

Energy Reductions & Payback (2 hrs)

for SW Ohio, Northern KY & SE Indiana

by John F Robbins CEM / CSDP

2.0 continuing education hours for engineers, contractors, designers and energy professionals

Course Description

Home and building engineers, designers, contractors, consultants and business managers often need to advise their companies and customers about energy investment “paybacks” or how to order energy recommendations according to how long it takes to recover initial costs from investments which reduce conventional energy use or demand. This requires ability to accurately estimate changes in energy use and/or demand, then to accurately estimate avoided conventional energy cost.

Energy Reductions & Payback presents many common examples, first showing how to estimate common avoided examples of conventional energy use and demand, then how to estimate the related savings. Savings from energy-reductions strategies are compared between a few common energies. Coverage includes:

- Installing higher R-values in walls and ceilings
- Replacing windows
- Reducing air leakage or changing outside air intake
- Installing more efficient HVAC
- Switching heating energy, as from LP to natural gas or electric heatpump
- Using a heat exchangers for outside air intake during winter
- Lowering watts of lighting & electronic devices
- Using more efficient appliances
- Reducing stand-by & phantom electric loads
- Installing solar water heating
- Installing solar electricity
- Considering whole-house or whole-building low-energy use and demand goals

This course teaches students

- how to estimate reductions in conventional energy use
- how to use current and correct energy prices in savings estimates
- how similar reductions in energy use or demand can produce very different savings and paybacks depending on which energy from which supplier is being reduced

JOHN F ROBBINS CEM / CSDP

3519 Moffett Road, Morning View, KY 41063-8748

(859) 363-0376

john@johnfrobbins.com

www.johnfrobbins.com