

# ***Buying Green Power***

## ***Does It Make Cents for Your Company?***

***Barry Friedman***



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### **Executive Summary**

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Can your company justify buying green power? Can it do so in business terms? That depends on your corporate goals and branding strategy as well as your organizational philosophy. Some businesses can cite precedent for values-based expenditures made for reasons beyond the bottom line. Others have as much as told us, "If I can't make the case in dollars and cents, it will fall on deaf ears. I know it might sound draconian, but that's the way it is."

Although a green energy purchase should not be expected to pay for itself with a direct economic return, such an investment is not without its tangible offsets. These benefits have been persuasive with CFOs and other decision-makers at several Fortune 500 companies. Green energy purchases are no longer the exclusive province of the Ben & Jerry's of the world. In the process of gathering and evaluating disparate tangible benefits into a complete menu of arguments for making the green energy business case, we conclude that the three most compelling arguments are, in order of importance:

- Quantifying the free, or "earned," media value of renewables;
- Using renewables to help hedge against escalating electricity rates that are based on rising fuel costs; and
- Using renewables to attract the few but loyal customers who use their spending power to support companies that help the environment.

## Green Energy Focus

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E SOURCE  
Boulder, Colorado  
tel 303-444-7788  
e-mail [esource@esource.com](mailto:esource@esource.com)  
web [www.esource.com](http://www.esource.com)

## What Is Green Power?

Green power, alternately referred to as “renewable energy,” “green energy,” and several other names, is electricity generated from energy sources that are “commonly accepted as having a relatively low impact in human, animal, and ecosystem health.”<sup>1</sup> These sources include the wind, the sun, water (hydropower), biomass, and landfill gas. Companies and other institutional buyers interested in displacing some portion of their electricity use with green energy will generally have to pay some premium for it. This premium can range dramatically, from as low as \$5 to as high as \$90 per megawatt-hour (MWh), often depending on the quality of the product (for example, whether the generation facility is new or preexisting), the proximity of the generation facility to the place of consumption, and numerous other factors. Prospective green energy buyers often have two distinct types of vendors offering to sell them two distinct types of products: their local utility, selling green energy through what are known as “green pricing programs,” and national purveyors of renewable energy credits (RECs), also referred to as “green tags.”

## RECs Versus Bundled Green Power

A renewable electricity generator can be thought of as providing two products: electricity that goes into the grid and the environmental attributes (such as reduced carbon dioxide [CO<sub>2</sub>] relative to fossil-fired generation) associated with the renewable generation.<sup>2</sup> The concept behind RECs is for these two products to be separated. The electricity itself, contractually shorn of its environmental attributes, can be sold into the grid as a commodity. The environmental attributes, meanwhile, can be represented by a REC, which is then traded on a secondary market. Both the electricity itself and the unbundled envi-

ronmental benefits are easier to buy and sell separately than traditional “bundled” green energy. In fact, this is the distinction between RECs and green energy: RECs include only the environmental attributes, while green energy includes both the attributes and the electrons.

Some generally accepted advantages and disadvantages of RECs have emerged in the marketplace. For one, RECs are often less expensive per MWh than green energy, in part because they often come from generation facilities located some distance from the customer purchasing them. This advantage has driven several large REC purchases. Additionally, the per-MWh savings associated with RECs have allowed some companies to displace a greater percentage of their consumption with RECs than they would be able to with bundled green energy. Mark Buckley of Staples prefers RECs for these reasons: “Lower transaction costs, no regional limitations, the ability to aggregate—all that drives the cost down.”<sup>3</sup> RECs also make a green energy purchase possible for companies that have no green pricing program available to them from their local utility.

On the other side of the ledger, a bundled product may be easier to explain to stakeholders; explaining RECs can be cumbersome. This is one reason Dennis Canavan of Johnson & Johnson, which buys both RECs and bundled green energy, prefers the latter wherever it is available. “Tags can be hard to explain both publicly and to internal decision-makers watching budgets—especially tags from facilities non-local to J&J plants or offices,” Canavan told us. “I think [bundled green energy] is much more direct. We’re getting tags from biomass in Kentucky—I don’t know anything about that plant.”<sup>4</sup> Larry Rogero of Kinko’s, which also buys both bundled green energy and RECs, prefers bundled power for the marketing benefits: “I pre-

fer working with utilities over green tag marketers. The whole marketing component is much easier to do. When you go with a utility and buy a product they have, they're ready to stand up with you, do marketing around it, promote you as a good corporate citizen, and you don't get that with [tag marketers]. And we definitely don't get the same bang and the legs we get when we buy [RECs] . . . in the Pacific Northwest for branches in North Carolina.”<sup>5</sup>

