



Energy

INTRODUCTION TO GREEN-E ENERGY

2011 Webinar Series

August 25, 2011

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Outline

1. Welcome/About Us
2. Renewable Energy Basics
3. Green-e Energy and Consumer Protection
4. How to Get Started
5. Q&A/Wrap Up



CRS

center for
resource
solutions

About Center for Resource Solutions

A nonprofit creating policy and market solutions to advance sustainable energy since 1997.



About Green-e Energy

The nation's leading voluntary certification program for renewable energy.

Outline

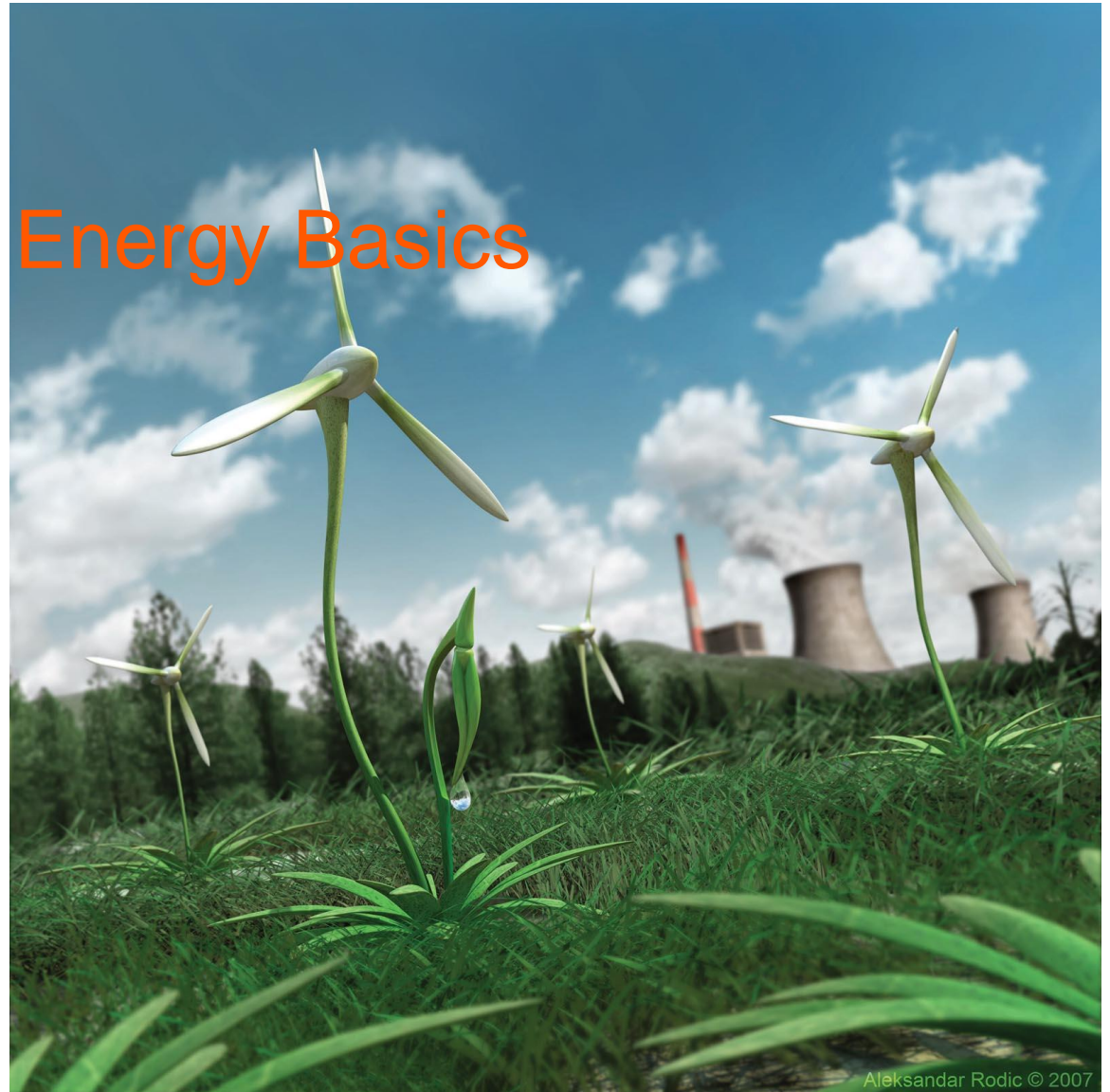
1. Welcome/About Us
2. Renewable Energy Basics
3. Green-e Energy and Consumer Protection
4. How to Get Started
5. Q&A/Wrap Up

