center Energy – Business Drivers

- Revenue drivers
- Cost drivers
- Brand and reputational drivers
- CEO view
- Environmental drivers

### Measurement and Metrics

- Measurement and monitoring
- Data center facility metrics
- Sustainability metrics
- IT metrics
- Future metrics

### Data Center and IT Managing Metrics

### Data Center Maturity

- Data center maturity model
- Data center maturity model metrics

### Data Center Costs

### Holistic Management and Roles

- Roles
- Holistic management
- Data center units
- Resilience
- Service levels
- Load vs efficiency

### IT Equipment (Server, Storage, Network) Server

- Storage
- Network
- Software

### IT Power Management and Environmentals

- IT power management
- IT device environmentals
- ASHRAE 2008 update
- ASHRAE 2011 update
- Other factors

### Cooling and Electrical System Efficiencies and Future Trends

- Airflow management
- Best practices and ROI
- Heat rejection
- Economizers
- High temperature and high efficiency
- Humidity
- Electrical system efficiencies

















