

White Tags®
energy efficiency
certificates



**STERLING
PLANET**

1 877 457 2306

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White Tags®

Energy Efficiency Certificates

*An Innovative Way to Promote Energy Conservation,
Manage Demand for Electricity and Mitigate Carbon Dioxide*

5th National Conference on Energy Efficiency

Chicago, Illinois

September 29, 2009

Alden Hathaway

SVP Business Development

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Company Profile

Our Mission

Inspired by what the world can be, Sterling Planet is improving lives today while working to sustain Earth for future generations.

An Introduction

- White Tags® innovator and market maker
- First nationwide retail REC provider (since 2000)
 - U.S. DOE Renewable Energy Marketer of the Year, 2007 and 2008
 - Cumulative sales exceed 32.5 billion kWh
- Supplier of verified carbon offsets from projects worldwide
- Developer of renewable energy, energy efficiency and carbon projects, with more than \$964 million in pipeline
- Partner to 120 utilities

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Sample Clients

120 utilities nationwide, including:



Thirteen of the nation's top renewable energy purchasers are customers, including #1 and #2:



61 colleges and universities nationwide:



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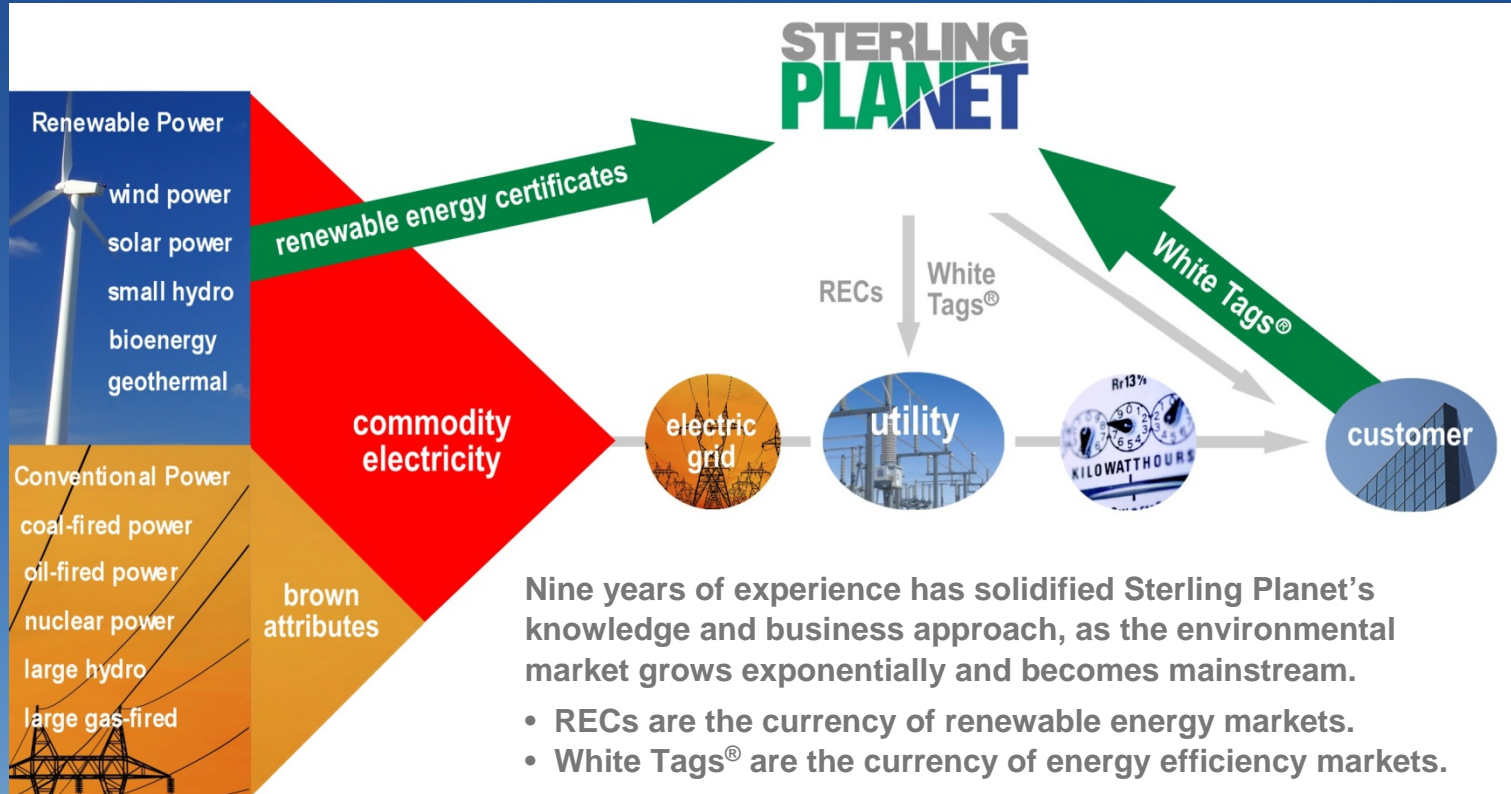
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Energy Certificates - Business Model



