



CarbonSaint<sup>TM</sup>

Everyone Needs To Do Their Part!<sup>TM</sup>

# The CarbonSaint™ System

## 1.0 Executive Summary

The world is faced with the unmitigated danger and potential for horrible tragedy that is Global Warming. We can not afford to allow the tragedy of the commons to claim the entire planet. The time has come for all good people to come to the aid of their planet and eliminate the human contribution to carbon emissions. The CarbonSaint™ system is the savior that we have been awaiting.

The CarbonSaint™ system operates in three parts:

First, by accurately monitoring carbon output by measuring weight of household weight generated, household energy usage, and vehicle usage.

Second, by establishing an online portal allowing a quick and convenient way for user to review their carbon output and make better choices.

Third, by linking organizations providing carbon remediation and sequestering to the online portal. The user can then pay the organizations to remediate or sequester an amount of carbon equal to what the user has generated. The user may even establish an automated system whereby the user's bank account or credit card is automatically billed each month in order to offset the user's carbon usage.

CarbonSaint™ operates with a revenue model that aims to be transparent to the user. We derive revenue by charging the carbon remediation or sequestering organizations a processing fee of 5% of all payments processed through our site. We also sell advertising on our online portal and have established an online store selling products of use to those seeking to live a carbon-free lifestyle.

## The CarbonSaint™ System

### 2.0 The CarbonSaint™ Carbon Monitoring System

The CarbonSaint™ Carbon Monitoring System uses real time data about a household's actual carbon generation to derive the most accurate available measurement of the household's carbon footprint. We do this by monitoring all of the primary generators of carbon in a household including: measuring weight of household weight generated, household energy usage, and vehicle usage.

In general, as a baseline carbon footprint measurement, it has been determined that the average American carbon footprint breaks down as follows – all tonnage figures are in metric tons. One metric ton = 2,200 lbs.

**Student:** bikes or buses to school, travels during summer & winter break, lives in a modern dorm or apartment building, producing **10 tons** of CO<sub>2</sub> annually

**Low Emission Adult:** commutes via bike, mass transit, or carpooling, travels occasionally, lives in a small energy efficient home or apartment, producing **15 tons** of CO<sub>2</sub>

**Medium Emission Adult:** commutes in a compact single-occupancy car, travels several times a year, lives in an average home, producing **20 tons** of CO<sub>2</sub>

**High Emission Adult:** commutes in a large single-occupancy vehicle, travels frequently, lives in a large inefficient home, producing **30 tons** of CO<sub>2</sub>

These estimates represent a very gross estimate and may not be very accurate with regard to the actual carbon footprint of a household. In an attempt to get a more accurate representation of carbon footprint, a number of online calculators have been made available. Some examples include:

[www.carbonfund.org/site/pages/individual/category/Carbon%20Calculators/](http://www.carbonfund.org/site/pages/individual/category/Carbon%20Calculators/)  
[www.carbonify.com/carbon-calculator.htm](http://www.carbonify.com/carbon-calculator.htm)  
[www.nature.org/initiatives/climatechange/calculator/](http://www.nature.org/initiatives/climatechange/calculator/)  
[www.terrapass.com](http://www.terrapass.com)

However, all of the carbon calculators require you to estimate and enter data.

None of the calculators receives real-time data from a variety of household sources and uses accurate, up-to-date data to generate a true carbon footprint measurement.

CarbonSaint™ alone offers this unique solution

## **2.1 Measuring The Weight Of Household Trash**

Research has indicated that the carbon footprint generated by a household varies with the weight of trash generated and the type of trash generated. We are unable at this time to automatically conduct an article-by-article analysis of everything in the trash, but we provide the user with the option of selecting one of three trash settings – each trash setting is associated with a different carbon per pound.

For example, trash that includes organic matter typically produces carbon as it decays, but metallic or glass trash does not. Also, trash generated from high-end products – the higher-end product typically required more carbon to generate and ship. For example, Beluga caviar that is shipped from Russia would be associated with a higher carbon cost for production than would an apple from the fruit trees in your backyard.

