



BETTER BUSINESS CHALLENGE

Beer Run Sustainability Project

Global Sustainability, Fall 2011

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Name of Community Partner: Charlottesville Better Business Challenge

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ABSTRACT

The goal of the Better Business Challenge, a friendly competition among businesses to learn about different ways to incorporate sustainability practices, is for each business to recognize the current environmental impact of its consumption and performance, take steps towards reducing these impacts, and in doing so have a more positive impact on the local community. As consultants for Beer Run—a local restaurant, alcohol retailer, and our assigned business partner in the Better Business Challenge— we met with our contact, John Woodruff, for at least 5 hours each month in order to assist the restaurant in adopting sustainable business practices.

We believe that we have achieved our goal and laid a strong foundation for Mr. Woodruff and Beer Run to begin implementing sustainable practices next semester. We achieved our goals by carefully listening and adhering to our client's needs and ideas, maximizing the time we had with our client by coming prepared with questions and recommendations, and collaborating with our client on final solutions.

After highlighting potential areas to increase sustainable use (water, energy, transportation, purchasing, and leadership), researching possible solutions using the Better Business Challenge website, our fellow peers and outside resources, and benchmarking Beer Run against other restaurants involved in sustainable practices, we presented these potential options to John Woodruff. With our client, we decided on the final recommendations that he believed were the most feasible and beneficial to pursue (in terms of time, money and effort).

The following are our final recommendations to Beer Run in order for it to reduce the environmental impacts of its consumption and performance.

1. Install 4 faucet aerators to control water flow and decrease water use
 - Purchase the “.5 GPM Low Flow Dual-Thread Faucet Aerator” by Niagara Conservation given its \$4.50 each low price, its positive reviews, its availability both online and at stores nearby like Loews, and its specific use for kitchens
2. Replace its 65W flood light bulbs with 6W LEDs and its normal 60W light bulbs with 12.5W LEDs.
 - Buy the Encore Dimmable 6-Watt LED Flood and the Philips EnduraLED 12.5-Watt Dimmable Bulb due to quality and reasonable price
 - We believe that this implementation will save Beer Run \$510.51 in its first year
3. Work with Piedmont Environmental Council to participate in farm to shelf program
4. Apply to receive free installation of a bicycle rack from the City of Charlottesville and in doing so provide employees and customers options for alternative modes of transportation
5. Host a Better Business Challenge networking and brainstorming event
6. Distribute condensed version of the City of Charlottesville's idling policy to deliverymen

By implementing the following recommendations, Beer Run will receive at least an additional 14 points on the Better Business Challenge scorecard (we were unable to gain access to Beer Run's initial scoreboard because of problems with the password). In addition, we believe that a reduction of water and energy use will provide economic savings and that the bicycle installation, the local purchasing policy and the networking event will increase sustainability and environmental awareness among customers and similar businesses.

During this semester, we have researched creative opportunities for sustainability, collaborated with Mr. Woodruff to highlight the avenues he believes are most feasible and interesting, and presented attainable and concrete action items. We believe that we built a strong foundation for Mr. Woodruff and envision that he will implement the recommendations the following semester.

INTRODUCTION

The Better Business Challenge is a friendly competition among businesses to learn about different ways to incorporate sustainability practices into their core operations and gain recognition for their efforts towards environmentally conscious practices. The goal is for each business to recognize the current environmental impact of its consumption and performance, take steps towards reducing these impacts, and in doing so have a more positive impact on the local community. A points-based scorecard will allow businesses to measure their performance along six key areas: energy, water, transportation, waste, purchasing, and leadership/innovation.

Our responsibility is to serve as consultants for Beer Run, a local restaurant, alcohol retailer, and competitor in the Better Business Challenge. We will meet with our contact, John Woodruff, for at least 5 hours each month in order to answer any questions that he may have on sustainable business practices, how to implement them, cost savings and other issues that may arise. Our main task will be to assist the restaurant in its expressed areas of interest in sustainability such as energy, water, and waste reduction and to encourage and explore other sustainable options.