Nine years of experience has solidified Sterling Planet's knowledge and business approach, as the environmental market grows exponentially and becomes mainstream.

- RECs are the currency of renewable energy markets.
- White Tags® are the currency of energy efficiency markets.

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What are White Tags®?

- A new tradable attribute similar to renewable energy certificates
- Also known as energy efficiency certificates and white certificates
- Represents the value of energy not used or conserved
- Each MWh conserved = 1 White Tag®
- Created through energy conservation or demand-side management
- Can be recorded in real-time for demand response
- Benefits go beyond efficiency to creation of new revenue stream



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Definition



ERT-Winrock
Uniform National Standard for
EcoPower® Electricity Savings
Certificates



A transferable commodity, sold separately from electricity (ie., unbundled) or equipment, but representing the unique and exclusive proof of the avoided use of one megawatt hour (MWH) of electricity which would otherwise have been used, due to the implementation of an electricity saving measure or measures consistent with the requirements of this standard.

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White Tags[®] and RECs Comparison

Supply Side

Demand Side



**1 REC = 1 MWh
of renewable energy**



**1 White Tag[®] = 1 MWh
of energy savings**

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Cost Comparison

Utility Efficiency Programs



*assumes 30% never used, break or burn out early

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Discussion Topics



White Tags®, an innovative way to:

- Promote energy conservation
- Manage demand for electricity
- Mitigate carbon dioxide emissions

Also:

- Status of White Tags® market
- Innovative White Tags® services

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less is more

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White Tags[®] Creation

Projects to increase energy efficiency can create White Tags[®]. This means new revenue – and an opportunity to reinvest and achieve even greater energy efficiency.