Renewable Energy Basics

- What does renewable even mean, anyway?

Renewable Energy Basics

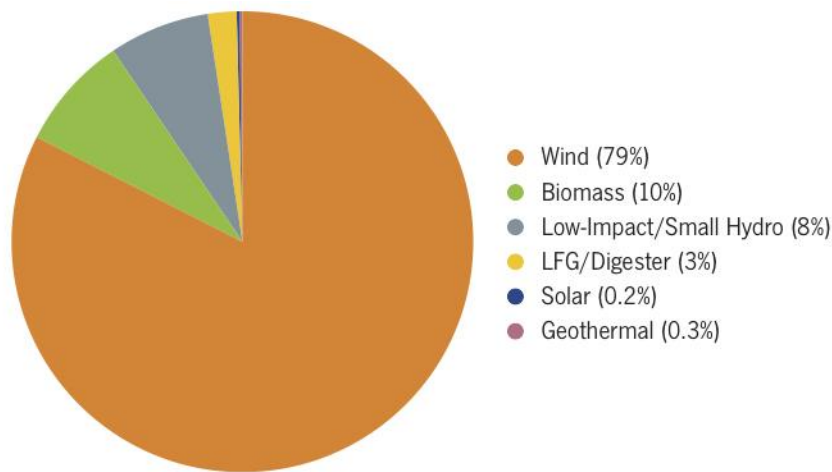
- **Resource Types:**
Biomass,
Geothermal,
Hydro,
Solar,
Wind.



Aleksandar Rodic © 2007

Renewable Energy Basics:

Resource Types

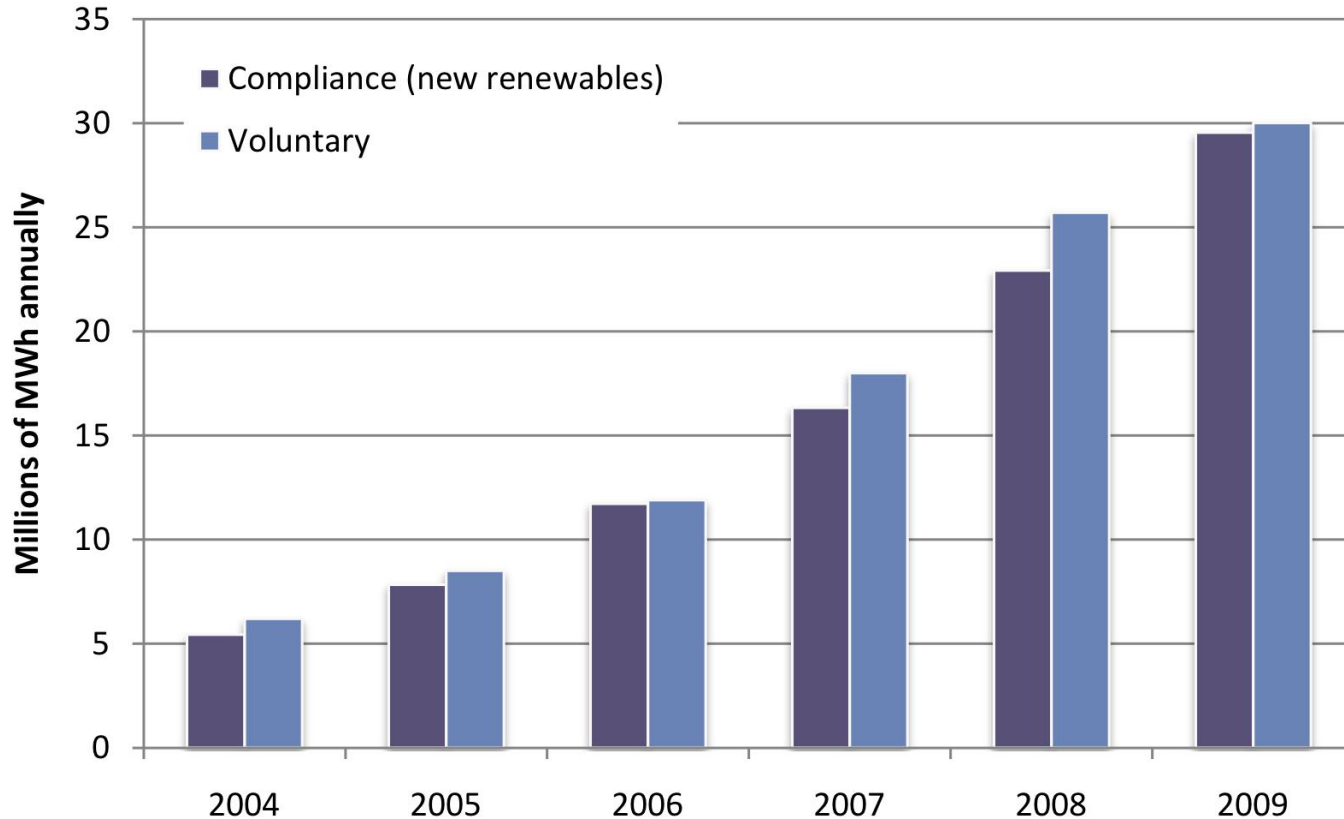


Resource Types in Green-e Energy. Contributions of Renewable Resource Types to Total Green-e Energy Certified Retail Sales, 2009.

Renewable Energy Basics

- What does renewable even mean, anyway?
- Resource Types. Biomass, Geothermal, Hydro, Solar, Wind
- **Two Markets.** Compliance vs. Voluntary