### **Trash Level 1 – Lots of Organic Matter and High-End Products**

May be selected by homes that consume at the higher end of the spectrum and has the highest carbon per pound.

### **Trash Level 2 – Some Organic Matter and Some High-End Products**

This is the setting that it is anticipated would be used by most households.

### **Trash Level 3 – No Organic Matter and Few High-End Products**

This is the setting for a household that properly practices composting and fully abides by the reduce, reuse, recycle principles.

## The CarbonSaint™ System

To measure the weight of the trash, we use a Bluetooth-enabled wireless digital weight scale such as the one shown here:

<http://www.tanita.com/en/hd351bt/184-catId.520093731.html>

The scale measures the weight of the trash and transmits it to the user's personal computer for transmission to the CarbonSaint™ website. Once we know the total weight and the user selects the Trash Level, we can determine the carbon generated by the user's trash.

### **2.2 Measuring Household Energy Usage**

We measure the household energy usage (both electricity and gas) using the EnergyHub <http://www.energyhub.net/>

The EnergyHub consists of a touchscreen Dashboard and Temperature Control Unit. The two devices communicate using a low-power ZigBee wireless link. Automatically adjusting your home's temperature while you're asleep or away can be the most effective way of conserving energy, saving you as much as 30% on your heating and cooling costs. And unlike programmable thermostats, EnergyHub's system is easy to use. The Dashboard also talks to your electric or gas meter to display your home's total energy use (as long as your utility has installed a modern "smart meter" with wireless capability).

There are a number of other monitor system that we are developing a relationship with, including all of those mentioned here:

<http://earth2tech.com/2009/04/14/10-energy-dashboards-for-your-home/>

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 FREE UPS Ground Shipping for orders over \$39.99!



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# HD-351BT Bluetooth Wireless Digital Weight Scale



**Product Details:**

The HD-351BT Bluetooth Wireless Digital Weight Scale, is a revolution in personal health maintenance. The HD-351 features a low-profile, oversized platform with a weight capacity of 440 pounds-making it the first scale available in its price range to accommodate a broader range of consumers. The HD-351BT also has the newest technology allowing the capability to transmit data wirelessly to a personal computer to record weight trends overtime. This scale is a great way to make sure your weight loss goals stay in check, even over time.

**Technical Specifications**

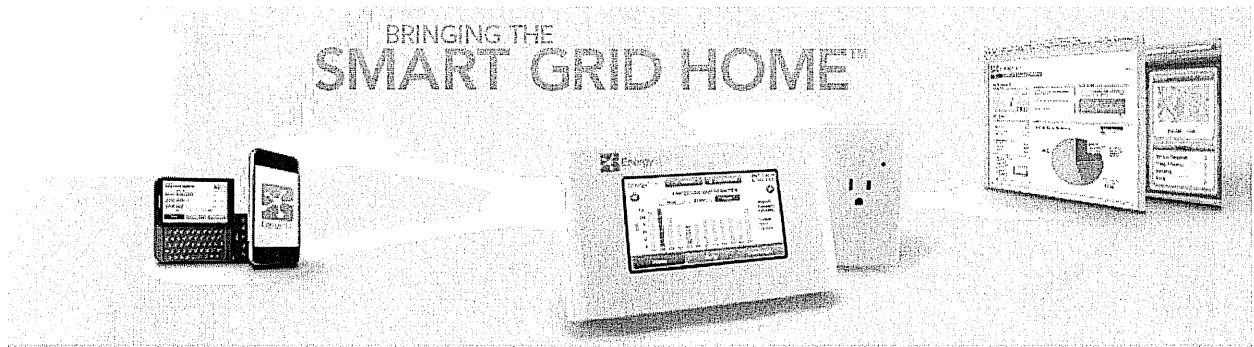
Capacity	Weight Increments	Power Supply
440 lb (200 kg)	0.2 lb (0.1 kg)	AA Batteries x 4 (included)

**Features and Specifications:**

- Extra-large weight capacity 440lb.
- 1.7", 2-line extra-large, easy-to-read LCD display Shows current and previous weight for up to 4 users
- Extra-large, low-profile, thin platform
- Available in nickel

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FOR CONSUMERS FOR UTILITIES NEWS ABOUT US JOBS



# BRINGING THE SMART GRID HOME™

**EnergyHub** is the consumer face of the Smart Grid, helping homeowners reduce energy consumption and save money.

**EnergyHub** produces smart, simple, and cost-effective energy management tools that strengthen the relationship between consumers and utilities and help solve the energy problems of today and tomorrow.

