



**Center For Resource Solutions | 2006 Annual Report**

clean energy **healthy communities**



The most important, difficult,  
and neglected questions  
of energy strategy are not  
mainly technical or economic  
but rather social and ethical.

—Amory B. Lovins  
from *Energy Strategy: The Road Not Taken?*

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## Letter From the President

I come to work at CRS's Presidio office each day to a team of people who are smart, creative, dedicated, and hardworking.

You really can't ask for much more in a staff. When visitors come to our office, they often comment on how small CRS is relative to the influence we have maintained over the years. That is true—today we have 17 staff members who implement CRS programs that bring innovation and credibility to almost all sectors of renewable energy and climate change solutions.

CRS's 10-year-old Green-e Renewable Energy Certification program **protects consumers** who want to balance their environmental footprint through the purchase of renewable energy. Our policy analysts make sure sound **renewable energy and greenhouse gas policies are implemented in ways that will maximize the potential the lawmakers intended**. We influence policy development in the United States, Canada, China, Europe, and Latin America. We play a large role in the **corporate environmental movement through our work with businesses** in the Green-e Consumer Labeling program. But looking back on the last nine years, our largest contributions have come from **our networking approach that has built a strong community within the renewable energy sphere resulting in consensus-based initiatives and widely used best practices**. Many credit the strong community within the renewable energy industry as being one of the primary reasons renewable

energy has historically become one of the most successful examples of achieving environmental good, and a model for future endeavors.

The CRS philosophy has always been to act as a catalyst in bringing about the regulatory and market conditions necessary to support a cleaner and more sustainable energy sector and improve people's quality of life. This year, CRS expanded its reach even further to take on the issue of creating strategies that can be used by the average person or business to help reduce their climate change impacts.

We recognized the need for standards in the unregulated carbon/greenhouse gas offset market, and initiated a greenhouse gas offset certification process for voluntary markets in North America. But the topic was of such broad interest that we have had stakeholder participation from around the globe. We also partnered with members of the foundation community to initiate a program specifically designed to help environmental grantmakers and their grantees reduce their greenhouse gas footprint. Finally, we established strategies for efficiently integrating renewable energy and energy efficiency into climate change programs and policies.

In 2006 we believe renewable energy came of age both in the marketplace and in the public's minds as a critical tool for reaching our collective climate change and sustainability goals.

As a result, CRS turned a corner in bringing together the many pieces of the puzzle that have occupied us during the first nine years of our organization into a coherent vision that we will pursue over the next decade. We believe in the power of the individual to change the world and we invite you to join with us in achieving a vision of an economically, socially, and environmentally sustainable world.







**Jan Hamrin**  
President



## Implementation

One of CRS's greatest strengths is in the creative implementation of policies and programs that unlock hidden potential and achieve the results lawmakers intended.

CRS is skillful at creating law-implementation tools such as renewable energy generation information systems that track renewable energy generation, and key climate change mitigation strategies (as we have done in New England with the Regional Greenhouse Gas Initiative and in the California *Achieving a 33% Renewable Energy Target* report) that support achievement of legislative and regulatory goals. The following are some of the implementation projects CRS tackled in 2006.

### **China's Renewable Energy Law**

China's renewable energy law became effective January 1, 2006. Moving forward, there will be a great deal of work to do to achieve its main targets of 5 percent renewable energy by 2010 and 16 percent renewable energy by 2020.

CRS offered some conclusions and policy recommendations that addressed challenges to the current wind concession model and offered assistance in showing the synergistic benefits of a feed-in law in conjunction with a tendering process. The team introduced concepts from large utility tenders in Quebec, and drafted a series of reports on wind development, including how to incorporate domestic wind technology manufacturing—helping Chi-

na build an implementation blueprint to actualize its renewable energy targets.

### **The Regional Greenhouse Gas Initiative (RGGI)**

RGGI stands as the United States' first highly visible and environmentally significant greenhouse gas (GHG) trading program and is slated to be replicated both domestically and internationally.

Following CRS's model of community building through stakeholder participation, CRS stepped forward and convened its fellow renewables stakeholders who do not want renewables to suffer the same fate in the nation's SO<sub>2</sub> and NO<sub>x</sub> trading programs.\*

CRS was successful in constructing a potential strategy to allow end use renewable energy consumers to be able to take credit for the greenhouse gas benefits associated with their voluntary purchases. This was dubbed the "Off the Top" strategy and was included in the final RGGI Model Rule guidance for participating states. Since that time, CRS has worked with state decisionmakers

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\* If the RGGI process results in rules that follow the SO<sub>2</sub> trading model, only giving allowances to emissions-producing generation, the renewable energy industry would no longer be able to make any claims that it improves air quality. This is a crucial factor in the rapidly expanding voluntary renewable energy market and would result in renewable energy generators potentially losing millions of dollars in annual sustaining income.





**Lars Kvale**

Certification & Analysis Analyst  
(with sons Anders and Mathias)



to incorporate this type of approach in their implementing legislation and programs.

**CRS engages directly with energy users to assist them in better managing their energy resources.**

In 2006, CRS worked with the Golden Gate National Recreation Area to help the National Park manage its energy use and costs, and to assess the Park's renewable energy options.

Certificate-based **tracking systems** are important to the growing renewables market because they facilitate certificate transfers and trading, enable permanent retirement of renewable energy certificates (RECs), assist regulators with the implementation of renewable programs, and bring transparency to the REC markets. They help to build regulator and public confidence in RECs by validating REC transactions and REC ownership. Certificate tracking systems are used to verify REC transactions and shield buyers and sellers from potential double counting or double selling.

Certificate-based tracking systems function as electronic databases that issue and track certificates of generation in a defined geographic region. These tracking systems take electricity generation data and issue certificates for each MWh produced from registered generators. Once issued, certificates can be traded and transferred easily regardless of the actual energy flow. Certificate tracking system users (like utilities, renewable energy marketers, or large energy users) typically retire certificates to meet a regulatory requirement, such as a state renewable portfolio standard or when the certificates are sold to end-use customers, either through a REC-only transaction or as a green electricity product.

## Regional Tracking Systems

### MRETS

In 2006, CRS advised a coalition of six midwestern states on the design of a regional renewable certificate tracking system. CRS produced the final design specifications for the Midwest Renewable Energy Tracking System (MRETS).

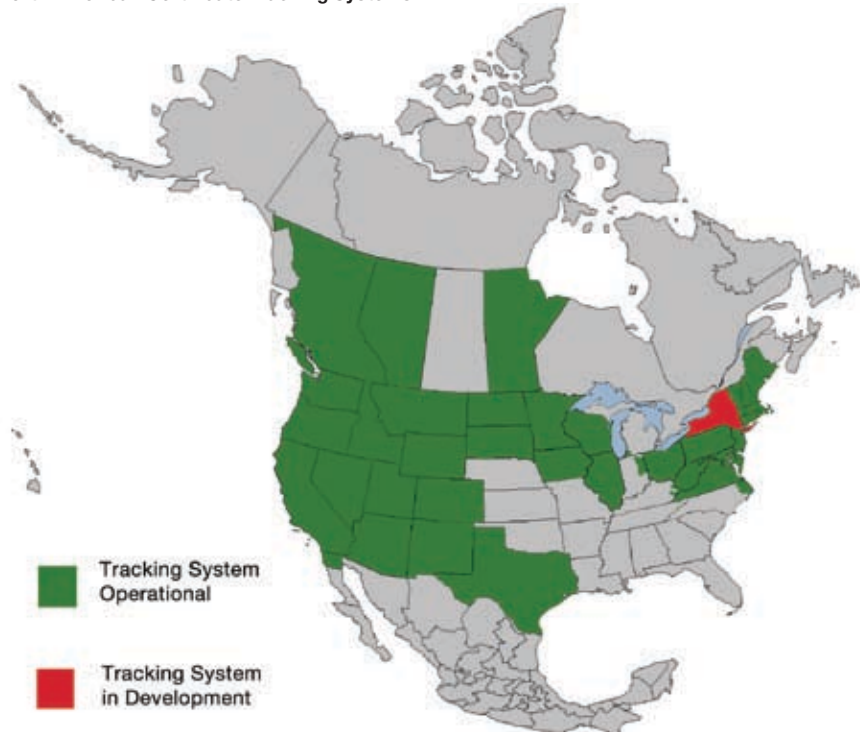
### WREGIS

CRS provided the California Energy Commission with expert technical assistance on the design and development of the Western Renewable Electricity Generation Information System (WREGIS). CRS was also part of a consulting team that assisted the state of New York and stakeholders in the initial design of a certificate-based tracking system to meet some of the environmental disclosure and renewable program needs of the state. This work continues through 2007.

### NAAIB

In 2006, CRS created and facilitated a voluntary association of certificate tracking systems. The North American Association of Issuing Bodies (NAAIB) was incorporated in 2007 to prevent double counting and promote harmonization among certificate issuing and tracking systems in North America. Such harmonization will encourage trade, create a common currency for certificates of generation, and will facilitate regulatory implementation of programs that allow broad geographic eligibility, prevent double counting, and support existing and emerging markets for renewable energy, energy efficiency and other environmental attributes. Parties involved in the development of the NAAIB include tracking system operators, energy and environmental regulators, generators, developers, REC marketers, GHG registries, and environmental organizations in Canada, the U.S., and Mexico.

**North American Certificate Tracking Systems**







**Meredith Wingate**  
Co-Director, Clean Energy Policy,  
Design & Implementation



# Consumer Protection: Building Policies & Markets

CRS has always focused on the consumer in the context of energy and the environment.

The activities undertaken by CRS toward this goal include the management of the Green-e Renewable Energy program and other market-shaping regulatory policy initiatives. The Green-e program aids consumers by constructing strict environmental and consumer protection standards for renewable energy, developing broad stakeholder support for these standards, and getting widespread participation of buyers and sellers in the program. To ensure that marketers do business in accordance with the Green-e standard, Green-e requires each marketer to undergo extensive verification to ensure that participants meet the criteria and that the benefits purchased by consumers were indeed delivered on their behalf. The Green-e program is currently expanding to certify GHG reductions.

Concurrently, CRS operates a number of programs that provide further guidance to regulators, consumers, and marketers of energy. CRS staff compiles best practices in energy policies and markets, and reports on timely policy topics in the renewable energy industry.

## **Growth in Credible Renewable Energy Options**

Green-e certified renewable energy sales increased by over 90 percent in 2006 compared to 2005. This significant increase came from a doubling of REC sales from 4.4 million MWh in 2005 to 8.8 million MWh in 2006. The volume of renewable energy sold through Green-e certified green pricing programs

increased by 29 percent while sales by electricity service providers grew by 36 percent. The total amount of Green-e certified renewable energy in 2006 far surpassed the 2005 figures in all categories—climbing to a total of 10 million MWh of certified renewable energy sold to residential, commercial, and wholesale customers.

The increase in total sales was due to increased participation in utility green pricing programs and large commercial purchasers, including businesses that contracted to use the Green-e logo through the expanding Consumer Labeling Program.

## **Green-e National Standard**

In 2006, Green-e's Renewable Energy Certification program transitioned from a framework of regional policy variations and distinct product-type criteria to a unified national standard for all product types and regions. This has simplified the Green-e program policies for renewable energy customers and marketers, and has streamlined administration of the program, allowing more time to focus on policy-setting work on emerging issues.

## **Green-e Greenhouse Gas Emissions Reduction Product Standard**

How does one represent the carbon benefit of RECs?

The growth in Green-e Certified Renewable Energy sales has been matched with increas-



ing interests by individuals and organizations in offsetting not just electricity use but also their entire GHG footprints. As the marketplace for GHG offsets developed, CRS observed the same need for consumer protection standards that the voluntary renewable power market faced 10 years ago. In 2006, CRS began an effort to develop a standard for environmental integrity and consumer protection for the nascent and quickly growing voluntary GHG emission reduction market place.

With the help of the Green-e GHG Advisory Group, CRS staff released a first draft of the Green-e GHG Emission Reduction Product Standard for stakeholder consultation in December 2006. The standard, to be finalized and used as basis for a new certification program that will be launched in 2007, provides the foundation for a consumer protection program for purchasers of GHG reductions sold in the voluntary marketplace.