Renewable Energy Basics: Two Markets



Renewable Energy Basics: Two Markets. Comparison of compliance and voluntary markets for renewable energy, 2004–2009. *Courtesy Green Power Marketing in the United States*

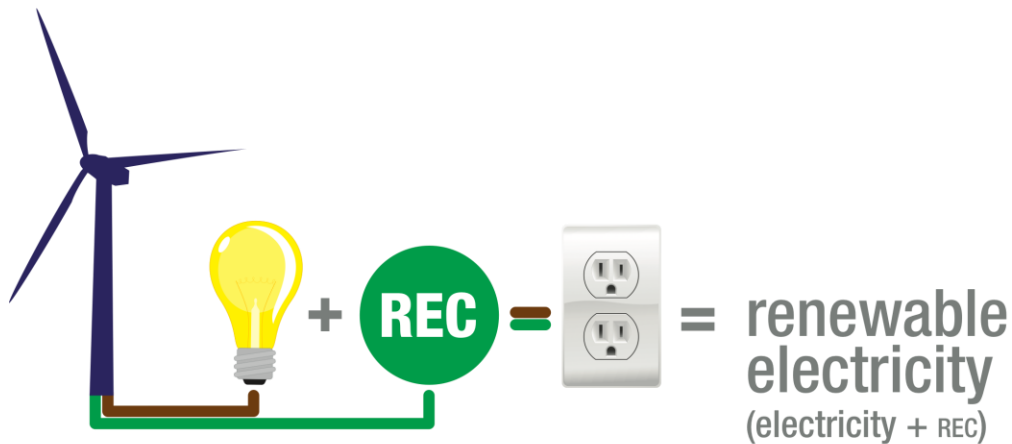
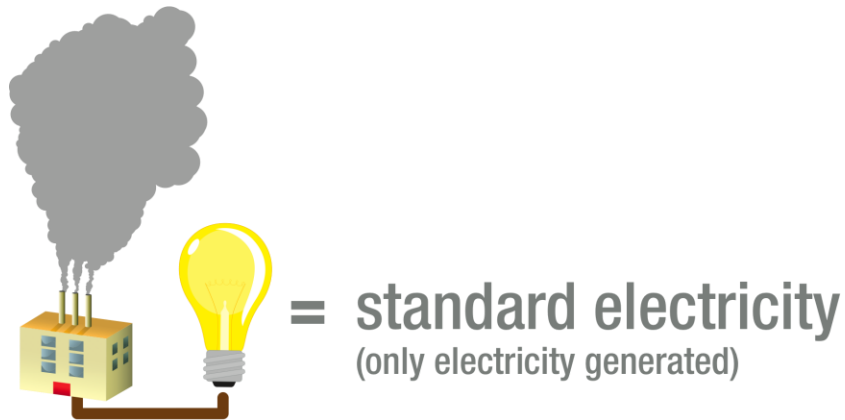
Renewable Energy Basics

