

## Red Goes Green: The Philadelphia Phillies Sustainability Initiative.

Editor's Note: Businesses have an important role to play in furthering sustainability efforts, both through the products they produce and sell as well as through their own business practices. The triple bottom line, also known as people, planet, and profit, aims to expand the criteria for what constitutes a successful organization to include ecological, and social aspects as well as economic. Here we learn from Mary Ann Moyer, Manager of Marketing Initiatives for the Philadelphia Phillies baseball team how the Phillies have become a green organization and a leader in sustainability efforts among sports teams.

In April of 2008, the Phillies launched their "Red Goes Green" sustainability program in an effort to lead the clean energy movement in professional sports. For years the Phillies had been practicing many green initiatives, and have always tried to be a good corporate citizen, but it seemed like the right time to thoughtfully organize these practices under one umbrella. In turn, "Red Goes Green" was born. (Note: The Phillies team colors are red and white.)

In launching the initiative, the Phillies became the first Major League Baseball team to join the EPA's Green Power Partnership (GPP) program, a voluntary program that encourages organizations to buy green power as a way to reduce the environmental impacts associated with purchased electricity use. Starting in 2008, the Phillies have off-set 100% of their electricity usage by purchasing Green-e certified Renewable Energy Credits (REC's) representing electrical energy generated by wind and solar power. In 2012, the Phillies purchased more than 22 million kilowatt-hours of such credits, the equivalent of planting 100,000 trees.

As part of their REC portfolio, the Phillies were sponsors of the Keystone Solar Project (see Figure 1), developed by Community Energy in Lancaster County, Pennsylvania, that is the largest solar project in Pennsylvania. Rated at 6 megawatts it will produce approximately 7.5 million kWh of electricity annually, the equivalent of powering 950 homes or avoiding 4,200 tons of carbon dioxide emissions each year. By staying local, these REC purchases invest in jobs in the region.

Since its launch, the Red Goes Green sustainability program has grown substantially to include both facilities and community elements. The Phillies' efforts for a clean environment are in collaboration with Citizens Bank Park operators Global Spectrum and Aramark. When people think of the Phillies most often times images of the ballplayers come to mind, but the truth of the matter is these two other companies are an integral part of the Phillies "team". Aramark has national and local arrangements to re-purpose unused food, and similarly Global Spectrum created a list of what was being done in terms of sustainability at Citizens Bank Park and what *more* could be done.

The Red Goes Green sustainability program now includes:

- Recycling to reduce the amount of solid waste.
- Sending waste cooking oil to be recycled into biodiesel.
- Recycling light bulbs (see Figure 2).



**Citizens Bank Park**  
Lamp Recycling Statistics (weight)

	<u>2011</u>		<u>2012</u>	
	<u>Units</u>	<u>Weight</u>	<u>Units</u>	<u>Weight</u>
CFL	420	96.6 lbs	474	109.02 lbs
HID Lamps	479	191.6 lbs	91	36.4 lbs
Incandescent Bulbs	0	0 lbs	268	14.3 lbs
3'-4' Fluorescent Tubes	1270	635 lbs	654	327 lbs
8' Fluorescent Tubes	20	28 lbs	0	0 lbs
10' Fluorescent Tubes	40	64 lbs	0	0 lbs
Non-PCB Ballast	bulk shipment	480 lbs	bulk shipment	59 lbs
Alkaline Batteries	bulk shipment	50 lbs	bulk shipment	57 lbs
Lead-acid Batteries	N/A	0 lbs	N/A	885 lbs

Figure 1: Solar project sponsored by the Phillies.

Figure 2. Data on the Phillies light bulb recycling initiative.

- Purchasing carpet that has been produced in a carbon-neutral fashion and recycling old carpets through a reclamation process rather than putting them into a landfill.
- Purchasing reusable mugs and tumblers for front office staff in order to reduce waste and reduce cost.
- Partnering with the Pennsylvania Horticultural Society on their Plant One Million Campaign. For each home run hit by a Phillies player in 2012, a tree was planted in the greater Philadelphia region in an effort to restore the tree canopy cover. 158 “Phillies” trees were planted in November 2012. Through the partnership with PHS, the Phillies were also able to give away 250 free trees to Phillies fans on Earth Day.
- Hosting an annual eCycle event along with partner Waste Management. This event is free and gives fans the opportunity to drop off used electronics so that they can be recycled properly (see Figure 3).
- Phillies front office employees participating in an annual cleanup at FDR Park in South Philadelphia in partnership with the Fairmount Park Conservancy.