This program will provide a critical link between the various regulatory and voluntary GHG *project* certification activities currently underway in the U.S. and abroad, and the GHG offset *products* offered to consumers and businesses. And as a sister program to the Green-e Renewable Energy Program, it will provide the basis by which consumers, businesses, and sellers of GHG reductions can link Green-e renewable energy purchases to GHG emission reductions.

### **Green-e Consumer Labeling Program**

The Green-e Consumer Labeling Program (CLP) is designed to assist companies that want to communicate their renewable energy use to their customers as well as leverage renewable energy investments being made by U.S. businesses and industry for GHG reduction purposes. By using the Green-e logo to communicate their environmental commitment to their

customers, participating businesses inform and educate the public about using renewable energy as a valuable tool to mitigate climate change.

CLP has successfully grown in its ability to empower companies and their customers to take action to reduce GHG emissions. Participating companies use the Green-e logo to promote their renewable energy purchases on websites, in building lobbies, through in-store displays and on their product packaging. By the end of 2006, 73 organizations were participating in the CLP, labeling over 200 consumer products with the Green-e logo. As the program grows, so does the potential to educate millions of consumers about the environmental benefits of using renewable energy. Purchasing everyday consumer products that display the Green-e logo is another way consumers can choose to support clean energy—by directing their purchasing dollars to products manufactured by businesses making

### **Alex Pennock**

Certification & Analysis Associate  
(with Evan Johnson, 2007 Fellow)







**Jennifer Martin**  
Director of Certification & Analysis



## Illuminating Policies and Guiding Thought

CRS's presence in nearly all policy sectors of the renewable energy and climate change sphere perfectly suits work on expert investigations of cutting-edge issues.

These issues, if addressed far enough in advance, can lead to new market mechanisms that remove growth barriers and foster highly effective roadmaps and blueprints for successful GHG mitigation strategies.

CRS makes these investigations and their resulting conclusions available to all interested parties.

### **2006 Reports**

#### ***Hedge Value of Renewable Energy***

This paper demonstrates the benefits of renewable energy as a hedge against electricity market fuel price fluctuation. The paper considers how regulators and electricity customers may address this opportunity either as a socialized cost/benefit scenario (by including renewable energy in the rate base), on an individual customer basis (through green pricing options that convey price stability benefits, via on-site installation of renewable energy generation technology under different business models, and through fuel switching), or through several approaches simultaneously.

#### ***Regulators Guide to Green Tariffs***

This reference guide for regulators involved in the design of renewable energy programs was written with a specific focus on tariff setting. It suggests best practices for designing renewable energy programs and highlights success stories in a series of case studies. This guide is divided into sections that can be read sequentially or referred to individually when particular issues arise. Key issues discussed in this guide include Green Pricing, Check-off Programs, Community Aggregation, Renewable Portfolio Standards, Public Benefits Funds, and Net Metering.

#### ***Fostering Renewable Energy Markets in North America***

This paper provides an overview of the key market demand and supply-side drivers for renewable electricity in each of the three North American countries. It then identifies regulatory mandates, voluntary purchases, self-supply and financial incentives as the most important drivers of a renewable electricity market in



**Matthew Lehman**  
Policy Analyst

North America today. The paper also explores the opportunities for growing the renewable electricity market in each of the three countries. The paper then concludes with a series of brief recommendations for the market overall and for the parties of the North American Agreement on Environmental Cooperation (NAAEC) to help foster a North American renewable electricity future.

## **NAAIB Reports**

### ***Achieving a 33% Renewable Energy Target***

This report was requested by the California Public Utilities Commission (CPUC) and funded by the Energy Foundation. It was developed to assist the CPUC in its responsibilities as part of the California Climate Action Team (CAT), and as an input to the CAT January 2006 report to the Governor on implementation of the state greenhouse gas reduction target. The purpose of the report is to assess how to accelerate and expand the current CPUC Renewable Portfolio Standard (RPS) and related programs to achieve the Governor's goal of meeting 33 percent of statewide electric power supply with renewable energy by 2020. This report identifies what the CPUC can do within the scope of its current jurisdiction and what changes in law are needed to expand renewables to meet the Governor's goal. This report also focuses specifically on necessary implementation steps, barriers that must be overcome and a step-by-step schedule for implementation and adoption of policy changes needed to accelerate California's RPS program to the 33 percent level. Wherever possible this project relies on existing research, analysis, and modeling results. The period of interest for this investigation is 2010 to 2020.