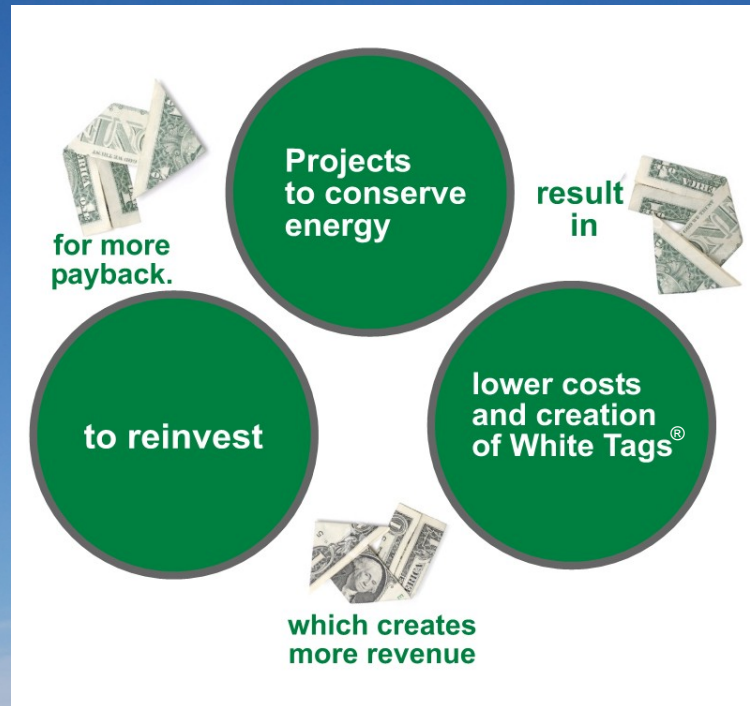


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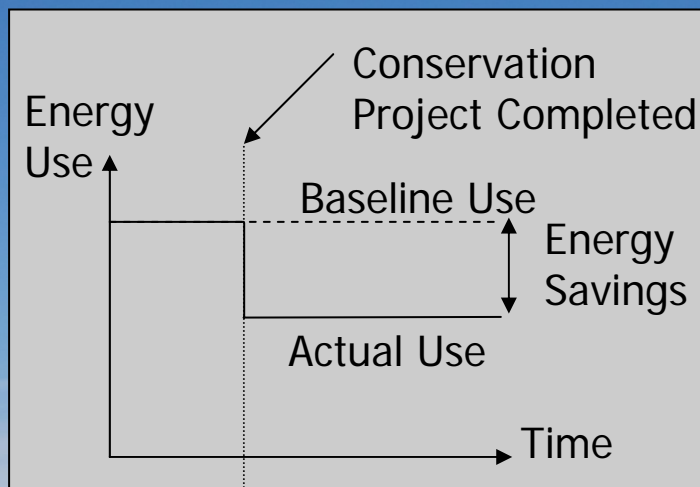
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Energy Efficiency Projects

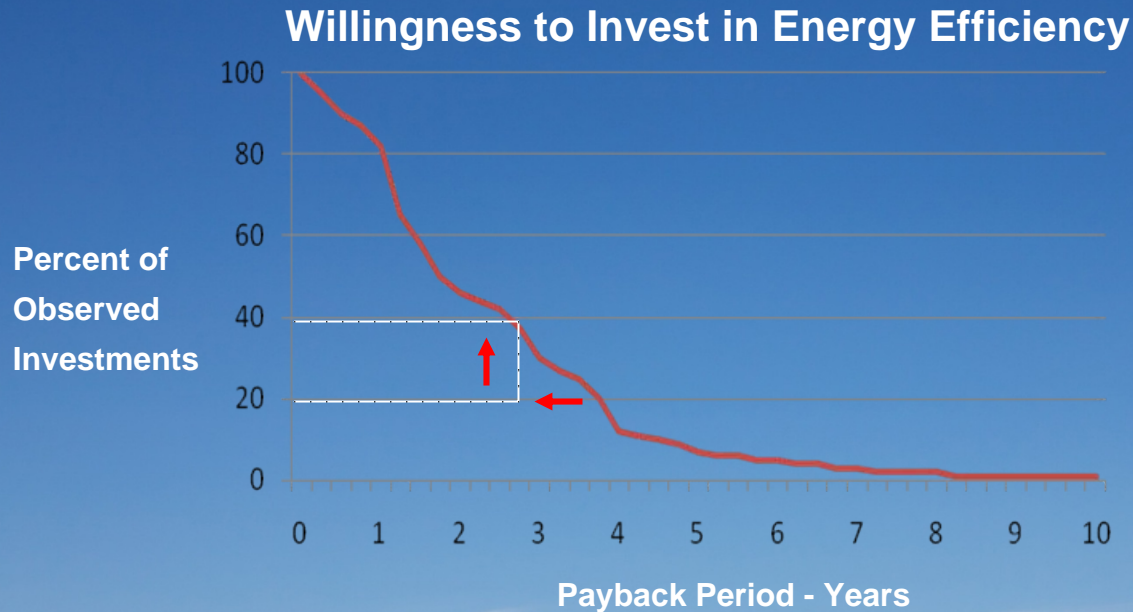
Some project examples:

- Equipment upgrades, retrofits and component replacements
- Operational modifications and set-point changes
- Energy management and monitoring systems
- Combined heat and power (CHP) or cogeneration
- New technologies (such as high-efficiency lighting)



Motivation to Conserve

The shorter the payback period, the greater the motivation to conserve energy. White Tags® accelerate payback, boosting motivation to conserve.



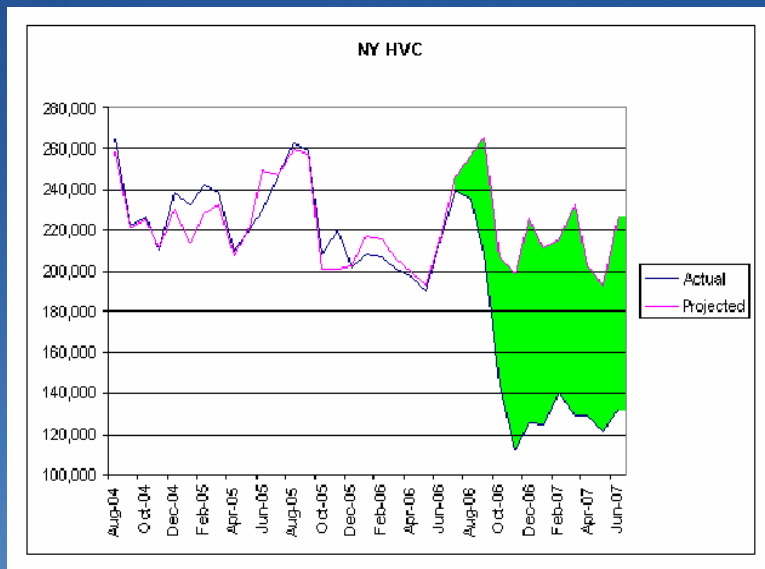
*Power by Design, 1989
John Rowe – NEES and Douglas Foy - CLF*

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Case in Point



Automotive Company

**Implementation Period:
227,130 kWh Conserved**

**Post-Project Period:
605,976 kWh Conserved**

**Total Savings:
833,106 kWh (833 White Tags®)**

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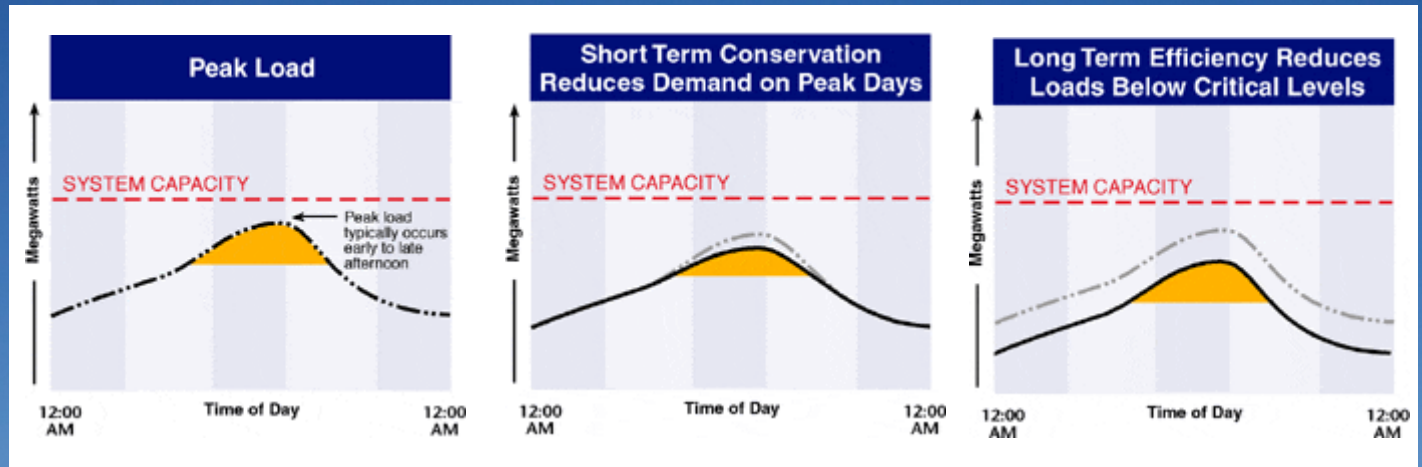


