

Energy Infrastructure Resilience and Risk Management in a Changing Climate

COURSE OVERVIEW

This course gives an extensive insight into the complex challenges facing energy systems as global climate conditions continue to evolve. It combines theoretical frameworks with practical tools for assessing risks, designing resilient systems, and implementing policies that strengthen energy security in uncertain environments. Participants will examine the vulnerabilities of critical infrastructure to extreme weather events, natural disasters, and long-term climate shifts, while learning strategies for adaptation, mitigation and continuity planning.

WHO SHOULD ATTEND?

This course is tailored for energy professionals, infrastructure planners, policymakers, utility managers, risk and safety specialists and sustainability practitioners who are responsible for ensuring the reliability, resilience and sustainability of energy systems in the face of climate-related threats. It is also suitable for consultants, researchers, and decision makers seeking to align infrastructure planning with emerging global resilience standards.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Develop a comprehensive understanding of climate risks to energy infrastructure.
- Apply risk assessment and resilience planning methodologies to real-world energy challenges.
- Design strategies for adapting energy systems to withstand extreme weather and long-term climate changes.
- Strengthen decision-making skills for crisis management and infrastructure investment.
- Enhance organizational capacity to meet sustainability and resilience goals.
- Integrate climate risk intelligence and digital tools to support proactive infrastructure management.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- Collaborative approaches for sustainable energy systems amid evolving climate challenges.
- Techniques to enhance energy infrastructure resilience against climate risks.
- Strategies for integrating distributed energy resources and smart grid technologies.
- Financial and policy tools to support resilient energy infrastructure investments.
- Importance of early warning systems and real-time data for proactive response.
- How to assess and manage risks from extreme weather events and long-term climate changes.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded