

RESNET

Environmental Energy Efficiency



What is Energy Efficiency Trading?

Today, credits for energy efficiency are being traded like a commodity in various environmental and utility markets. Through the introduction of cap and trade systems, energy efficiency certificates, and utility capacity trading, credit for energy efficiency is being monetized into a tradable unit. As programs such as cap and trade and energy efficiency certificates expand from state and regional programs into national and international programs, the need for raters to measure and certify compliance to the emission or efficiency targets will dramatically increase.

Market Opportunities

Environmental and energy efficiency trading is rapidly expanding in the United States. *The Los Angeles Times* projected that trading carbon dioxide emission credits alone could become a \$40 billion market in United States by the end of the next decade. As the market expands, the need for skilled professionals such as raters/providers will increase dramatically.

Opportunities for Raters

- Raters will be needed to calculate and verify environmental savings from a building's improvements so that value can be traded in emissions markets.
- Certified raters will be needed in the capacity markets that will pay for reductions in peak energy use
- The potential for energy efficiency to create certificates that can be included in Energy Efficiency Portfolio Standards (Compliance Markets) or voluntary clean power markets (White Tags)
- Creation of a new revenue source for building owners to finance the energy performance of their homes and offices and for third parties to aggregate and sell the value of savings
- New service raters can offer to their builder clients
- By applying the existing RESNET standards for energy efficiency to energy efficiency trading, raters and builders would avoid the hassle of learning a new set of standards

*Setting the STANDARD
for QUALITY*

Methods of Efficiency Trading

Cap and Trade

A cap and trade system sets a limit on the amount of carbon dioxide (or other greenhouse gases) that can be emitted. Individual companies are then required to reduce their company's emissions to the new limit. Those companies that reduce their emissions below their limit are given credits which they can sell to companies that still have not sufficiently reduced their emissions. *In other words, companies are given the option of either reducing their own emissions or purchasing credits from companies who are below the limit.*

Environmental Trading

Environmental trading seeks to reduce pollution emissions through a market-based solution. Companies and utilities are tasked with either reducing their own emissions or buying credits from companies that have reduced their emissions below the required level. Markets have already been created to reduce the emissions of sulfur oxides (Sox), nitrogen oxide (NOx), and mercury. The cap and trade of carbon dioxide (CO2) is expected follow in the near future.

Energy Efficiency Certificates (EEC)

States and the federal government are exploring establishing mandatory energy efficiency portfolio standards that require regulated utilities to meet a certain percentage of their projected power needs through energy efficiency. Under these regulations a utility has an option of reducing consumer energy usage or buying energy efficiency certificates from a third party as an offset.

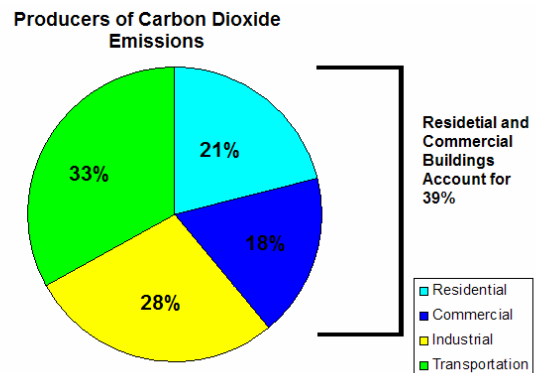
Forward Capacity Trading

Today, the United States' utility grid is being strained by the increasing demand for electricity and the lack of capacity to meet the growing demand. One cost-effective way to ensure that the power can meet the demand

for electrical services is to create forward utility capacity trading programs. Forward capacity trading allows companies to enter the capacity market and sell energy savings on an equal playing field as those who wish to build new power plants.

Why Focus on Residential Efficiency?

Traditionally, regulators and utilities look to construct new power plants in meeting the increased demand for power. There is now a new realization that energy efficiency is a cost-effective option to meet the demand for electrical services. Energy use from residential buildings accounts for 36.5% of electricity consumed in the U.S. and 21% of carbon emissions. High performance buildings can play a significant role in meeting utility energy efficiency targets.



Source: U.S. Energy Information Agency

How RESNET fits into Energy Efficiency Trading

Energy efficiency trading offers a new market for raters, but will not require them to learn a new skill or set of standards. By applying the existing RESNET standards to energy trading, America can save energy without causing major disruption to business. The modeling and inspection procedures developed by RESNET can be used to document energy savings for energy efficiency trading. There is no need for additional inspections nor software modeling.