Three Kinds of White Tags®

- 1) Standard (non Peak) White Tags® : Off-Peak or non-time-specific White Tags®
- 2) Peak Demand Response White Tags® : Time-stamped White Tags® for 4 or 5 hour daily peak demand period.
- 3) Super Peak White Tags® : Time-stamped White Tags® for single peak hour from utilities critical peak and relative peaks.

Demand-Side Management

Long-term investments in energy efficiency reduce overall electricity demand below critical levels. Short-term conservation measures or emergency cutbacks reduce peak load at specific times only.



White Tags® encourage long-term investments in energy efficiency.



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less is more

A photograph of a green hill under a blue sky with white clouds. The text "less is more" is overlaid in a green, bold, sans-serif font with a white outline and a slight shadow effect.

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White Tags[®] and Carbon

Energy efficiency is effective in reducing greenhouse gas emissions. White Tags[®] may also be used as carbon offsets if the energy savings represented are permanent, not a temporary DSM strategy.



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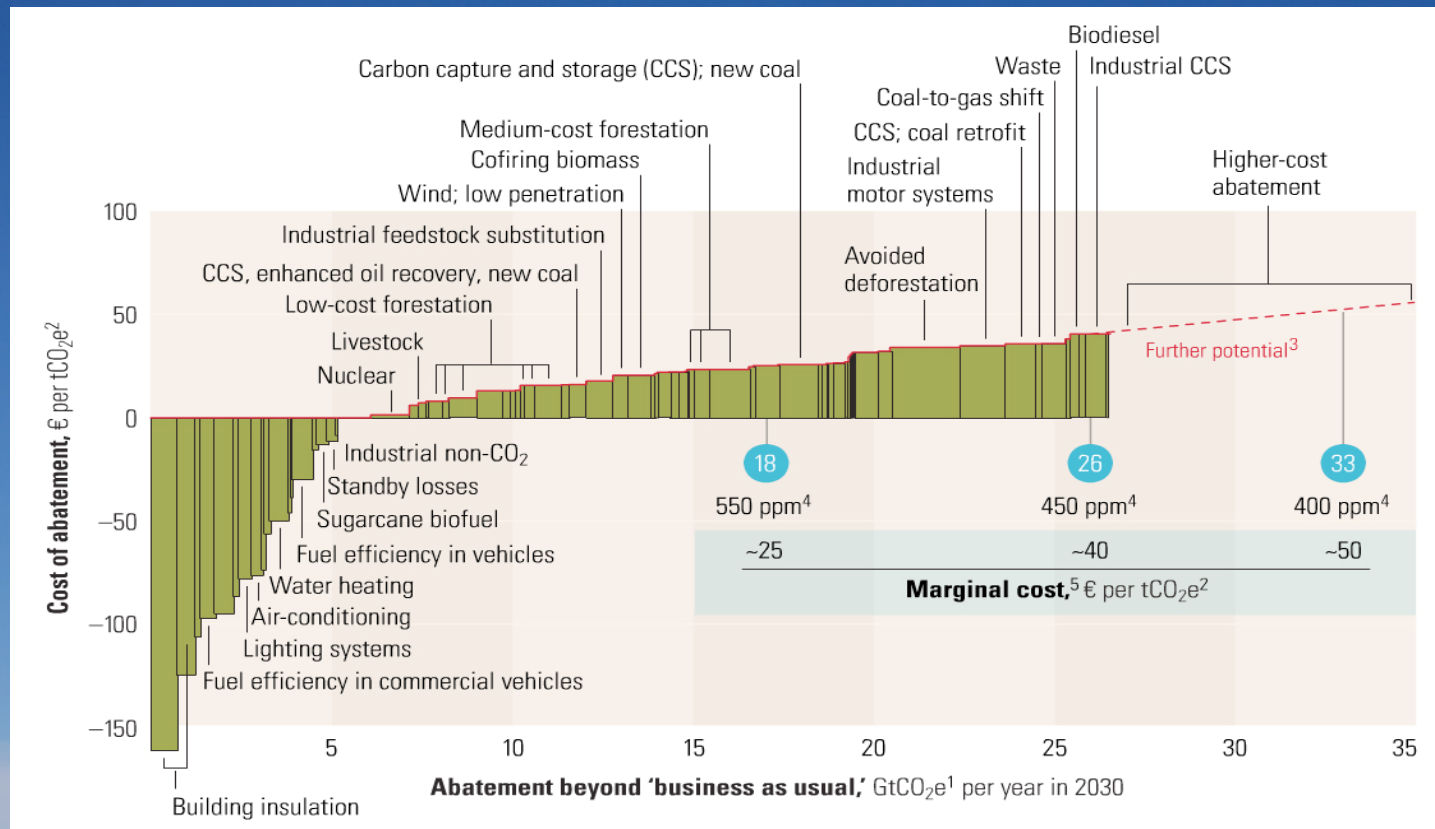
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Efficiency, a Low-Cost Option