The stakeholders in this project will be Beer Run, its customers, and the Charlottesville community. There are certain, obvious benefits to both the business and the Charlottesville community in reducing waste, water, energy, and fuel use; however, intangible influences such as community support for green businesses and financial stimulation due to the increase in demand for green products and services may also be beneficial. This challenge may also increase sustainability and environmental awareness among customers and the Charlottesville community, both of which may begin to put pressure on businesses to reduce consumption and adopt these practices. The disadvantages that going green may present to the businesses are cost (sometimes) and the time and effort required be more environmentally friendly, although there will always be the moral satisfaction of being actively conscious of the impact that businesses have on the community and the world.

Beer Run is participating in the challenge not only because of the economic benefits of being environmentally friendly but also because it is interested ethically. The restaurant and retailer has already implemented a few sustainable practices including buying from local producers, recycling used cooking oil into biodiesel for pick up, and using semi-disposable plates that do not require washing to save energy and water.

OUR APPROACH TO INCREASE BEER RUN'S SUSTAINABILITY

Our main approach in aiding Beer Run will be to research new environmentally friendly practices that meet the criteria (mentioned below). We will use resources from the Better Business Challenge website, our fellow peers, and outside resources as well as try to benchmark Beer Run against other companies in the same industry that are involved in sustainable practices. Mr. Woodruff is committed to becoming more environmentally friendly, so hopefully our efforts will broaden his view on various green options that he may previously have not considered. As we investigate Beer Run's options, we expect the economic benefits of going green to catalyze its interest in other environmentally friendly practices. A successful Better Business Challenge may get Beer Run recognition and business, and it may encourage other local businesses to participate.

Our main challenge will be to explore a range of sustainable practices that meet the following criteria:

- Must conform with health department rules and regulations
- Must be cheap (cost is a big issue)

- Must be visually attractive (important in the restaurant industry)
- Must be time-sensitive (not require too much time to install or implement)

Main Problem: Find a cost-effective and efficient way to reduce water use, energy and waste.

Updated project timeline

Meetings	Research focus
10/4	1 st meeting with contact, John Woodruff. Discussed expectations, Beer Run as a business, main sustainability problems and general concerns about the challenge
10/12	Complete meeting log on google docs. 2 nd Meeting with John Woodruff. Discuss plan of action (expectations, needs, topics, research) for the rest of the semester.
10/13	Attend challenge mentor meeting: Present Beer Run plan of action for feedback
10/14	Research: Water
10/19	Submit project made on action item to BBC mentor for feedback
10/24	Final research/work on action item due to group
10/24-27	3 rd Meeting with John Woodruff to discuss progress status, research on water and opportunities for sustainable practices and points
10/31-11/4	Research: Energy, Waste Reduction and Purchasing
11/9	Complete meeting log on google docs
11/10	Attend challenge mentor meeting: discuss research on water and energy Confirm themes of biz needs and items needed
11/10-11	4 th Meeting with John Woodruff to discuss progress status, new research and opportunities for sustainable practices and points
11/16	Submit progress made on action item to BBC mentor for feedback
11/21	Compile research. Final research/work on action item to group
11/28-12/1	5 th Meeting with John Woodruff to discuss final research/work on all action items.
12/5-6	Contact biz - winter break, next contact, POC during dec/jan

FINAL ACTIONS TO INCREASE BEER RUN'S SUSTAINABILITY

After conducting our research and presenting alternatives to John Woodruff, together we decided on the final solutions he believed were feasible (in terms of time, money and effort) to pursue.

The following are our final recommendations to Beer Run in order for it to reduce the environmental impacts of its consumption and performance.

1. Install 4 faucet aerators to control water flow and decrease water use
 - Purchase the ".5 GPM Low Flow Dual-Thread Faucet Aerator" by Niagara Conservation given its \$4.50 each low price, its positive reviews, its availability both online and at stores nearby like Loews, and its specific use for kitchens
7. Replace its 65W flood light bulbs with 6W LEDs and its normal 60W light bulbs with 12.5W LEDs.
 - Buy the Encore Dimmable 6-Watt LED Flood and the Philips EnduraLED 12.5-Watt Dimmable Bulb in terms of quality and price
 - We believe by doing this, Beer Run will save \$510.51 in its first year
2. Work with Piedmont Environmental Council to participate in farm to shelf program
3. Apply to receive free installation of a bicycle rack from the City of Charlottesville and in doing so provide employees and customers options for alternative modes of transportation
4. Host a Better Business Challenge networking and brainstorming event
5. Distribute condensed version of the City of Charlottesville's idling policy to deliverymen

Purchasing low-priced faucet aerators will reduce water use

The following table outlines Beer Run's current water use problems, our preliminary solutions based on initial research, and our final solutions decided through collaboration and consultation with John Woodruff, Beer Run's manager.

