

Renewable Energy & Energy Efficiency Resources, Tools, and Information

March 2018

Renewable Energy Web Resources

- Incentives and Rules Database of State Incentives for Renewables & Efficiency http://www.dsireusa.org/
- PVWatts photovoltaic energy production calculator http://pvwatts.nrel.gov/
- FEMP Renewable Energy Projects and Technologies: http://www.energy.gov/eere/femp/federal-renewable- energy-projects-and-technologies
- **FEMP Training:** https://www4.eere.energy.gov/femp/training/
- **Levelized Cost of Energy Calculator:** https://www.nrel.gov/analysis/tech-lcoe.html
- Distributed Generation Renewable Energy Estimate of Costs: https://www.nrel.gov/analysis/tech-lcoe-recost-est.html
- GIS Tools and Data: http://maps.nrel.gov/femp
- **REopt: Renewable Energy Integration & Optimization:** https://reopt.nrel.gov/
- **On-Site PV Tech Spec:** https://energy.gov/eere/femp/downloads/procurement-specifications-templates-sitesolar-photovoltaic-use-developing
- **Solar RFP Template**: https://energy.gov/indianenergy/downloads/doe-office-indian-energy-solar-rfptemplate-draft

FEMP Training: Renewable Energy

Available Trainings

- Combined Heat and Power: An Integrated Approach to Energy Resources
- Distributed-Scale Renewable Energy Projects: From Planning to Project Closeout
- Federal On-Site Renewable Power Purchase Agreements
- FEMP Large-Scale Renewable Energy Guide
- Introduction to Alternative Financing for Energy Efficiency and Renewable Technologies
- O&M Best Practices for Small-Scale PV Systems
- Procuring Solar Energy for Federal Facilities: Practical Guidance
- Renewable Energy (First Thursday Seminar)
- Renewable Energy Technology Applications: Biomass Technologies
- Renewable Energy Technology Applications: Geothermal Energy Technologies
- Renewable Energy Technology Applications: Hydropower and Ocean Technologies

Please visit the FEMP Training Website:

https://www4.eere.energy.gov/femp/training/

Trainings are certified for Continuing Education Credits by:

- Renewable Energy Technology Applications: Integration of Renewable Energy Systems
- Renewable Energy Technology Applications: Photovoltaics and Daylighting Technology
- Renewable Energy Technology Applications: Solar Thermal and Concentrating Solar Power Technology
- Renewable Energy Technology Applications: Wind Energy Technology
- Renewable Power Purchases and Renewable Energy Certificates
- Selecting, Implementing, and Funding Photovoltaic Systems in Federal Facilities
- Strategic Planning for Renewable Energy Deployment: REopt (First Thursday Update)
- Utility Green Tariff Programs (First Thursday Update)
- Operations and Maintenance for Optimal Photovoltaic System Performance

Residential Energy Efficiency Online Resources

General Efficiency

U.S. Department of Energy Residential Program Solution Center

https://rpsc.energy.gov/tools-and-calculators

Energy Star Guide to Energy-Efficient Heating and Cooling

https://www.energystar.gov/ia/partners/publications/pubdocs/HeatingCoolingGuide%20FINAL 9-4-09.pdf

American Council for an Energy-Efficient Economy

https://aceee.org/sector/residential

Lighting

U.S. Department of Energy LED Lighting

https://www.energy.gov/energysaver/save-electricity-and-fuel/lighting-choices-save-you-money/led-lighting

Energy Star Choose a Light Guide

https://www.energystar.gov/products/choose a light

Appliances & Equipment

Energy Star Products

https://www.energystar.gov/products/

U.S. Department of Energy Estimating Appliance Energy Use

https://www.energy.gov/energysaver/estimating-appliance-and-home-electronic-energy-use

Building Envelope

U.S. Department of Energy Better Buildings

https://betterbuildingsinitiative.energy.gov/alliance/technology-solution/building-envelope

Residential Heat Pump Online Resources

- Air-Source Heat Pumps
 - U.S. Department of Energy

https://www.energy.gov/energysaver/heat-pump-systems/air-source-heat-pumps
https://www.energy.gov/eere/femp/purchasing-energy-efficient-residential-air-source-heat-pumps

- Energy Star Air-Source Heat Pumps
 https://www.energystar.gov/products/heating cooling/heat pumps air source
- Ground-Source Heat Pumps (a.k.a., Geothermal Heat Pumps)
 - U.S. Department of Energy

https://www.energy.gov/energysaver/heat-and-cool/heat-pump-systems/geothermal-heat-pumps https://www.energy.gov/sites/prod/files/guide_to_geothermal_heat_pumps.pdf

Thank you

www.nrel.gov