For greenhouse gas abatement, measures that improve energy efficiency are the least costly.



Source: "A Cost Curve for Greenhouse Gas Reduction". The McKinsey Quarterly. 2007.

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Operational Boundaries

RECs, White Tags® and Carbon Offsets



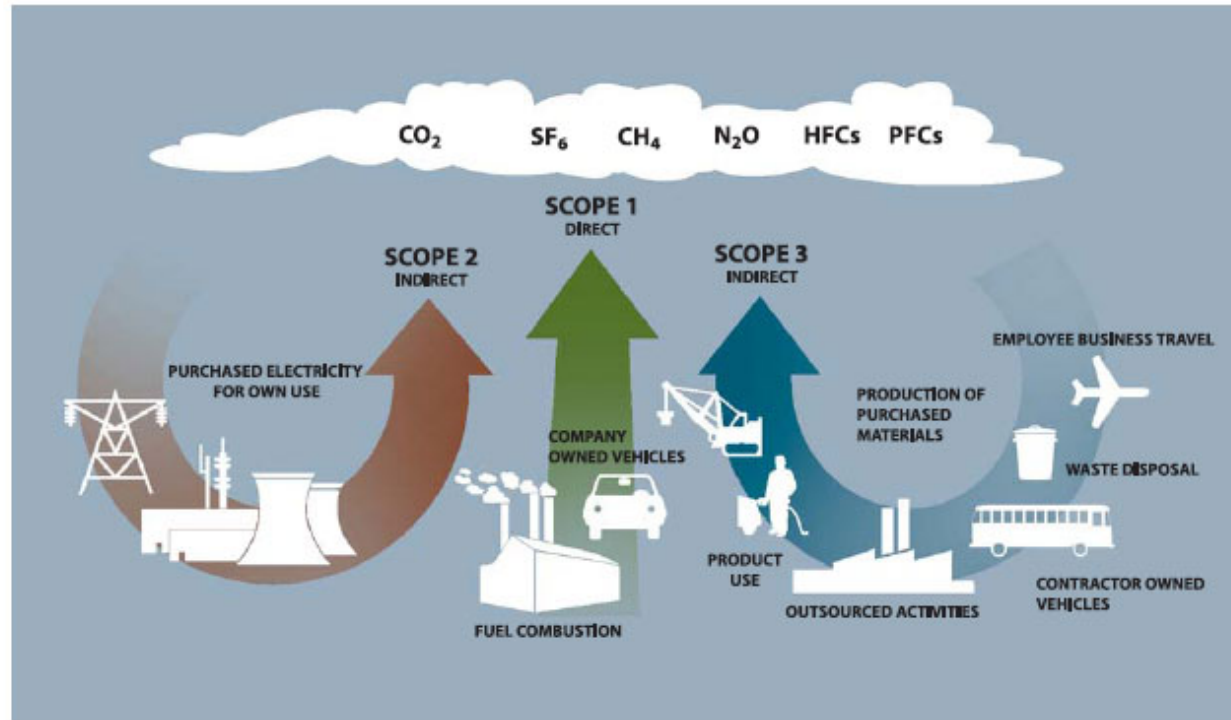
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FIGURE 5 | OPERATIONAL BOUNDARIES