Problems/ Restrictions	Preliminary Solutions	Final Solutions
<ol style="list-style-type: none"> Virginia Department of Health requires the water-intensive practices of cleanliness and sanitization <ul style="list-style-type: none"> Separate dump sinks and hand-washing sinks Requires high temp dishwashers to reach a certain level of cleanliness and sanitization for dishes The building is leased, not owned by Beer Run <ul style="list-style-type: none"> Landlord owns the common hall and bathroom, limits changes that can be made City water is used for irrigation of the few outdoor plants 	<ul style="list-style-type: none"> Install a low-flow faucet (hand-washing requires less water than other tasks) Buy a \$5 faucet aerator Look into using hand sanitizer instead of washing hands in certain cases Install a low-temp and low-flow industrial dishwasher Suggest to landlord to look into greener bathrooms Purchase no-water urinals for ~\$500 (saves up to 40,000 gallons/year) Purchase rain barrels ~\$50 	<ol style="list-style-type: none"> Conduct faucet assessment (see below for explanation) <ul style="list-style-type: none"> Recommend buying 4 faucet aerator Following preliminary solutions were not feasible (price) <ul style="list-style-type: none"> Rain barrels require new gutters Waterless urinals require more money and space than available Low-temp and low-flow dishwashers are expensive (costs ~\$3,000)

Beer Run currently has nine faucets, five of which must run water with high pressure due to of Virginia Department of Health Regulations. We recommend that Beer Run install low-faucet aerators on the remaining four sinks (**Exhibit 1**), which can cut up to 95% of water used in those sinks. We recommend buying the ".5 GPM Low Flow Dual-Thread Faucet Aerator" by Niagara Conservation given its \$4.50 each low price, its positive reviews, its availability both online and at stores nearby like Loews and its specific use for kitchens (**Exhibit 2**).

Given that the average use of a hand sink in a restaurant is 10 GPM, using the .5 GPM aerator results in a 95% water savings in the four compatible sinks. The monetary savings resulting in aerator use comes out to be 6.3625 cents per minute of use in each sink given the rates of water per volume in the City of Charlottesville. The average use of the sinks day to day is variable, but it will only take about 280 minutes of sink use to earn back the money spent on the aerators.

Replacing current bulbs will increase energy efficiency

The following table outlines Beer Run's current energy problems, our preliminary solutions based on initial research and our final solutions decided through a collaboration and consultation with John Woodruff, Beer Run's manager. Our final strategy for energy efficiency calls for switching to both CFL and LED (see below for lighting assessment).

Problems/ Restrictions	Preliminary Solutions	Final Solutions
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<ol style="list-style-type: none"> 1. Dimmable light bulbs are needed for safety and visual attractiveness 2. Small ice-maker requires employees to purchase bagged ice, wasting time, energy, and money 3. Patio is south-facing and gets hot during the summer <ul style="list-style-type: none"> • Cooling the patio is expensive and inefficient, but the customers' comfort is key 4. 2 instant water heaters are located away from the sinks and dishwashers <ul style="list-style-type: none"> • Energy wasted pumping water • Dishwashers use copious amounts of hot water 	<ul style="list-style-type: none"> • Switch from incandescent bulbs to more energy efficient LED or CFL bulbs that are dimmable (prices vary with size and type) • Research larger, more energy-efficient ice-makers • Install multiple ceiling fans to cool outdoor patio in an energy-efficient way (cost \$100-\$200) • Extend ceiling patio to provide shade to all tables and research better insulation to keep warm air out • Research industrial dishwashers that use less water and energy 	<ol style="list-style-type: none"> 1. Conduct lighting assessment (see below for explanation) <ul style="list-style-type: none"> • Recommend switching to CFL or LED bulbs 2. Researching efficient fan installation and use 3. Following preliminary solutions were not feasible (price) <ul style="list-style-type: none"> • Industrial dishwashers (costs ~\$3,000) • Extending patio • Insulation
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Beer Run has a huge opportunity to save money by going green with its lighting. The table below demonstrates the cost benefits of switching to CFL bulbs and/or LED bulbs. Replacing the 65W flood light bulbs with 6W LEDs and the normal 60W light bulbs with 12.5W LEDs will result in the maximum possible savings. The best bulbs in terms of pricing and customer review were the Encore Dimmable 6-Watt LED flood replacement, and the Philips EnduraLED 12.5-Watt Dimmable Bulb replacement (**Exhibit 3**). A total switch to these bulbs will result in a savings of \$510.51 per year taking both replacement costs and energy costs into account.

