QUAKER ECO-BULLETIN

Information and Action Addressing Public Policy for an Ecologically Sustainable World

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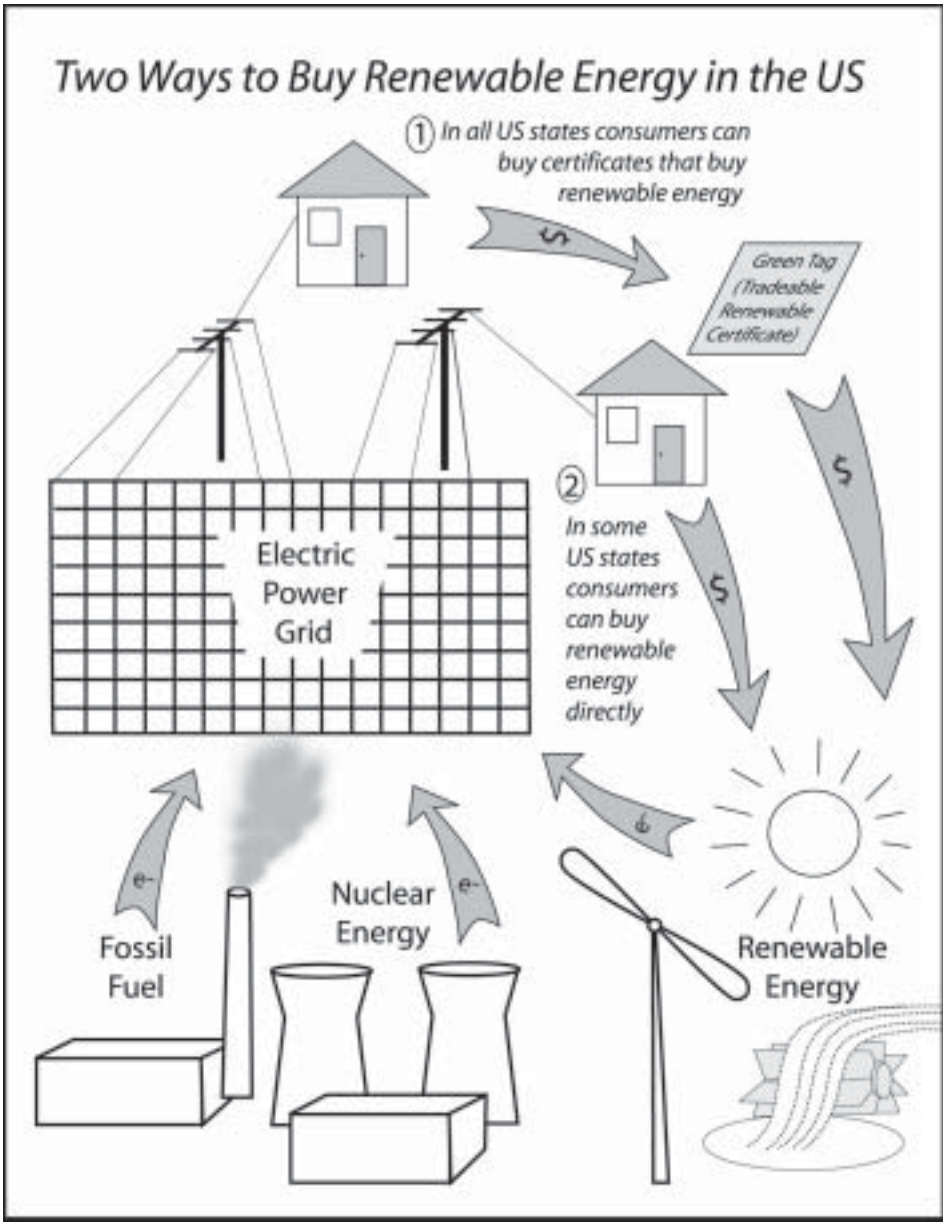
Renewable Electricity Is Something Everyone Can Buy

Ed Dreby

Have you read about new wind farms? Have you wondered if you might be able to buy electricity that comes from less damaging sources? ***Anyone in any state can now buy renewable electricity!*** *This seems to be a closely guarded secret.* ***Everyone*** *needs to know who is concerned about climate change, air pollution, dependence on fossil fuel and the other damage caused by the electric industry.*



In some states in the U.S. that have introduced electric retail competition, renewable electricity can be purchased from an independent electric supply company or an electric utility. If you do not live in one of these states **you do not need to wait** for new state legislation. For a small monthly fee, you can buy a Tradeable Renewable Certificate (TRC), which some companies call a "green tag" or "wind certificate," for a specified amount of renewable electricity. Living in an apartment building or retirement community that buys electricity for you? You can still buy a certificate for as much renewable electricity as you want.