- What does renewable even mean, anyway?
- Resource Types. Biomass, Geothermal, Hydro, Solar, Wind
- Two Markets. Compliance vs. Voluntary
- Renewable Energy Product Types.** Competitive electricity, green power pricing programs, renewable energy certificates

Renewable Energy Basics

- Respect the REC.
Renewable energy certificates explained





Renewable Energy Basics: Respect the REC. Fossil fuel generation produces commodity electricity. Renewable generation also produces electricity, but for every megawatt-hour of electricity generated, a Renewable Energy Certificate (REC) is also produced. This REC embodies the additional environmental benefit of renewable energy—little or no pollution.

Renewable Energy Basics

- What does renewable even mean, anyway?
- Resource Types. Biomass, Geothermal, Hydro, Solar, Wind
- Two Markets. Compliance vs. Voluntary
- Renewable Energy Product Types. Competitive electricity, green power pricing programs, renewable energy certificates
- Respect the REC. Renewable energy certificates explained
- Stake your claim.** He who ownseth the REC makeseth the claim

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Green-e Energy and Consumer Protection

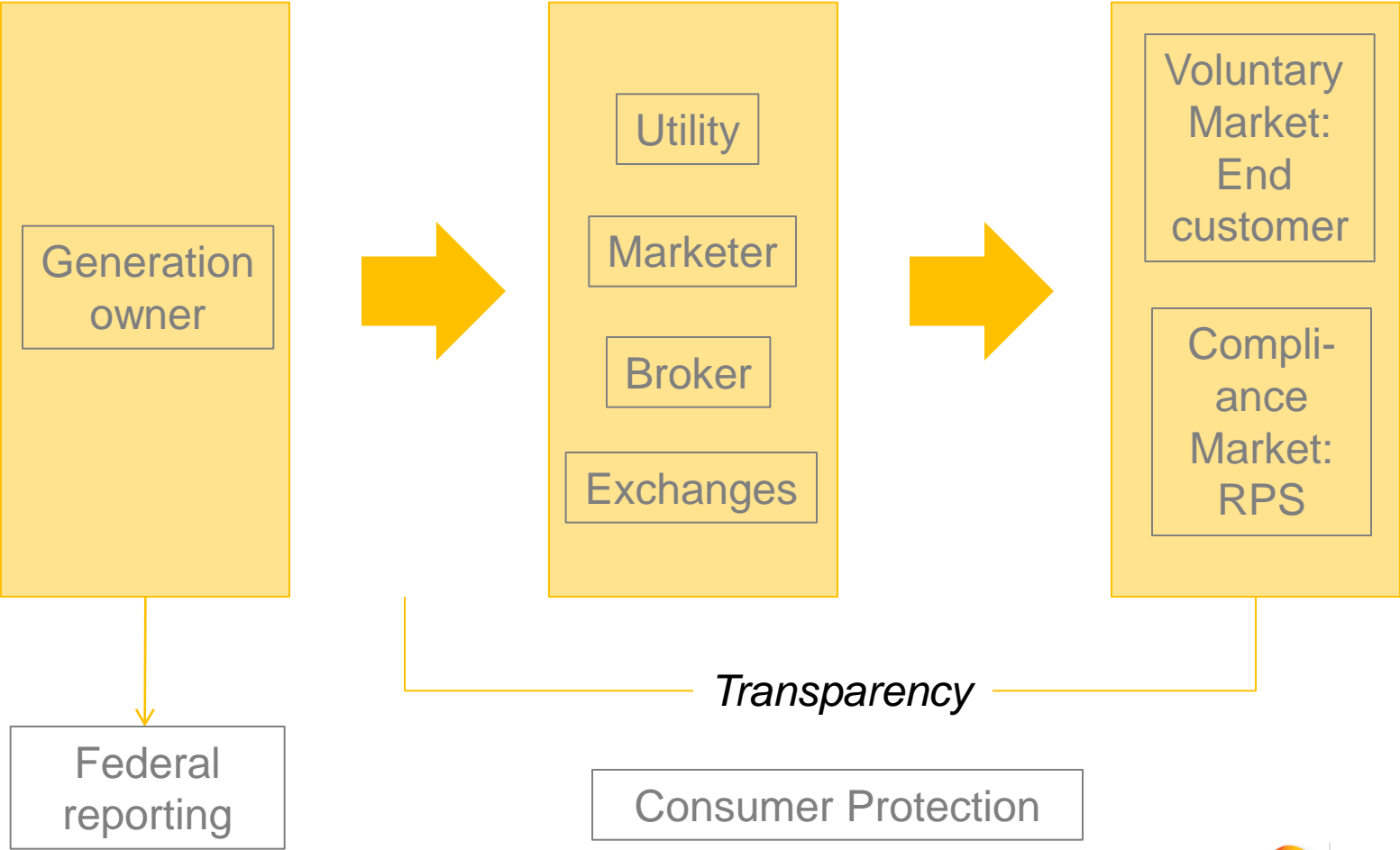
- The Reason for Green-e. Creating confidence in clean energy purchases

Renewable Market Stakeholders & Elements

Supply

Distribution

Demand



Green-e Energy and Consumer Protection

- The Reason for Green-e. Creating confidence in clean energy purchases
- Best Practices in Standard Setting.** Independent Governance Board, Stakeholder-driven standards and policies. Code of Conduct

Green-e Energy
National Standard Version 2.1

National Standard

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Green-e Energy

Code of Conduct

Appendix B:
Green-e Energy
Code of Conduct and Customer Disclosure Requirements

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Green-e Energy Code of Conduct and Customer Disclosure Requirements
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PRODUCT CONTENT LABEL

GREEN CHOICE (Block and Percent-of-Use options only)

Green Choice is sold in 100 kWh blocks or it can match 10% (non-residential only), 35%, 50%, or 100% of your estimated electricity usage. Both options are made up of the resources below.

Green-e Energy Certified New Renewables in Green Choice	Generation Location
Biomass	18% National
Geothermal	12% National
Landfill/Biogas	1% National
Solar	1% National
Wind	68% National
TOTAL	100% National

For comparison, the current average mix of resources supplying Arizona Public Service Company includes: Coal (40%), Nuclear (26%), Gas/Oil (19%), Renewable (2%), and Purchased Power (13%).

1. These figures reflect the power that we have contracted to provide. Actual figures may vary according to resource availability.

2. APS renewable resources first began commercial operation on or after 1/1/87.

For specific information about this electricity product, contact the Arizona Public Service Co. Green Team at (602) 216-0318 or visit www.aps.com.