Inside Beer Run (**Exhibit 4**), there are two types of incandescent bulbs: 16 65W incandescent flood light bulbs, and 7 60W incandescent normal light bulbs. The graph gives an assessment of the money that could be saved using alternative bulbs instead of incandescent ones. Bulb power usage(P, in watts), bulb count(n), bulb cost(C, in dollars), and bulb lifetime(x, in hours) were used in this assessment using the equations below. These equations assume an approximate 100 hours of operation per week of each bulb for 50 weeks of the year.

$$\text{Kilowatt Hours Used By A Bulb Type Per Year} = P \cdot n \cdot (1 \text{ kW}/10^3 \text{ W})(100 \text{ hr/week})(50 \text{ weeks/yr})$$

$$\text{Replacement Cost Of A Bulb Type Per Year} = [C \cdot n(100 \text{ hr/week})(50 \text{ weeks/yr})]/x$$

We calculated the energy savings by finding the difference between the kilowatt hours used by the incandescent bulbs and the CFL and LED bulbs, and multiplying it by the cost paid per kilowatt hour by commercial businesses in Charlottesville (\$0.0809/kW*hr). The cost savings of the bulbs is calculated by subtracting their replacement cost per year from the incandescent bulbs' replacement cost, and the total savings is the addition of the cost savings to the energy savings.

Bulb Type	Bulb Power (W)	Bulb Count	Cost per Bulb (\$)	Lifetime (hours)	Power Usage (kW*hrs/yr)	Energy Savings (\$/yr)	Replacement Cost (\$/yr)	Cost Savings (\$/yr)	Total Savings (\$/yr)
Incndsnt Flood	65	16	2	1,500	5200	0	106.67	0	0
Incndsnt	60	7	.75	1,500	2100	0	17.50	0	0

Blub									
CFL Flood	15	16	6	10,000	1200	323.60	48.00	58.67	382.27
CFL Spiral Blub	15	7	16	10,000	525	127.42	56.00	-38.50	88.92
LED Flood	6	16	30	25,000	480	381.85	76.80	29.87	311.71
LED Bulb	12.5	7	25	25,000	437.5	134.50	53.20	-35.70	98.80

Total CFL Switch Savings: 471.19
Total LED Switch Savings 510.51

*Calculations assume 100 hours of operation per week, 50 weeks/year

**Calculations use \$0.0809/ kW*hour as stated on the City of Charlottesville's Website

Bicycle rack, idling policy, and local purchasing promote sustainability

The following table outlines more of Beer Run's current problems, our preliminary solutions based on initial research, and our final solutions decided through a collaboration and consultation with John Woodruff, Beer Run's manager. After researching and consulting with Mr. Woodruff, we decided against investing in compost. We initially looked into a partnership with Timbercreek organics, which collects pre-consumption compost for free, but after consulting with Mr. Woodruff his concerns were 1) post-consumption not pre-consumption make up the majority of the compost that Beer Run would use 2) several problems already with animals in the area. He concluded that he would prefer looking into other options.

Problems/ Restrictions	Preliminary Solutions	Final Solutions
1. Health Department regulations on composting	<ul style="list-style-type: none"> Invest in composting (option to reduce food waste) 	1. Timbercreek organics only collects pre-consumption compost <ul style="list-style-type: none"> Composting idea rejected (too many problems with animals)
2. Problems knowing what local farmers will produce and when (reliability)	<ul style="list-style-type: none"> Piedmont Environmental Council has a "Farm to Chef" directory Promote beers that are produced in environmentally conscious ways such as New Belgium (wind powered brewery) 	3. We emailed Piedmont Environmental and are waiting to hear back <ul style="list-style-type: none"> Local purchasing stimulates the local economy 4. Encourage Beer Run to advertise its local purchasing
4. No current policy	<ul style="list-style-type: none"> Research a car with better fuel economy (one company car) Encourage employees to arrive at work in energy-efficient ways such as carpooling or biking Encourage vendors to adopt the no idling policy since most of Beer Run's vendors deliver 	<ul style="list-style-type: none"> Distribute condensed version of City's idling policy to deliverymen (waiting for Lance Stewart) Apply to receive free installation of a bicycle rack from the City of Charlottesville (provide employees and customers alternative modes of transportation) (Exhibit 6) Host a Better Business Challenge networking and brainstorming event

