Introduction to Utility-Scale Solar PV Farm Development

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Dubai (UAE)



Introduction to Utility-Scale Solar PV Farm Development

Ref: 20222873_215151 Duration: Dubai (UAE) Fees: 4900 GBP

Course Description

This comprehensive 1-week course provides an in-depth introduction to utility-scale solar PV farm development. Participants will gain practical knowledge on site selection, design principles, construction processes, and operations management for large-scale solar projects. The course combines theoretical concepts with real-world case studies to offer a holistic understanding of utility-scale solar development.

Learning Objectives

- Understand the key factors in site selection and assessment for utility-scale solar projects
- Learn design principles and optimization techniques for large-scale solar PV systems
- Gain insights into construction processes, equipment, and project management
- Develop skills in operations, maintenance, and performance monitoring of solar farms
- Explore financial models, regulatory frameworks, and environmental considerations

Course Modules

Day 1: Introduction and Site Selection

- Overview of utility-scale solar industry
- Site assessment and selection criteria
- Land use and zoning considerations
- Environmental impact studies

Day 2: System Design and Engineering

- Solar PV technology and components
- Array design and layout optimization
- Electrical system design
- Grid interconnection requirements

Day 3: Construction and Project Management

- Construction planning and scheduling
- Equipment selection and procurement
- Quality control and safety measures
- Project management best practices



Day 4: Operations and Maintenance

- Commissioning and start-up procedures
- Monitoring systems and performance analysis
- Preventive and corrective maintenance
- Troubleshooting common issues

Day 5: Financial and Regulatory Aspects

- Financial modeling and project economics
- Power purchase agreements
- Regulatory compliance and permitting
- Future trends and innovations

Practical Wins for Participants

- Ability to assess and select optimal sites for utility-scale solar projects
- Skills to design and optimize large-scale solar PV systems
- Knowledge of construction processes and project management techniques
- Expertise in operations, maintenance, and performance optimization of solar farms