The Green-e Energy Program certifies that Green Choice meets the minimum environmental and consumer protection standards established by the non-profit Center for Resource Solutions. For more information on Green-e Energy certification requirements, call 1-888-63-GREEN or visit www.green-e.org.

Green-e Energy and Consumer Protection

- The Reason for Green-e. Creating confidence in clean energy purchases
- Best Practices in Standard Setting. Independent Governance Board, Stakeholder-driven standards and policies. Code of Conduct
- Claims Explained. Double counting, claims

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- Claims Explained. Double counting, claims
- Annual Verification Process. Annual verification of sales and claims, Marketing Compliance Review

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- Other Standards Require Green-e.

Certified



Corporation™

bcorporation.net



Other Standards Require Green-e. B Corporation, Cradle to Cradle, U.S. Green Building Council's LEED standard.

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- Other Standards Require Green-e.
- High Logo Recognition. 21% logo recognition, among the highest

	All		All
 (Recyclable)	89%	 (Rainforest Alliance Certified)	17%
 (Energy Star)	87%	 (Certified Humane Raised and Handled)	14%
 (USDA Organic)	62%	 (LEED or Green Building Certified)	12%
 (Smart Choice)	45%	 (Cruelty Free/Leaping Bunny Certified)	11%
 (Green-e)	21%	 (Marine Stewardship Council Certified)	11%
 (Whole Trade Guarantee)	19%	 (Forest Stewardship Council Certified)	6%
 (Fair Trade Certified)	18%		

© 2009 BBMG Conscious Consumer Report

High Logo Recognition. Green-e has one of the highest levels of recognition among third-party certifications, and the highest among non-governmental labels (Smart Choice is no longer).



Promoting Green Power Purchases

Green-e Energy and Consumer Protection

- The Reason for Green-e.

Creating confidence in clean energy purchases

- Best Practices in Standard Setting.** Independent Governance Board, Stakeholder-driven standards and policies. Code of Conduct

- Claims Explained.** Double counting, claims

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- Other Standards Require Green-e**

- High Logo Recognition.** 21% logo recognition, among the highest

- At a Utility Close to You.** 6 of the top 10 utility programs are Certified

1.	Austin Energy	764 GWh in sales
2.	Portland General Electric	740 GWh
3.	PacifiCorp	578 GWh
4.	Sacramento Muni Utility Dist.	377 GWh
5.	Xcel Energy	326 GWh
6.	Puget Sound Energy	303 GWh
7.	Connecticut Power & Light	197 GWh
8.	National Grid	174 GWh
9.	Public Service New Mexico	173 GWh
10.	We Energies	173 GWh

At a Utility Close to You. Six of the top 10 utility green-pricing programs in the country (by sales) are certified by Green-e Energy (shown in bold). *Source: US DOE 2009*

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How to Get Started

- Check out green-e.org/find. Search for Green-e Energy Certified products at “Find Green-e Certified Renewable Energy for Your Home or Organization”



Green-e

Look for the logo and reduce your impact

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[Find Green-e Certified](#)

[Green-e Programs](#)

[Learn](#)



[Find Green-e Certified](#)

[Renewable Energy for Your Home or Organization](#) | [Carbon Offsets](#) | [Organizations Using Renewable Energy](#)

Find Renewable Energy for Your Home or Organization

This search form will help you find certified renewable energy products for your home or organization. (To specify more than one item in each list hold down the Ctrl/Cmd key while clicking to specify more than one item.)