## Who's Buying?

Thousands of North American businesses and governmental agencies are currently purchasing either green energy or RECs. Most buy some percentage of their load; for example, they may displace 5 percent or 10 percent of their total electricity consumption with green energy. Though some have been buying green energy for a significant period of time—up to eight or nine years in certain cases—most came on board within the past three or four years, particularly in 2003. The past few years have been a banner period for non-residential participation and have included substantial purchases by such Fortune 500 businesses as General Motors, Ford Motor Co., Johnson & Johnson, and Lowes. Other recent sizeable purchases include those of White Wave, a Colorado-based natural foods company, which displaces 100 percent of its consumption with green energy; the Canadian province of Alberta, with a very large purchase of 210,000 MWh per year; and several U.S. states and governmental agencies. The premiums paid by these and other non-residential buyers are all the more remarkable given the belt-tightening across all industries in the past few years.

The U.S. Environmental Protection Agency's Green Power Partnership provides technical assistance and public

recognition to organizations that make a commitment to buying green power. The program currently includes more than 350 Partner organizations—including Fortune 500 companies, government agencies, and universities—that are purchasing approximately 1.4 million MWh of green power annually, constituting a majority of the commercial, industrial, and institutional market for green power. The Green Power Partnership has developed valuable resources for prospective green power buyers, including a procurement guide; a green power locator, to help potential buyers identify local green power vendors; and a “Power Profiler,” to help users determine the air emissions impact associated with their electricity use. In addition, the Partnership's *Communications Guide* provides advice on how to promote a green power purchase, and the annual Green Power Leadership Awards provide recognition to leading green power purchasers nationwide. Additional information is available at [www.epa.gov/greenpower](http://www.epa.gov/greenpower).

First movers buying green energy include industries and businesses with higher community visibility than their neighbors, as well as those that have reason to believe their customers, employees, or shareholders track their environmental performance. However, based on the conversations we have had with corporate decision-makers, the main reason business customers buy green energy is not the public relations (PR) or community visibility. Rather, it is because of what we sometimes call the “predisposition factor.” That is, a given business has an environmental plan, mission statement, organizational values, or a key decision-maker who predisposes the organization to take actions to reduce the impact of its operations on the environment. Some decision-makers simply feel that making some portion of their energy purchases renewable is the right thing to do as corporate citizens. But often these same decision-

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makers are eager to find more tangible reasons to support the decision to buy. “It can be a struggle to convince operating decision-makers that this is real,” says Dennis Canavan of Johnson & Johnson. “It doesn’t reduce the cost of goods or anything; it’s just a cost. Any type of business person is not used to an argument not based on the bottom-line.”<sup>6</sup> Though the stalwart guardian of the bottom line won’t get the case he or she is used to, that same individual might be pleasantly surprised by some of the potential upsides of a green energy purchase.

## **Tangible Benefits**

The rest of this report explains the variety of tangible benefits that can be presented in efforts to persuade decision-makers that green energy purchases make sense.

### **PR and Earned Media**

Large green energy purchases are likely to be considered newsworthy, and companies making such purchases can expect public relations benefits. Some marketing and PR corporate decision-makers can point to their own research to support their companies’ need to rehabilitate poor environmental reputations; others merely wish to “walk the talk” of environmental mission statements or plans. The PR benefit is usually much stronger when the green energy purchaser is enjoying first-mover advantage, where the company is among the first in its region or industry to buy green energy.

PR benefits may be reaped through a combination of earned media, stories in the news media about green energy purchases, self-promotion through advertisements placed by the buyer, and promotion by the green energy (or REC) vendor on behalf of the purchaser. Many utilities and REC marketers offer preset “recognition packages” of these third-party endorse-

ments, with the size of the promotional expenditure directly reflecting that of the green energy expenditure. We recommend making sure that some type of recognition package comes with your purchase, as it can be quite valuable. A good rule of thumb is to request that the promotional value of the package you receive be at least 5 percent to 10 percent of your annual premium. As Mark Kapner of Austin Energy’s GreenChoice program points out, “Ads done by [the business’] ... utility are clearly more valuable than those they might do for themselves, since it means more to their customers and employees [coming from a third party].”<sup>7</sup>