## Latest News

*Time Magazine* Names EnergyHub Dashboard a Best Invention of 2009  
Called one of the 'best new gadgets' and 'breakthrough ideas of the year'

EnergyHub Partners with Itron  
To provide consumers with real-time data and total control over energy usage

EnergyHub Announces Partnership with Con Edison  
EnergyHub and Con Edison to bring the consumer face of the Smart Grid to New York

[Read More](#)

### **2.3 Measuring Vehicle Usage**

When we are monitoring vehicle usage, we are really interested in monitoring gasoline consumption because it is the gasoline consumption that is the real generator of the carbon. Fortunately, for a well-maintained car, there is a known relationship between distance traveled and gasoline consumption.

In the CarbonSaint™ System, we provide users with several methods for monitoring their gasoline consumption and carbon production:

First, we provide the user with the ability to enter the actual gallons of gasoline consumed. If the user enters the actual number of gallons of gas consumed, we can convert that quantity directly into amount of carbon produced.

Second, the user can enter the make and model of the car and the numbers of miles driven. By knowing the car, we can automatically look up the specific MPG and use that to determine the actual number of gallons of gas consumed.

Third, we have an app on both the iPhone and several other GPS-enabled smart phones. When the user enters their car, they initiate the app on their phone. The app then uses the GPS to track the actual number of miles driven and then automatically transmits it to the CarbonSaint™ website. At the CarbonSaint™ website, the user enters the make and model of the car, which allows a look up of the MPG, which allows the calculation of the total number of gallons used.

We are also currently working with OnStar to develop a system wherein the OnStar system uses its internal GPS to track the actual miles driven (or uses the odometer) and then automatically transmits the mileage to our site.



#### **2.4 Products Available on CarbonSaint™ Website**

All of the products that are mentioned above for measuring the user's carbon footprint are available on the CarbonSaint™ website.

#### **2.5 Monitoring Not Required**

It should be noted that a user may still use the CarbonSaint™ website even if they don't want to do real-time monitoring. For example, instead of the wireless scale, the user may simply enter their trash in pounds. Similarly, the user may enter their electric, gas, and gasoline usage. Such a user can still use the carbon offset portion where they select an offset company and pay for their carbon footprint – their estimate will simply be less accurate.

## The CarbonSaint™ System

### **3.0 The CarbonSaint™ Website**

The CarbonSaint™ website is a centralized location for receiving the monitoring data from the household monitoring devices and determining the total carbon footprint for the household. The CarbonSaint™ website also allows the user – which we prefer to call “Saints” – to select a carbon offset organization to provide an offset for the carbon generated by the household.

A screenshot of the front page of the CarbonSaint™ website is shown on the following page. The page after that is a screenshot of the Account Login Page.

#### **3.1 Account Setup**

To establish an account, the Saint clicks on “Account Login” and is given unique codes to register each of the household monitoring devices. The Saint then identifies each household device on the website and configures each household device with the respective code. The Saint also establishes their unique login and password for the CarbonSaint™ website.

#### **3.2 Monitoring**

Here the Saint selects or adjusts their Trash Level, car make and model, monitoring device type, etc.

#### **3.3 Carbon Footprint**

All of the carbon information from the household monitor devices is displayed here. Carbon data can be displayed for the household as a whole or by device. We also

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have trending as a household and device. Additionally, we allow the Saint to compare their carbon generation with statistical information.