Search For:

Any
Home
Organization
Wholesale

Product Type:

Any
REC
Electricity

Available in:

Anywhere
Alabama
Alaska
Arizona
Arkansas
California
Colorado
Connecticut

Show products containing:

Any
Wind
Solar
Hydro
Geothermal
Biomass
LFG

Quick Links

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[Organizations Using Renewable Energy](#)

[Green-e Energy National Standard](#)

[Green-e Climate Standards](#)

[Verification Reports](#)

Latest News

[Green-e Energy Certifies Austin Energy's GreenChoice Program](#)
January 6, 2011

[Update to Green-e Climate Endorsed Program: Climate Action Reserve](#)
December 6, 2010

[2009 Green-e Verification Report Shows 43% Increase in](#)

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Green-e

Look for the logo and reduce your Impact

[About Green-e](#)

[Find Green-e Certified](#)

[Green-e Programs](#)

[Learn](#)

[Renewable Energy](#)
[Consumer Protection](#)
[Dictionary](#)
[Links](#)

[Why Renewable Energy?](#)
[Frequently Asked Questions](#)
[Renewable Energy Certificates 101](#)
[REC Claims and Ownership](#)
[Using Renewable Energy](#)



[Home](#) » [Learn](#)

[Consumer Protection](#) | [Dictionary](#) | [Links](#)

Learn About Renewable Energy

New to this site and to the issues behind renewable energy and its benefits in mitigating climate change? This is the place to start. The pages in this section provide information for consumers and those new to the issues that the Green-e programs strive to help address.

Renewable Energy

These pages offer increasing levels of depth on the subjects that Green-e addresses, specifically renewable electricity and how it is used to help prevent climate change.

- [Why Renewable Energy?](#) provides basic information on what renewable energy is and why it is important for you, your health, your business and the world.
- [Frequently Asked Questions](#) goes deeper into common questions about renewable energy and how the Green-e programs help consumers make informed choices.
- [Renewable Energy Certificates 101](#) gives detailed information about Renewable Energy Certificates (RECs), which are a specific way to buy and sell renewable energy. They are often a new concept for visitors to this site, and the background is helpful to having a fuller understanding of renewable energy.
- [REC Claims and Ownership](#) are at the heart of what makes the market for renewable energy work and where Green-e offers value to buyers and sellers of renewable energy. This page is designed for those with a firm grasp of renewable energy and the potential issues that arise in the voluntary renewable energy market. It also contains information on solar PV and the claims specific to RECs from such projects.

Consumer Protection

Want to know more about how and why Green-e does what it does? Read [this page](#).

For the Media

Interest in renewable energy and climate change is skyrocketing. If you are a member of the media and are looking for expert contacts and information to help provide context to your news story, [start here](#).

Dictionary

Green-e has compiled and [defined common terms](#) that you will encounter on this and other renewable energy sites.

Links

As you're starting to gather, renewable energy is an active and expanding market. Link to even more sources of information on the [Links page](#).

[Green-e Energy National Standard](#)

[Green-e Climate Standards](#)

[Verification Reports](#)

Latest News

[Green-e Energy Certifies Austin Energy's GreenChoice Program](#)
January 6, 2011

[Update to Green-e Climate Endorsed Program: Climate Action Reserve](#)
December 6, 2010

[2009 Green-e Verification Report Shows 43% Increase in Certified Renewable Energy Sales](#)
October 28, 2010

[CRS Supports the FTC's Update to the Green Guides](#)
October 6, 2010

[California Energy Commission Rejects Edison Claim To Renewable Energy Certificates](#)
July 28, 2010

[CRS Updates Green-e Energy National Standard](#)
July 15, 2010

[Green-e Climate Endorses the Climate Action](#)

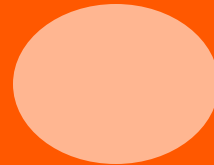
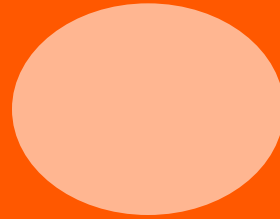
Learn, Learning, Learned. A dedicated section of the website with instructional materials, a dictionary, an FAQ, and whitepapers discussing claims and ownership for RECs.

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Upcoming Webinars

- Introduction to Green-e Climate.
<http://www.resource-solutions.org/publications.php>
- Introduction to Green-e Marketplace.
Thursday, September 15th
- Renewable Energy 101.

Learn more and register at www.green-e.org/events

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