PR professionals and other experts across industries are coming to some modest agreement on the appropriate benchmark value of earned media. Although there is no uniform agreement on the PR value of news stories, the consensus among PR professionals is that that they are worth more than the cost of an advertisement of the same length. More often, the value ascribed is at least triple the cost of an ad because of the enhanced credibility of an article, which is perceived as unbiased, compared with an ad. On this basis, some companies use a multiplier, or coefficient, as high as six times the value of the ad. The value formula, then, is generally expressed as follows:

Media value = cost of the advertisement multiplied by three, four, five, or six

or

$$V = A \times 3 \text{ to } 6$$

Thus to place a value on a radio news story, for example, one would research the cost of an ad in the same time slot, of the same length, and on the same station that aired the news story, and then use the coefficient to arrive at the value of the

story. Similarly, for a newspaper story, one would multiply the per-column-inch advertising rate by the total number of column inches of the story, and then apply the multiplier. Companies can decide which multiplier to use, depending on such variables as how much attention the particular company received in the story, but three is becoming a standard compromise: It's neither too conservative nor too risky from an accounting point of view (Table 1).

### Hedge Against Electricity Rate Increases

More and more utilities, along with their regulatory commissions, are reviewing the value of granting green energy customers exemption from increases in electricity rates caused by fuel price volatility, escalation, and delivery risk—particularly that of natural gas. This would, of course, only apply to whatever percentage of their consumption they displace with a green energy purchase. As a stable power product with no associated fuel costs, this is a logical benefit, and a potent one. We believe it should be attributed to green energy load, but not all utility commissions and utilities have yet adopted this view. To date, only nine green pricing programs offer this benefit.<sup>8</sup> The benefit also would not apply to REC purchases. We recommend contacting your utility if you are interested in this benefit, to determine if it is available to you and, if not, whether your utility is considering the issue.

If it is available to you, this benefit could reduce your company's need to hedge electricity prices or negotiate a fixed-price electricity contract at a premium. Locking in a price for at least a portion of your electricity load, through a green energy purchase, is often a compelling benefit and has already been a primary driver in some green energy purchases.

**Table 1: Sample media valuation**

This example, based on the actual news coverage for the University of Pennsylvania's and Penn State University's green energy purchases in 2001, depicts the methodology for valuing media. The column titled "Media value" shows a figure three times the cost of an equivalent-sized advertisement (second column x third column x 3 = media value), based on the higher value of a news story. Early adopters and large purchases in a given region are most likely to gain earned media of this breadth. Most ad agencies can provide local media costs in one spreadsheet; if not, you can ascertain rates from the media outlets themselves.

Media outlet	Ad rates <sup>a</sup>	Amount of exposure	Media value (US\$)
<i>The Philadelphia Inquirer</i>	\$250 per column inch	10 column inches	7,500
<i>The Pittsburgh Post-Gazette</i>	\$200 per column inch	6 column inches	3,600
<i>Daily Pennsylvanian</i>	\$680 per half page ad	Three half-page articles	6,120
NBC Channel 10 (Philadelphia)	\$2,200 per minute	Three-minute segment	19,800
Total			37,020

Note: a. Ad rates are rounded to the nearest \$10.

Source: E SOURCE

"Hedging against fuel increases is exactly one of the line items we put in our appropriations for solar systems at our sites. I feel it should be part of the accounting for renewables," Harry Kauffman of Johnson & Johnson told us.<sup>9</sup> The more a given utility relies on natural gas to generate the electricity it delivers, the greater the risk of electricity rate increases to end users served by the utility, and the greater the potential benefit of renewables.

### Catering to the Greens

Can you appeal to more of your potential customer base and generate a gain in sales by buying green energy? We believe so, but we have modest expectations in this regard. Increasing numbers of businesses are coming to understand the general public's growing interest in the pollution caused by fossil-fuel generated electricity, and those businesses are taking action. Green energy is slowly gaining traction as a meaningful replacement for fossil fuel-generated energy, particularly for parents and other customer segments that are predisposed to care about future generations. Some companies specifically court the so-called "environmental purchaser," the segment of the population that consciously spends dollars on companies working toward environmental sus-

tainability. Several organizations have formed to provide resources to such companies and help them communicate their environmental good deeds to the right consumer segments (**Table 2**). According to RoperASW's 2002 *Green Gauge* study, 30 percent of Americans closely follow the environmental records of large companies.<sup>10</sup> This segment is sometimes referred to as the "lifestyles of health and sustainability (LOHAS)" market, estimated to be worth \$230 billion in the U.S.<sup>11</sup> This group of buyers has already demonstrated spending power behind "sustainable businesses," such as Patagonia and Ben & Jerry's.