The Piedmont Farmer-Chef Express program consists of a directory of restaurants and farmers interested in buying/selling locally grown foods. Being listed in the directory doesn't require that the restaurant purchase any minimum amount of local food, instead it allows local producers to know that Beer Run is interested in specific products. To be listed, a restaurant has to complete a short application, listing all of the specific

products that they might be interested in and any other parameters. Farmers also provide an extensive and detailed list of their products so that a restaurant (Beer Run) can see who grows what and contact the local producer. Beer Run is already a participant in the Piedmont Farmer-Chef Express program and plans to use this resource when feasible.

We recommend that Beer Run apply to receive a free installation of a bicycle rack from the City of Charlottesville and in doing so provide employees and customers options for alternative modes of transportation. Below is the city notice we received:

“The City of Charlottesville has a small number of bicycle racks they are looking to install near bus stops. They have not determined the exact locations yet. So, if you are a business within the City of Charlottesville, are within eyesight of a bus stop, and are interested in having a bicycle rack, contact the City and ask to be considered. Contact: Jeanie Alexander, City Traffic Engineer, [\(434\) 970-3182”](tel:4349703182)

We are still waiting on the idling policy from the City of Charlottesville in order to condense the policy into a single document and give it to John Woodruff to distribute among Beer Run’s deliverymen. On November 17th, Beer Run hosted a “Better Business Challenge Happy Hour” for fellow Challenge participants to network and brainstorm together (**Exhibit 7**). This event provided Beer Run with a leadership point on the scorecard.

Proposed solutions if implemented will give Beer Run at least 14 points

We were unable to gain access to the initial scorecard and therefore we can’t calculate exactly the progress that Beer Run has made in terms of points. We can calculate the number of points Beer Run will receive if it implements our proposed solutions. (**Note: We did not include those points that we believe Beer Run had already accomplished before starting the challenge.) If Beer Run implements our solutions, it will receive at least 14 additional points in the Better Business Challenge.

		Points
Water	• Met with staff to solicit ideas on water saving options	1
	• Inventory of water fixtures	1
	• Replace inefficient fixtures with low-flow varieties	1
Energy	• List energy conservation or energy efficiency action items	1
	• Conduct a lighting assessment	1
	• Use natural lighting whenever possible (outdoor patio)	1
	• Replace 50% of incandescent bulbs with CFLs or LEDs	1
Transportation	• Promote transportation options like biking	1
	• Install bicycle rack	2
	• Institute no-idling policy for delivery vehicles	1
Purchasing	• Select local sources when making purchasing decisions	1
Leadership	• Host a workshop	2

Total Points: 14

CONCLUSION

During our tenure as concierges for Beer Run, we have been brainstorming various options and finding affordable solutions for the restaurant and retail store to “go green” and to earn as many points as possible in the Better Business Challenge. In meeting with John Woodruff several times over the semester, we came up with feasible solutions for Beer Run to get involved in the challenge based on the restaurant’s potential

sustainable practice participation and its monetary and time-based limitations that John revealed. We submitted notes on the meetings to document our progress as our ideas synthesized, and there are only a few matters remaining to be tied up such as the specific light bulbs and faucet aerators that will be used, the distribution of the idling policy and the installation of the bicycle rack. We have submitted final sustainable solutions for Beer Run to put into practice, and we will be working with John during second semester to resolve any outstanding issues or questions.

FUTURE WORK

John will need to go by his restaurant supply retailer to find the properly sized faucet aerators that he needs for his sinks. He will also have final say on what bulbs he will use. We have made a blank lighting matrix that will allow him to put some numbers in to calculate his long-term savings. After that, we can help John install the new lights. We will also need to work with the City of Charlottesville in order to apply for the bicycle rack installation initiative. We will be in touch with John as part-time concierges second semester and help Beer Run rack up as many points as possible in the challenge.

