



Course length: 2 hours

Subscription: 2 months - 12 months

Cost: \$295-\$350* **Prerequisites:** None

CPE credits: 4 (see website for details)

A study of renewable energy sources and technologies

Renewable resources are the fastest growing electric generation source globally. Renewable Energy Overview explores the primary renewable resources used to generate electricity, the technologies used for each resource, and how each technology works. It also examines the key attributes that determine the benefits, costs, and challenges associated with renewable generation technologies and the future potential for each resource. This learning path is intended for those with limited experience in renewables as well as those with a background in renewable energy who need more details on the various technologies.



WHO WILL BENEFIT FROM THIS COURSE?

- Energy buyers for large electric users
- Utility or retail marketer procurement professionals
- Utility account representatives and department managers
- Employees of ISOs/RTOs needing a vision of the current and future impact of renewables
- Regulatory professionals needing a background in renewable energy
- Professionals such as attorneys, accountants, finance, PR, etc., who are becoming active in renewable energy
- Technical employees such as engineers and Information
- Technology professionals needing a fundamental overview of renewables and issues with integration
- Professionals from the advocacy community who want to learn the business aspects of green power

- Blades
- Towers
- Wind with storage
- Interconnection
- Key attributes: technology maturity, costs, grid integration, environmental concerns
- Growth in wind power
- Market share
- Resource potential
- The future of wind power

WHAT PARTICIPANTS WILL LEARN

- What each renewable resource is
- The technologies used to generate electricity from each renewable resource
- How the technologies convert the energy in the resource to electricity
- How each technology is interconnected to the grid
- The key attributes that determine the benefits, costs, and operational characteristics associated with renewable generation technologies
- The current market share of the technology in the U.S. and globally
- Key issues for the future growth of each renewable resource

Solar Power

- What solar power is
- Types of solar power: Photovoltaic (PV) and Concentrated solar (CSP)
- How solar power works
- PV modules, panels, and arrays
- PV with storage
- Interconnection
- How CSP works
- CSP technologies
- CSP with storage
- Hybrid systems
- Key attributes: technology maturity, costs, grid integration, environmental concerns
- Growth in solar power
- Market share
- Resource potential
- The future of solar power

Geothermal Power

- What geothermal power is
- Heat sources
- Generation technologies
- Types of geothermal power
- How geothermal power works

COURSE AGENDA

Wind Power

- What wind power is
- Types of wind power: Onshore and Offshore
- How wind power works

* Please contact us for bulk discounts and site license pricing





- Dry steam, flash steam, binary steam, and flash/binary hybrid
- Interconnection
- Key attributes: technology maturity, costs, grid integration, environmental concerns
- Growth in geothermal power
- Market share
- Resource potential
- The future of geothermal power

Biopower

- What biopower is
- Types of biopower technologies
- Types of biomass
- Conversion processes
- Generation technologies
- How biopower works
- Steam turbines, gas turbines, internal combustion engines, gas microturbines, and fuel cells
- Interconnection
- Key attributes: technology maturity, costs, grid integration, environmental concerns
- Growth in biopower
- Market share
- Resource potential
- The future of biopower

Hydropower

- What hydropower is
- Types of hydropower technologies
- How hydropower works
- Diversion, impoundment, pumped storage, and tidal
- Plant head
- Turbine types
- Hydropower interconnection
- Types of hydrokinetic power

- How hydrokinetic power works
- How WEC power works
- How CEC power works
- Hydrokinetic technologies
- Hydrokinetic interconnection
- Key attributes: technology maturity, costs, grid integration, environmental concerns
- Growth in hydropower
- Market share
- Resource potential
- The future of hydropower