What is renewable electricity?

Electricity generated from sunlight, wind, water (hydro-electric), heat of the earth (geo-thermal), or organic matter (bio-mass), is renewable because it comes from sources that are continually renewed by energy from the sun. Most electricity produced from renewable sources is much less polluting than from fossil fuel or nuclear facilities. Specifically, renewable electricity generation is either carbon-free, or in the case of burning biomass, carbon-neutral, because it returns carbon to the atmosphere that was recently withdrawn through photosynthesis.

Why is it important to buy renewable electricity?

Many people are aware of the contribution that "gas guzzling SUVs" make to global warming. They do not realize that the greenhouse emissions from the electric power sector are roughly comparable to the transportation sector.

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QEW-NL promotes government and corporate policies to help restore and protect Earth's biological integrity. It works within and through the Religious Society of Friends for policies that enable human communities to relate in mutually enhancing ways to the ecosystems of which they are a part. This witness seeks to be guided by the Spirit and grounded in reverence for God's creation.

QEB's purpose is to advance Friends' witness on government and corporate policy as it relates to the ecosystems that sustain us. Each issue is an article about timely legislative or corporate policy issues affecting our society's relationship to the earth.

Friends are invited to contact us about writing an article for ***QEB*****.** Submissions are subject to editing and should:

- Provide background information that reflects the complexity of the issue and is respectful toward other points of view.
- Explain why the issue is a Friends' concern.
- Describe the positions of other faith-based and secular environmental groups on the issue.
- Relate the issue to legislation or corporate policy.
- List what Friends can do.
- Provide sources for additional information.

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Hope for reducing emissions from transportation rests heavily on developing hydrogen fuel cell technology. When this is accomplished, a great deal of energy will be needed to provide hydrogen fuel. If this energy does not come from renewable sources we will be no better off, indeed we will be worse off, because of the additional energy required to manufacture hydrogen.

Shifting to renewable technologies will require substantial investments in new generating facilities. Investors need to know there is a consumer market for renewable electricity. Politicians need to know renewable energy has a constituency. Renewable electricity will not become fully integrated into the electric industry until public policy requires it. In the meantime, every little bit helps! For less than the cost of a pizza a month, you can know that at least some of the electricity supplied to the grid comes from renewable sources. **Every purchase of renewable electricity adds an incentive for companies to invest and more evidence of support for new energy policies**.

What are Tradeable Renewable Certificates?

TRCs are sold by power marketers, companies whose business is to arrange for the sale of power from generating facilities to electric supply companies and utilities. A TRC is a contract with a marketer to sell a specified amount of electricity from renewable sources into the power grid each month through the wholesale market. The monthly fee you pay for the TRC represents the difference in cost between renewable and conventional generation. You continue to pay your supplier or utility for what you use at the current retail price for fossil fuel and nuclear-generated electricity. The amount of renewable electricity that your TRC buys goes into the grid, regardless of how much you actually use.

In states offering retail choice, if you buy renewable electricity as a product, your electric supply company pays for delivery of electricity into the grid based on the amount you use, and you pay the supply company the retail price of renewable electricity. Your supply company buys renewable electricity from a power marketer and receives both a contract for the delivery of power and a TRC for the amount of the purchase.

This certificate system emerged a few years ago in states that restructured their industry to provide retail competition. Because electric supply companies do not know the costs they have incurred until their customers' meters are read, the wholesale market in TRCs—separate from the wholesale market for the electrons that create grid power—became an essential aspect of retail restructuring.

A supply company selling renewable electricity is required to possess enough TRCs to meet their obligations to their customers. Supply companies contract with power marketers in advance for future deliveries to the grid. If they contract for less electricity than their customers actually use, they must also make additional purchases after the fact to cover their customers' use. If they contract for more than their customers use, they have electricity to sell. The same situation exists with the buying and selling of TRCs. Because power grids are regional and all interconnected, the wholesale TRC market paved the way for power marketers to sell TRCs directly to retail customers in any state, with or without restructuring.