Source: New Zealand Business Council for Sustainable Development.

WRI Greenhouse Gas Protocol

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Energy Efficiency Compliance

- 22 states with energy efficiency standards
- Likely in all RPS states
- Each state defining own White Tag® standard
- Pending federal legislation
- National RPS (Up to 50% of RPS using energy efficiency)
- Europe considering a 20% energy efficiency standard

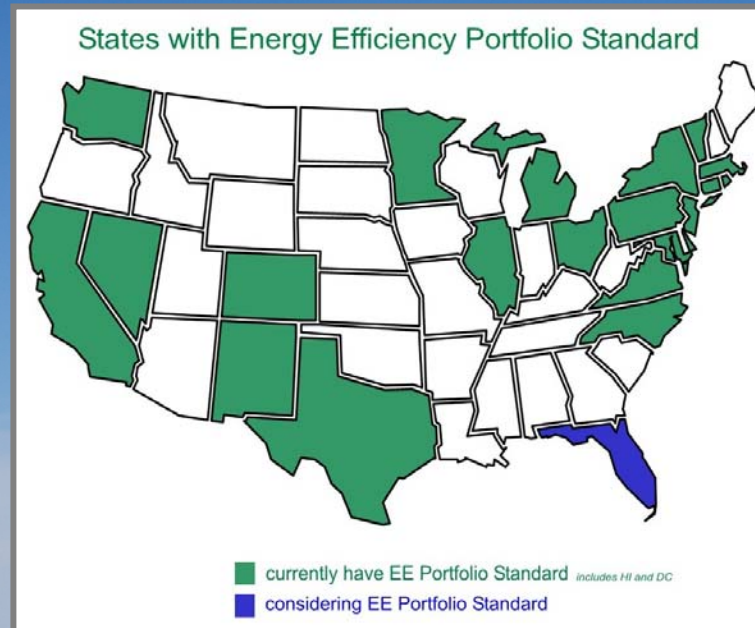


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Standards

Mandatory

States are developing their own EE measurement criteria and standards for compliance inside their borders.

The federal government is also developing standards for a pending national EE mandate.

Voluntary

Both the Center for Resource Solutions and the Environmental Resources Trust are currently considering national standards for White Tags®.

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less is more

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White Tags® Services



Sterling Planet teams with clients to:

- Create White Tags®
- Measure and verify using advanced White Tag Pro® software
- Maintain continued White Tags® creation
- Monetize White Tags®, with aggregation and set relationships
- “Bank” energy-efficiency savings applied to GHG reduction goals
- Provide public policy and regulatory services

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Baseline Energy Use Model

White Tag Pro® Illustration



- Neural Network
- Online System
- Large Portfolio
- Baseline
- M&V
- Scenarios
- Track
 - Energy Use
 - White Tags®
 - CO₂ (GHG)
 - NO_x & SO₂
- Database (I/O)
 - Building
 - Billing
 - Weather



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