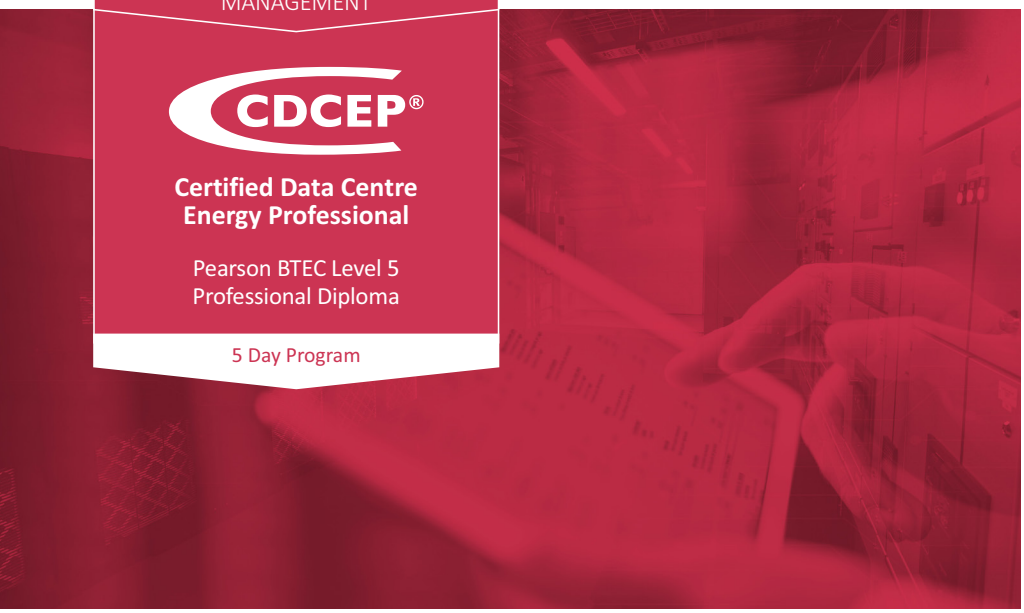
MANAGEMENT

CDCEP®

Certified Data Centre Energy Professional

Pearson BTEC Level 5 Professional Diploma

5 Day Program



CNet Training

An Uptime Education Company

Global Leading Technical Education for the Digital Infrastructure Industry

Certified Data Centre Energy Professional (CDCEP®)

Become an expert in data centre energy management. Learn how to create an energy efficiency plan for your data centre. Includes creation, implementation, analysis and formulating recommendations with the ultimate objective of reducing energy use and cutting carbon emissions.

Program Overview

The Certified Data Centre Energy Professional (CDCEP®) program considers the global focus on how energy prices and environmental protection is driving the need to reduce energy wastage through greater efficiency. It is of utmost importance and an issue that continues to be foremost in the minds of those operating data centre facilities.

The five-day program teaches expertise in energy efficiency and provides the tools to make a significant contribution to the energy strategy and effectively deal with, and manage, energy related issues and deliver efficiencies.

Strategically plan, design and implement an energy plan for data centre facilities, focusing on energy efficiency. Learners will be introduced to current energy profiler tools and models to analyse site data and formulate a comprehensive action plan to implement real energy savings potential and capacity reclamation.

The use and distribution of power will be explored considering server and IT equipment, and how usage can quickly spiral out of control when it is not being measured, monitored and maintained correctly. In addition, the use of redundant and back-up power infrastructure will be analysed considering the power utilisation for air-conditioning, fire suppression, security, alarms and other supporting systems.

A certified CDCEP® also considers the requirements for compliance, having a full understanding of national and international regulations, codes, standards and the US DoE Data Centre Energy Practitioner (DCEP). During the program, learners will be provided a valuable opportunity to access the latest industry standards.

The CDCEP® program is led by one of CNet's expert Instructors and is available via remote attendance or classroom-based.

Program Duration

5 days requiring pre-class study of approximately 20 hours.

Program Format

75% Theory, 25% Case Study.

Program Objectives

Gain an unrivalled knowledge and forward-thinking approach to energy provision. Become an expert in the analysis of energy usage, identify opportunities for efficiencies, structure and implement a detailed energy efficiency plan.

Learner Profile

This program is targeted at individuals who are responsible for the management and use of energy within a data centre.

Pre-requisites

Experience of working within a data centre environment is essential; preferably with two years experience in a technical IT or facilities role. If you would like to discuss your experience or suitability for this program, please contact us.

Program Requirements

Learners are required to undertake pre-class study, which is fully supported by an experienced and dedicated online support team.