Power marketers selling TRCs to retail customers sell the electricity to supply companies at the wholesale price for conventionally generated electricity. They cannot provide the supply company with a TRC because the TRC has already been sold to a retail customer. For this reason, a consumer buying a TRC has the same effect as buying renewable electricity as a product—electricity is added to the grid from a renewable source. The only difference is that with a TRC, the quantity is deter-

mined by the contractual amount of the TRC, and with a product, the quantity (and cost) is determined by the amount actually used as measured by the meter.

If we buy renewable electricity, how do we know we are getting what we pay for?

There are several organizations that certify renewable electricity. The most prominent is the Center for Resource Solutions that sponsors of ***Green-e*** certification.

Green-e is a label certifying that a renewable product or TRC meets specific technical and ethical standards established by the non-profit Center for Resource Solutions. It certifies products, not companies, because many suppliers that sell certified products also sell non-certified products. ***Green-e*** publicizes its standards, as well as the availability of certificates and products in each state, on their website <www.green-e.org>, and conducts annual audits to be sure the standards are met.

Green-e does not certify electricity from trash-to-steam plants, which some states classify as renewable. Other renewable sources that have been controversial among some environmentalists are biomass projects involving factory farm wastes and landfill methane. ***Green-e*** evaluates biomass facilities on a case-by-case basis. After extensive consultation with independent scientists, it was concluded that using landfill gas to generate electricity in compliance with Clean Air Act standards is far preferable to flaring it or permitting its release.

It is important to understand that electricity comes through your meter from the pool of electrons in the region's electric grid, and all electrons are the same. When you buy renewable electricity, whether as a product or certificate, you are paying for electricity put into the grid on your behalf from a renewable source. It means agreeing to pay more than your neighbor pays for the same end product.

There is no technology that does not have an ecological impact. The range of impacts among suppliers of conventional electricity is huge, and there is also a range of impacts among the renewable products. The Power Scorecard website sponsored by Pace University <www.powerscorecard> uses an index to evaluate the environmental impacts of the products of many retail electric supply companies and marketers of certificates. If you have a choice of suppliers, you may want to check the Power Scorecard website. **However, no choice we make about how electricity is generated changes the obligation to use as little as is reasonably possible.**

Renewable Electricity and Public Policy

In the context of current economic conditions in the United States, creating an energy efficient electric industry based on renewable generation will require major changes in public policy at the national level. The industry is national in scope, and dominated by large corporations with many vested interests that are leading them to resist change.

Some foresighted, economically secure corporations are buying renewable electricity. They are learning that they can cover the added cost, and still add to their bottom line by investing in energy efficiency. But any company that depends on success in a competitive market is apt to lose market share to competitors and/or earn less profit for investors if its energy costs are higher. Recent and proposed changes in energy policy, including electric restructuring, focus on using competition and government subsidies to lower prices rather than on using regulations, taxes, or subsidies to reduce ecological costs by raising prices.

What is electric restructuring?

Electric restructuring involves separating, or "unbundling" the functions of generation, transmission, and distribution. It introduces price competition in the generation function while preserving the distribution function as a regulated monopoly. Wholesale price competition within the electric industry has existed since 1992 as a result of changes in federal regulatory legislation. The other form of restructuring, which its proponents call "deregulation," refers to creating retail price competition or "electric choice" for retail customers through the regulatory role of state governments. The proponents of electric choice were influential in many states until California, the first

Green-e Certification

Green-e Certified Tradable Renewable Certificates are available for consumers living anywhere in the USA from:

3 Phases
<www.3Phases.com> 415-346-7662
Aquila
<www.TheEnergyTeam.com> 816-737-7847
Big Green Energy
<www.BigGreenEnergy.com> 770-662-0256
Bonneville Environmental Foundation
<www.GreenTagsUSA.org> 503-248-1905
Community Energy
<www.NewWindEnergy.com> 866-WIND-123
EAD Environmental
<www.eadenvironmental.com> 212-806-0205
Mainstay Energy
<www.mainstayenergy.com> 877-GREENTAG
Renewable Choice Energy
<www.RenewableChoice.com> 303-652-0770
Sterling Planet
<www.SterlingPlanet.com> 770-408-7025
WindCurrent
<www.WindCurrent.com> 410-484-5079

Green-e Certified Electricity Products are available for residences in the following areas:

Massachusetts, Rhode Island, New England, New York, Pennsylvania, New Jersey, Santee Copper area of South Carolina, Tennessee Valley Authority area, Wisconsin, Sacramento and Palo Alto, California.