## Building Community Through Shared Values

CRS's leadership through collaborative and environmental innovation builds policies and consumer protection mechanisms that foster healthy and sustained growth in national and international markets for real-time solutions to climate change.

We strive to work within communities to address shared values for protecting and sustaining our environment for generations to come. Our grassroots, consensus-based approach to climate change solutions offers businesses, consumers, clean energy advocates, NGOs, and others an opportunity to take direct and immediate action in reducing their environmental footprint. In 2006, CRS built on its existing community-based programs as well as laying the foundation for the launch of several new community initiatives.

### Community Initiatives

#### Carbon Neutral Alliance

In mid-2006, CRS began to develop a customized program for foundations, especially



CARBON  
NEUTRAL  
ALLIANCE

those with a commitment to environmental and climate change issues, to help them evaluate their plans for reducing their own carbon footprints. Our research and previous work with the foundation community revealed their desire to make their own contribution to mitigating climate change and a chance to act as leaders in the effort to voluntarily incorporate greenhouse gas reductions strategies into their organizations.

In October 2006, CRS attended the Environmental Grantmakers Association's Fall Retreat, which enabled us to reach out to foundations to educate them on this initiative and to build a broader base of support for this program. Because of our participation in this event, many in the foundation community are interested in joining the Alliance. CRS launched the Carbon Neutral Alliance in 2007, information can be found on its website, [www.carbon-neutral-alliance.org](http://www.carbon-neutral-alliance.org).

#### Marketers' Marketers Group

The Marketers' Marketers Group is a forum for the renewable energy marketers' community

to gather on a quarterly basis to learn new tools, strategies and best practices for marketing renewable energy to select audiences. This program continued to thrive in 2006.

### **Eleventh Annual Renewable Energy Marketers Conference**

CRS hosted the Eleventh Annual Renewable Energy Marketers Conference in San Francisco in December 2006. This preeminent conference that assembles leading renewable energy and green power stakeholders to discuss current market trends and new directions for the renewable energy community generated record attendance in 2006. The theme for this year's conference was "Renewables on the Rise: Market Momentum, Development, and Innovation."

### **Renewable Energy Purchasers Programs**

#### **New England Renewable Energy Purchasers Program**

By the close of 2006, CRS and its partner Think Energy Inc. successfully

helped bring more than 20 businesses from communities across New England together to participate in a joint renewable energy purchasing program. These businesses found common ground through the selection of a purchasing mechanism that best fit their needs whether it was an aggregate renewable energy certificate purchase, a solar installation, or a potential investment in a biomass plant. This program's success and format will be used to develop other, similar purchasing programs both regionally and nationally.

#### **Bay Area Renewable Energy Purchasers Symposium**

CRS focused on building support for a new purchasers program in mid-2006 by hosting a symposium for Bay Area businesses to educate them on their renewable energy purchasing options. CRS partnered with the highly respected community leadership organization The Bay Area Council to attract leading businesses in the San Francisco Bay Area to this event. We exceeded our attendance

goals, bringing together leading Bay Area businesses, as well as experts in renewable energy technologies, and environmental NGOs interested in understanding their renewable energy options and sharing their success stories. Because of this educational symposium, several businesses approached CRS expressing interest in joining a Bay Area purchasing group similar to the group established last year in New England.

### **Robert and Patricia Switzer Foundation Leadership Fellow**

In mid-2006, CRS welcomed Robert and Patricia Switzer Leadership Fellow Cathleen Fogel, Ph.D. Thanks to a generous grant from the Robert and Patricia Switzer Foundation, Cathleen joined CRS for a one-year fellowship during which she focused on strategic planning, development and community building for a new CRS initiative—the Green-e Greenhouse Gas Emissions Reduction Product Certification program.





