

# **Carbon Reduction Challenge**

By Sam Pak and the Southface Staff



### Introduction

Southface is a leader in promoting sustainability among homes, workplaces, and communities through education, research, advocacy, and technical assistance. A small scale iteration of the Georgia Tech Carbon Reduction Challenge was implemented internally at Southface to heighten staff awareness of the correlations that exist between carbon emission reductions and financial savings among competing reduction strategies presented by staff members, such as altering commute patterns, reducing meat and dairy purchases, reducing hot-water usage, and retrofitting residential lighting.

# **Opportunity**



Southface's leadership is evident through its high-level involvement in farreaching programs such as the EarthCraft Certification process, the Atlanta Better Buildings Challenge, and Grants to Green. Providing energy and water assessment services and tours of their highly efficient Eco-Office that showcases working, resource saving technologies, Southface is already a major driving force in reducing carbon emissions in Atlanta and the Southeast. However, the reduction of  $CO_2$  emissions is not often displayed near the forefront of these endeavors, but as an added benefit to energy, water, and financial savings. By piloting the Southface Carbon Reduction Challenge (CRC), the link between carbon reduction and cost-savings through efficiency modifications in light of foreboding climate forecasts can be further emphasized. Additionally, due to Southface's unique position of influence, a programmatic approach would have the potential to make the most lasting impact.

### **Overarching Strategy**

Establish a voluntary challenge among the staff at Southface to achieve a reduction of 1000 lbs of  $CO_2$  emissions in one month from July 14th to August 14th with a participation goal of 75% of the 53 staff members. Provide a structure for varying levels of participation. Create a competitive structure where the top reducers are rewarded with a prize (e.g. tickets and coupons to the Atlanta History Center.)



# **In-Challenge Strategies**

#### For Minimum Participation

Reductions by Tracking Staff Commute and Meat and Dairy Purchases: Survey staff to record baseline weekly emissions and spending from commuting and weekly emissions from meat and dairy purchases. Send out a weekly survey to keep track of staff commute and calculate reductions accumulated over a one-month period.



#### Beyond the Minimum Participation

Giving Climate Change the Cold Shoulder: For every cold shower taken and recorded via survey created by a Southface staff member, reductions from avoiding hot water use are calculated and added to company reductions.



**Residential Lamp Retrofits:** Replace 11 incandescent bulbs that are on 24/7 in a Southface staff's family member's home with LED bulbs.



(4) CO2 Useful Carbon Calculations sheet from GT Summer CRC Launch Resources. "Show Me the Money (and Carbor

### Results



#### Total reductions: 5505 lbs (TBD)

- From minimum participation: 470.56 lbs
- From Cold Showers: 37.44 lbs
- From Lamp Retrofits: 4997 lbs

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## **Moving Forward**

The Southface CRC will be used to create a framework for a CRC starter kit, which, in turn, could be taken to various organizations around metro-Atlanta to engage those who are willing to participate or host their own CRC. Organizations that coordinate STEAM student programs would be particularly effective.

With each organization administering the CRC, there is potential for exponential increase in carbon reductions year after year, according to the precedent set by the CRC at Georgia Tech. With the challenge disseminated across multiple programs, this effect could be multiplied many times over.









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