See <www.green-e.org> for details or for commercial uses.

state to introduce it, had a temporary supply problem and price spike in the winter of 2001. This seems to have slowed the momentum toward introducing retail price competition in many states.

What are the pros and cons of electric restructuring?

The main impetus for "electric choice" comes from industrial and large commercial customers who want to negotiate volume discounts with suppliers. Its proponents contend it will result in greater efficiency and lower prices. Consumer and environmental organizations are divided on the issue of retail price competition. Some see it as an important means of lowering prices for consumers, improving efficiency, and promoting renewable technologies through consumer demand. Others see it as creating additional ways to weaken the ability of governments to protect society and the environment from the excesses of unregulated markets, and for large companies and shrewd operatives to increase their power and profits at the expense of the general public. Consumer and environmental groups are united in their opposition to the energy legislation Congress is currently considering because there is so little in it to reduce societal and environmental costs.

Several organizations, among which are the Union of Concerned Scientists and the National Religious Partnership for the Environment, take no position on the issue of restructuring to provide retail competition, believing that how the industry operates in other ways is more important. Improving efficiency is essential, but keeping energy prices low does not help reduce energy use. Making a timely transition to a more decentralized energy system based on renewable technologies can be promoted or thwarted with or without "electric choice." The opportunity that now exists for anyone to buy renewable electricity in the form of a certificate removes a major reason to promote retail competition for potential environmental benefits.

What policies will promote a transition to decentralized, renewable technologies?

There are two key elements for promoting decentralized renewable energy that need to be included in federal and/or state legislation relating to the electric industry:

- Progressive "renewables portfolio standard," requiring all electric utility and supply companies to gradually increase the percentage of renewable electricity in their products.
- "Net metering requirement," stipulating that small independent generators—homeowners and small businesses with solar panels or micro-turbines—only pay for the difference between what they take from the grid and deliver to it.

It is also essential to reduce and eventually eliminate subsidies, incentives, and preferential tax treatment for fossil and nuclear industries, and to strengthen subsidies and incentives for renewable technologies.

Perhaps the single most important short term policy goal is to prevent the weakening of existing air quality regulations and to end the exemption of older coal plants from current air quality standards. It is essential, as soon as public sentiment will support it, to institute a tax on carbon emissions.

Why does renewable electricity cost more?

The fact that renewable electricity costs more points to a fundamental disconnect in the way we think about money and what we buy with it. We know, on the one hand, that much of what we buy entails costs to society and damages to the earth that are not part of the price. We understand that prices must reflect full costs if the economics of markets are to benefit society as a whole and make a sustainable human-earth relationship possible. Yet we persist in thinking that if something costs more we shouldn't buy it because someone is ripping us off.

Many people ask "how long will it be before the cost of renewable electricity comes down?" The renewable energy now being sold, which is mostly from landfill gas, wind turbines, and hydropower, would be cheaper than energy from coal, oil, or nuclear fuel if all government subsidies were eliminated. The questions we need to be asking are "how long will it be before public policy changes so that energy prices reflect real costs and go up—way up?" And, "what can we do as citizens to bring this about?"

One thing we can each do is to pay more for our own electricity, so that the amount that we use comes from renewable sources. We can reduce the effects of the electricity we use on the earth and future generations.

For More Information

Green Power Network <www.eere.energy.gov/greenpower/>
EPA Green Power Partnership <www.epa.gov/greenpower/>
Green-e Renewable Electricity Certification Program <www.green-e.org >
Friends Committee on National Legislation <www.fcnl.org>

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What Can Friends Do?

- Buy renewable electricity, either directly—if renewable electricity is available in your state—or as TRCs.
- Urge your Friends to buy renewable electricity.
- Help expand the market for less polluting electricity.
- Tell the politicians—by word and deed—that this is something you are willing to pay for.
- Lobby for renewable energy in national legislation—check FCNL <www.fcnl.org> .