**Aleka Niedermier**  
Development &  
Business Accounts  
Coordinator





**Dee Young**

Director, Accounting & Human Services



# Financials

## Statement of Activities

Year Ended December 31, 2006

(With Comparative Totals for the Year Ended December 31, 2005)

	<u>Unrestricted</u>	<u>Temporarily Restricted</u>	<u>2006</u>
<b>Revenue and Support</b>			
Government contracts	\$153,876		153,876
Grants	\$92,714	485,000	577,714
Certification fees	\$353,378		353,378
Conference fees	\$252,560		252,560
Consulting	\$485,064		485,064
Net assets released from restriction (Note 7)	\$522,723	(522,723)	
<b>Total Revenue and Support</b>	<b>\$1,860,315</b>	<b>(37,723)</b>	<b>1,822,592</b>
<b>Expenses</b>			
Program services	\$1,414,123		1,414,123
General and administrative	\$318,456		318,456
Fundraising	\$66,283		66,283
<b>Total Expenses</b>	<b>\$1,798,862</b>		<b>1,798,862</b>
Change in net assets	\$61,453	(37,723)	23,730
Net assets, beginning of year	\$(66,437)	158,346	91,909
<b>Net Assets, End of Year</b>	<b>\$(4,984)</b>	<b>120,623</b>	<b>115,639</b>

## Major Contributors 2006

CRS would like to thank the following organizations for their contributions, which strengthen our ability to fight climate change by promoting energy-efficient solutions and increasing the supply of—and demand for—renewable resources.

Anonymous Contributor  
California Energy Commission  
Commission for Environmental Cooperation-Montreal  
EMPower  
The Energy Foundation  
Green Capital Network  
Henry P. Kendall Foundation  
HSBC—North America  
The John Merck Fund  
The Joyce Foundation  
KEMA, Inc.  
New York State Energy Research and Development Authority  
The Oak Foundation  
The Robert and Patricia Switzer Foundation  
Rockefeller Brothers Fund  
Sacramento Municipal Utility District  
The San Francisco Foundation  
U. S. Environmental Protection Agency





**Laurel Hilton**  
Director of Development



# 2006 CRS Staff

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Director of Technical Assistance  
& Resource Assessment

**Meredith Wingate**

Co-Director, Clean Energy Policy,  
Design & Implementation

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Switzer Fellow, Climate Change Program

**Dee Young**

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Director of Business & Promotional Services

**Jennifer Martin**

Director of Certification & Analysis

**Aleka Niedermier**

Development & Business  
Accounts Coordinator



## CRS Board

**Julie Blunden**

Vice President of External Affairs  
SunPower Corporation

**Claudine Cmarada (Schneider)**

President  
Solar Alliance

**Douglas DeNio**

Retired  
U.S. Park Service

**Nancy Floyd**

Managing Director  
Nth Power

**Mark Levine**

Senior Staff Scientist  
Lawrence Berkeley National Laboratory

**Karl Rábago**

Director, Global Regulatory Affairs  
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**Byron Sher**

Former Senator  
California State Legislature

**Carl Weinberg**

Principal  
Weinberg Associates

**Jan Hamrin**

Ex-Officio Member  
President, CRS



**CRS Board Members (L-R)** Rick Sellers, Carl Weinberg, Mark Levine, Nancy Floyd, Claudine Cmarada (Schneider), Jan Hamrin, Karl Rábago, Douglas DeNio, Byron Sher. Not Pictured: Julie Blunden.



The Center for Resource Solutions (CRS) is a national nonprofit with global impact. CRS brings forth expert responses to climate change issues with the speed and effectiveness necessary to provide real-time solutions. Our leadership through collaboration and environmental innovation builds policies and consumer-protection mechanisms in renewable energy, greenhouse gas reductions, and energy efficiency that foster healthy and sustained growth in national and international markets.



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CRS would like to thank New Leaf Paper for the generous donation of the paper used in this report.

**NEW LEAF PAPER®**  
 ENVIRONMENTAL BENEFITS STATEMENT  
*of using post-consumer waste fiber vs. virgin fiber*

Center for Resource Solutions saved the following resources by using New Leaf Reincarnation Matte, made with 100% recycled fiber and 50% post-consumer waste, processed chlorine free and New Leaf Sakura 100, made with 100% post-consumer waste and processed chlorine free, both manufactured with electricity that is offset with Green-e® certified renewable wind energy certificates.

trees	water	energy	solid waste	greenhouse gases
2 fully grown	451 gallons	1 million Btu	73 pounds	136 pounds

Calculations based on research by Environmental Defense and other members of the Paper Task Force.

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