Some large companies are buying green in the hopes of even a small surge in sales. For example, let's say a \$6 billion company with a sub-par environmental reputation, operating on a 20 percent margin, attempted to rectify its image among

LOHAS members through environmental initiatives such as buying renewables. Let's say it successfully communicated this effort and received a 0.05 percent boost in sales that it plausibly tracked to the greens, who were now motivated—or at least finally willing—to buy the company's product. That initiative, bringing in \$6 million net annually, funds an \$18 million green energy purchase over three years.

Some large companies have concluded that they are losing market share to smaller regional players that are not equated with "corporate greed" in the minds of LOHAS consumers. One corporate energy manager told us that he made this pitch to upper management with excellent results. "This was a case nobody expected me to make," he said. "All they ever expected to hear from me was energy savings and pay-back on capital investment, not how we can get a bump in sales." Using the "catering to greens" argument to help justify the green energy expenditure will in part depend upon your company's ability to track and isolate the cause of the sales increase. Though this can be challenging, companies are becoming more sophisticated in their ability to do such tracking.

Some companies view the movement toward sustainability in business as transcending the LOHAS niche market. Mark Buckley of Staples told us, "We want our position in the marketplace to be the customers' sustainability solutions provider."<sup>12</sup> To do this, Staples is implementing a multi-faceted approach to sustainability, featuring aggressive energy conservation and green energy procurement as well as a reduction in its greenhouse gas emissions.

Health product and service industries, in particular, cater to consumer segments that share characteristics with the prototypical green energy buyer. There is a significant overlap between health conscious

**Table 2: Sustainable business organizations**

A green energy purchase can be a fundamental component of a plan for corporate sustainability. If your company is interested in developing a sustainability plan, these resources can provide assistance.

Resource	URL
Co-op America's Green Pages Online	<a href="http://www.greenpages.org">www.greenpages.org</a>
Business for Social Responsibility	<a href="http://www.bsr.org">www.bsr.org</a>
Coalition of Environmentally Responsible Companies	<a href="http://www.ceres.org">www.ceres.org</a>
Global Environmental Management Initiative	<a href="http://www.gemi.org">www.gemi.org</a>
GreenBiz.com	<a href="http://www.greenbiz.com">www.greenbiz.com</a>
GreenMoney Journal	<a href="http://www.greenmoney.com">www.greenmoney.com</a>
International Council for Local Environmental Initiatives	<a href="http://www.iclei.org">www.iclei.org</a>
International Hotels Environment Initiative	<a href="http://www.ihei.org">www.ihei.org</a>
ISO 14001	<a href="http://www.iso14000.com">www.iso14000.com</a>
LOHAS	<a href="http://www.lohasjournal.com">www.lohasjournal.com</a>
Natural Business	<a href="http://www.naturalbusiness.com">www.naturalbusiness.com</a>
Natural Foods Merchandiser	<a href="http://www.newhope.com/nfm-online">www.newhope.com/nfm-online</a>
Nutrition Business Journal	<a href="http://www.nutritionbusiness.com">www.nutritionbusiness.com</a>
SocialFunds.com/SRI World Group	<a href="http://www.socialfunds.com">www.socialfunds.com</a>
SustainableBusiness.com	<a href="http://www.sustainablebusiness.com">www.sustainablebusiness.com</a>
The GreenBusiness Letter	<a href="http://www.greenbiz.com">www.greenbiz.com</a>
The Natural Step	<a href="http://www.tns.org">www.tns.org</a>
U.S. Green Building Council	<a href="http://www.usgbc.org">www.usgbc.org</a>

Source: E SOURCE

and clean air conscious consumers.<sup>13</sup> It is logical to assume that household buyers of green energy might be more likely to support business buyers of green energy. In many cases, these businesses also have ready-made ways of promoting their green energy purchases: manufacturers can do so on their packaging, and retailers can tout their purchase on store kiosks and bulletin boards. Sectors facing market saturation have told us they are looking for creative ways to distinguish themselves (and their products) at the point of purchase; green energy purchases could meet this criterion.

Corporate green energy purchasers are also paying more attention to other stakeholders, such as employees, community and environmental organizations, and investors. The marked increase in socially responsible investing in recent years suggests that investors also respond to companies implementing environmental plans, including green energy purchases.