Learners are required to have:

- A webcam and microphone enabled laptop with unrestricted wireless internet connectivity and a pre-installed web browser
- A suitable application for reading/annotating PDFs and a suitable application for editing standard office documents such as Microsoft Word, PowerPoint, and Excel

Qualification

- Internationally and industry recognised Pearson BTEC Level 5 Professional Diploma in Certified Data Centre Energy Professional

Certification

- Official Certified Data Centre Energy Professional (CDCEP®) certification
- Use of the CDCEP post nominal title
- Use of the official CDCEP® digital badge
- Use of the CDCEP® logo

Certifications are a commitment to lifelong learning and offer the perfect portal to ensure knowledge, skills and certification remain current and up-to-date. Each certification gained requires re-certifying every three years via an online learning management system.

Additional Awards

- Continuing Professional Development (CPDs)
- 7 IEEE Continual Education Units (CEUs)

"The added value and knowledge I gained from the CDCEP® program enables me to understand and resolve energy efficiency issues."

CDCEP® Learner Comment

Certified Data Centre Energy Professional (CDCEP®) Topics

Need for Energy Efficiency
- CO_2 emissions issues
- Impact of increased energy demand
- Data centre constraints

Corporate Social Responsibility
- Understanding Corporate Social Responsibility (CSR)
- Implementation of ISO 26000

Energy Audits
- Energy audit process
- Primary audit environments
- Actions to improve energy efficiency

Energy Evaluation
- Understanding energy consumption
- Identification of areas of concern
- Evaluation and modelling sources

Achievable Expectations & Energy Forecasting
- Achievable expectations
- Industry best practices
- Analysis and calculations
- Forecasting growth

Energy Metrics
- Need for metrics
- Current industry metrics
- New proxy metrics

Capacity Reclamation
- Understanding design parameters
- Importance of the four key constraints
- Decommissioning
- Capacity management

KPIs & Metrics
- Defining KPIs
- Selecting and preparing KPIs
- KPI measuring models

Business Continuity
- Business continuity considerations
- Site selection considerations
- Energy efficiency considerations

Energy Strategy
- Energy efficiency policy
- Energy efficiency strategy
- Energy action plan and management review

Energy Efficiency Plan
- Elements of the energy efficiency plan
- Continual monitoring

Delivery of the Energy Efficiency Plan
- Deployment of the energy efficiency plan
- Measuring, monitoring and reporting
- Energy efficiency procurement

Site Specific Energy Audits
- Audit direction
- Site specific audit plans
- Key energy audit areas

Energy Use Systems
- Major energy use systems
- Energy profile changes
- Optimisation actions

System Specific Analysis
- IT analysis
- Power infrastructure analysis
- Environmental analysis
- Cooling analysis

Analysis Toolsets
- Data centre toolsets

Active Energy Efficiency Measures
- Establishing an energy baseline
- Measuring and monitoring
- Data analysis and energy plan preparation
- Real-time monitoring

Return on Investment
- Return on Investment (ROI)
- IT value
- Financial planning
- Total Cost of Ownership (TCO)

Codes & Best Practice
- U.S. Department of Energy (DoE) standards
- EU Code of Conduct

A Strategy for Energy Management
- Energy management roadmap
- Energy management team
- Energy awareness

Immediate Energy Actions
- Importance of the four key constraints
- Identifying the immediate concerns
- Actioning the immediate concerns

Medium-term CapEx Actions
- IT measures
- Cooling measures
- Power measures
- CapEx and ROI impacts

Long-term CapEx/OpEx Actions
- Long-term power efficiency
- Long-term cooling efficiency
- CapEx and OpEx evaluation

Processes & Procedures
- Process and procedure requirements
- Process and procedure monitoring and control

Future Technical Developments
- New developing technologies

Energy Efficiency Accreditations
- Environmental accreditations
- Energy accreditations
- Data centre energy accreditations

There are a number of group and individual case studies to formulate energy efficiency plans throughout this program.

CDCEP® Benefits for Individuals

- Understand how to build a comprehensive energy plan and make a significant contribution to your organisation's energy strategy
- Learn to identify the appropriate energy use systems to audit and what to look out for
- Learn how to use energy assessment tools to analyse site data and implement real energy savings
- Become an 'energy champion' within your organisation, able to accurately identify and recommend effective ways of reducing energy and cutting carbon emissions

CDCEP® Benefits for Businesses

- Gain an understanding of why the data centre needs an energy plan
- Understand the impacts of legislative non-compliance and confidently take action to mitigate these risks
- Discover how a well thought-out energy plan can improve efficiency and reduce costs throughout the data centre
- Attract more customers with the same energy philosophy by showcasing your team's expertise and your organisation's values