DCPRO

DCP® Practitioner DCS Specialist

Energy and Cost Management

24 PDH Price: $2835

Course Details

The Energy and Cost Management course provides participants with all the essential knowledge and skills they need to save energy, reduce operational costs and carbon emissions, comply with legislation and meet their organisation's environmental goals. Course topics include monitoring and targeting, energy auditing, solution development and regulatory issues.

Learning Outcomes

- 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 limiations of metrics
- Report data center costs

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Course Content

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