### **3.4 Carbon Offset**

One of the best aspect of the CarbonSaint™ website is that not only is the carbon footprint accurately measured, the Saint can actually make up for the carbon produced by purchasing carbon offsets from a carbon sequestering or remediation organization. The Saint may selects a carbon offset organization and enter their bank or credit card information in this section. A screenshot of the Carbon Offset page is shown on the following page

As you can see, a number of companies are displayed and each company shows its specific cost to offset a ton of carbon. The companies may be charities or commercial companies. The Saint may select one, several, or all of the companies. If the Saint selects several of the companies, then they are directed to another screen that has then choose percentages for each company.

Once the Saint has selected the offset company, the Saint can either purchase the offset manually be entering in the bank or credit card information, or can set up a recurring transaction. In the recurring transaction, the CarbonSaint™ website automatically calculates the Saint's carbon foot print each month and then automatically purchases a carbon offset for that footprint.

We feel that the CarbonSaint™ website offers unique value because we allow offset companies to effectively compete for dollars from Saints because the Saints will most likely select the offset company with the lowest cost per ton. This competition

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CARBON SAZNT  
SOLUTZON

ACCOUNT  
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ABOUT

SELECT

COMPANY

RATE

## REMEDATION

0	CARBON FUND. ORG	\$10/TON
0	ADVANCED TECH	\$8/TON

AD

## SEQUESTERING

0	IMPEL TEK	\$7.56/TON
0	GRADIO	\$9.15/TON

AD

0	ALL	\$8.68/TON
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## The CarbonSaint™ System

should encourage the offset companies to become more efficient so that they can receive a greater proportion of revenue. This competition should benefit everyone as it drives down the cost of carbon offset.

### **3.5 Forums**

The CarbonSaint™ website also includes forums where Saints can discuss specific topics and share tips for lowering their carbon footprints. Advertising is displayed in the forums to allow the forums to be revenue-producing.

### **3.6 Store**

All of the household monitoring devices are available for purchase through the CarbonSaint™ website store. In addition, other products that might be of interest to the Saints are also sold – such as hemp or carbon-free clothing and furnishings, books, other carbon conservation products, and even vacation and service opportunities.

## The CarbonSaint™ System

### **4.0 CarbonSaint™ Revenue Generation**

The CarbonSaint™ System includes several revenue channels to allow efficient and flexible revenue maximization during startup and operation phases. Revenue channels include:

#### **4.1 Sales At CarbonSaint™ Website Store**

All of the household and other items will be sold for a profit through the store on the website. However, during the startup phase, some products may be sold at cost to encourage early adoption.

We are also discussing using the cell phone business model wherein the phone is free if you sign up for a certain plan for a certain amount of time. For example, perhaps we will give a new user a free wireless trash scale if you will sign up for automated offset purchases for the three years.

#### **4.2 Transaction Processing Fees**

The transaction processing fees for the Saint's purchase of carbon offsets are expected to form the bulk of the long-term profitability of the site. We currently will adjust the cost per ton for offset to reflect a 5% processing fee to us. This fee may be raised or lowered depending on market conditions. The fee represents a subscription-based revenue stream and our goal will be to drive adoption of the automated offset purchase in order to maximize this stream and make it as solid as possible.



### **4.3 Advertising**

The CarbonSaint™ website will include advertising on all pages, including the front pages, forums, and accounts pages. Advertising is expected to represent a modest but resilient revenue stream. Current advertising rates are expected to be on the order of \$5 CPM which should lead to revenue of approximately \$30,000-\$50,000/month once we reach ramp-up. We also will be collecting e-mail and address information for further advertising and/or potential resale.

### **4.4 Charging Offset Companies To Be Listed**

We are also discussing charging offset companies to be listed on our site. We may choose to delay roll-out of this revenue stream until we are more established.

## **5.0 Other Patented Systems**

The CEO passed on your recommendation to search the PTO's website, so I did. I made a list of the patents below. The CEO says that all of these patents look pretty close to what we came up with. However, the CEO says that you are the best patent attorney around and that you will be able to find a way to get us our patent without infringing on these other patents.

### Patents:

US 2010/0001505 A1

US 2009/0240380 A1

US 2009/0210295 A1

US 2009/0125436 A1

US 2009/0313145 A1

US 2008/0306859 A1

US 7,643,908 B2

US 7,636,681 B2