### **Peak Shaving, Using Solar Power**

This benefit requires placing photovoltaic units on-site at companies' facilities. Because peak energy usage often coincides with peak sunlight, the extra energy production during these daylight periods can result in significant energy cost savings, particularly on onerous expenses that may apply, such as demand charges. Some companies apply the savings to the purchase of additional green energy from their utility. Several corporate energy managers have told us that they are also attracted to the reliability benefits derived from co-locating power with load at plants, office buildings, and retail facilities. The co-location provides a hedge against business interruption. Solar energy also tends to be of interest to the news media, as recent headline-earning installations at Johnson & Johnson, Whole Foods, and Frito-Lay Inc. demonstrate.

### **For More Information**

We invite you to contact us to learn more or to get answers to your questions: Barry Friedman, research manager, *Green Energy Service*, tel 303-444-7788, e-mail [barry\\_friedman@esource.com](mailto:barry_friedman@esource.com).

### **About the Author**

**Barry Friedman**, research manager, investigates and writes about strategic marketing issues for the *E SOURCE Green Energy Service*. He is author of “Outsourcing for Green Pricing Programs,” “Market Research Survey II: Finding Green Energy Buyers,” “Just How Good Is Green?” “Tradable Renewable Credits: An Overview,” “The Keys to the Green Suite: Bundling Green Energy with Energy Efficiency and Related Offerings,” and “Across the Green Divide: What Green Energy Marketers Can Learn from Other Green Marketers.” Barry holds a JD from the Fordham University School of Law and a BA in theater from the State University of New York at Binghamton. He is also certified with CDR Associates in multi-stakeholder environmental conflict resolution and is an experienced mediator.

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## Notes

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- 1 Duncan Austin and Craig Hanson, "Introducing Green Power for Corporate Markets: Business Case, Challenges, and Steps Forward" (July 2002), World Resources Institute, Washington, D.C., 202-729-7600, [www.thegreenpowergroup.org/marketplace.html](http://www.thegreenpowergroup.org/marketplace.html), p. 1.
- 2 Paul Komor and Adam Capage, "Renewable Energy Credits: What Can They Do for Utilities?" *E SOURCE Green Energy Service*, GE-13 (November 2003), p. 3.
- 3 Mark Buckley, personal communication (April 13, 2004), Director of Facilities, Staples Inc., Framingham, MA, 508-253-0510, [mark.buckley@staples.com](mailto:mark.buckley@staples.com).
- 4 Dennis Canavan, personal communication (April 15, 2004), Executive Director, Energy, Johnson & Johnson, New Brunswick, NJ, 732-524-6269, [dcanava@corus.jnj.com](mailto:dcanava@corus.jnj.com).
- 5 Larry Rogero, personal communication (April 19, 2004), Manager, Environmental Operations, Kinko's Service Corp. Inc., Ventura, CA, 805-477-5569, [larry.rogers@kinkos.com](mailto:larry.rogers@kinkos.com).
- 6 Dennis Canavan, personal communication [4].
- 7 Mark Kapner, personal communication (March 12, 2003), Manager, Conservation and Renewable Energy, Austin Energy, Austin, TX, 512-322-6123, [mark.kapner@austinenenergy.com](mailto:mark.kapner@austinenenergy.com).
- 8 Lori Bird, "Fuel Price Stability Benefits of Renewables: Adding Value for Green Power Customers," presentation to the 8th National Green Power Marketing Conference, Chicago, IL (November 3, 2003), Senior Energy Analyst, National Renewable Energy Laboratory, Golden, CO, 303-384-7412, [lori\\_bird@nrel.gov](mailto:lori_bird@nrel.gov).
- 9 Harry Kauffman, personal communication (February 18, 2003), Corporate Energy Director, Worldwide Engineering Services, Johnson & Johnson, New Brunswick, NJ, 732-524-3174, [hkauffm@corus.jnj.com](mailto:hkauffm@corus.jnj.com).
- 10 RoperASW, "Green Gauge Report 2002" (November 2002), from [www.windustry.com/conference/proceedings/plenary/greenguage2002.pdf](http://www.windustry.com/conference/proceedings/plenary/greenguage2002.pdf) (accessed March 4, 2003).
- 11 Paul H. Ray and Sherry Ruth Anderson, *The Cultural Creatives* (New York: Harmony Books, 2000), [www.culturalcreatives.org/faq.html](http://www.culturalcreatives.org/faq.html).
- 12 Mark Buckley, personal communication [3].
- 13 Barry Friedman, "Market Research Survey II: Finding Green Energy Buyers," *E SOURCE Green Energy Service*, GE-11 (July 2002), p. 7.