Figure 3. The Philly Phanatic helping out at the eCycle event.

Math plays an important role in the Red Goes Green program. Decisions on which elements to incorporate are based not only on environmental impact but on many others factors including cost and cost benefits.

For instance, within the past year, the Phillies installed over 180 LED lamps in the Hall of Fame – Cooperstown Hallway Gallery. In deciding to undertake this project, the cost of installing the new lamps

was weighed against the savings that would result from reduced energy use. The 180 LED lamps use 63,000kWh per year less energy than the old bulbs. (This energy savings is the equivalent of removing 9 cars from the road.)

The cost benefit factors can be dynamic or static based on the initiative. For instance, waste hauling and recycling/organics have dynamic factors which can save money or be an expense to the Phillies. The current agreement with the waste hauler includes a rebate for cardboard material. This rebate is based on the market value of cardboard. The higher value yields greater rebates, however, if we do not produce the volume, we do not reap the benefits of a high-yield rebate. During a Phillies game, we collect 2.5 tons of cardboard (on average). Extend this average over 83 games and the approximate total diversion of cardboard material will be in excess of 207 tons. Apply a rebate of \$25/ton to this total amount and the Phillies will realize a rebate of approximately \$5,000.

In addition to cardboard, the Phillies also divert other items from the waste stream into recycling. We constantly evaluate these efforts by collecting and analyzing data with the goal of continuing an upward climb in our diversion rate. In 2012, the Phillies produced a total of over 1200 tons of waste of which we recycled 205 tons of cardboard and commingled material, 17 tons of organic material (food), 70 tons of cooking grease and 6 tons of e-waste, carpet and scrap metal. In total, the Red Goes Green program accomplished a 19% diversion rate for the year (see Figure 4).

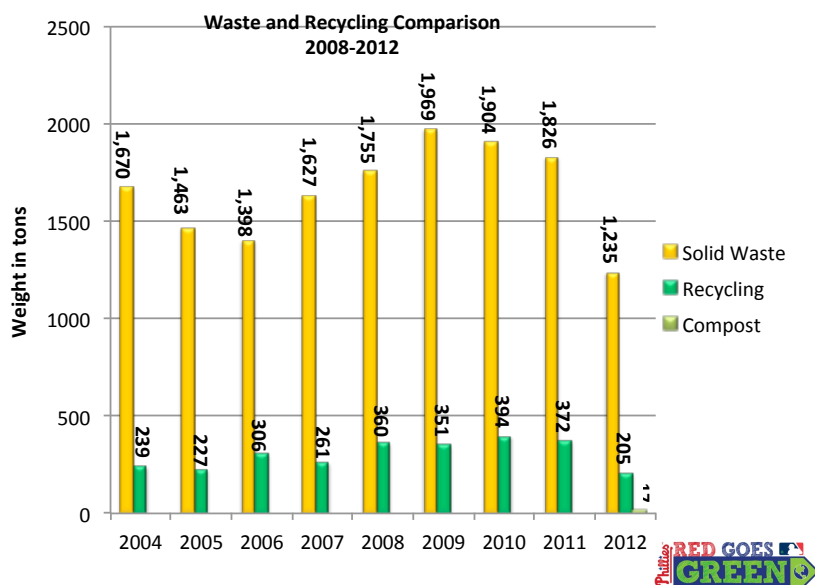


Figure 4. Waste and Recycling Comparison.

Not all of the mathematical analysis is carried out in-house. In carrying out our renewable energy off-set program, we have partnered with leading energy suppliers and consultant groups to best source the REC's earmarked for the Phillies. Before purchasing the REC's for the coming year, one must predict, based on the previous year's electrical usage results, how many kilowatt-hours of energy will be needed.

A great deal of analysis and evaluation accompany each project associated with the Red Goes Green program, the above is only a sample. While it's our ballplayers skill, hustle, and teamwork that help the Phillies win on the field, it's the math skills of our staff (see Figure 5) that contribute to a winning performance in Red Goes Green.



Figure 5. Members of the Phillies office start participating in a Red Goes Green initiative.