LESSONS LEARNED

One barrier to success was accessing the scorecard, which resulted from a lost password. As a result, we were unable to track Beer Run's total number of points in the challenge. We still do not have access to the scorecard, but instead focused on measuring the number of points that could be achieved by implementing our proposed solutions. The time constraint (one semester) also inhibited us from beginning the implementation process. Instead of rushing into implementation, we decided the focus on building solutions that were comprehensive and well-researched and met the necessary criteria.

Our goal in the beginning of the semester was to answer any questions that Mr. Woodruff may have on sustainable business practices and eventually come up with sustainable business practices that are both feasible and beneficial for Beer Run to implement. We believe that we have achieved our goal and laid a strong foundation for Mr. Woodruff and Beer Run to begin implementation next semester. We believe we achieved our goals by carefully listening and adhering to our client's needs and ideas, maximizing the time we had with our client by coming prepared with questions and ideas, and collaborating with our client on final solutions. If we had to do it all again, we would have focused more on the scoreboard in order to propose more opportunities to receive points easily.

Lessons learned about change initiatives

Create a strong, tangible, and desirable vision to manage change. We presented our initial vision to John Woodruff of a sustainable business that limits its negative impact on the environment, but at the same time reaps the benefits of reduced energy and water costs and increased respect from the community. The vision served as the foundation of the change signaling where the reorientation was headed, aligning change initiatives with the desired end state, and energizing Mr. Woodruff and us.

The best way to communicate any change is face-to-face. Meeting with Mr. Woodruff prevented misinterpretation and allowed for an interactive discussion. Face-to-face communication also enabled us to show emotions and passion about the change initiatives, which in turn helped bring Mr. Woodruff more on board.

Communication and participation increase commitment to organizational change.

Creating open communication reduced uncertainty, strengthened Mr. Woodruff's sense of control and ownership, and built a trusting relationships.

Small wins help to gain momentum in a change. Small wins break down a high and intimidating goal into more reachable, attainable and smaller steps. This prevented feeling overwhelmed and helped to build confidence throughout the change initiative. We focused on one key area at a time with attainable targets and grounded within a complimentary time frame.

APPENDICES

Acknowledgement

We would like to thank the Better Business Challenge Team for their guidance throughout this semester, especially Tom Cassidy and Teri Kent from "Better World Better" for their support. We would also like to thank Harriet Jameson, our teaching assistant, who helped us with this project as well as to better understand the concept of sustainability through different lenses.

EXHIBIT 1: One of the four sinks recommended for installation of a faucet aerator.



EXHIBIT 2: Recommended faucet aerator brand given price, quality and use



Click for larger image and other views



0.5 GPM Low Flow Dual-Thread Faucet Aerator - Kitchen & Bathroom

by [Niagara Conservation](#)

★★★★★ (17 customer reviews) | Like (5)

Price: **\$4.49** & eligible for **FREE Super Saver Ship** on orders over \$25. [Details](#)

In Stock.

Sold by [Florida Eco Products](#) and [Fulfilled by Amazon](#). Gift-wrap available.

Want it delivered Thursday, December 8? Order it in the 8 hours and 2 minutes, and choose **One-Day Shipping** at checkout. [Details](#)

Ordering for Christmas? To ensure delivery by December choose **FREE Super Saver Shipping** at checkout. [Read more about holiday shipping.](#)

5 new from \$1.35

EXHIBIT 3: Recommended LED and CFL brands



Encore DP-DCSL3x2MR16A1 Dimmable MR16 3 by 2-Watt LED Bulb, Warm White, Dimmable

by [Encore](#)

★★★★★ (1 customer review) | Like (0)

Style Name:
Dimmable

List Price: ~~\$37.99~~

Price: **\$23.93** & eligible for **FREE Super Saver Shipping** on orders over \$25.

[Details](#)

You Save: **\$14.06 (37%)**

In Stock.

Sold by [ExpressMedia](#) and [Fulfilled by Amazon](#). Gift-wrap available.

Only 2 left in stock--order soon.



PHILIPS EnduraLED 12.5W A19 Dimmable Light Bulb

by [Philips](#)

★★★★★ (4 customer reviews) | Like (1)

Price: **\$37.95**

In Stock.

Ships from and sold by [BulbAmerica](#).

Ordering for Christmas? Based on the shipping schedule of BulbAmerica, choose **Standard** at checkout for delivery by December 24. See [BulbAmerica](#) shipping details.



GE 89623 Energy Smart 15-Watt Spiral Dimmable Compact Fluorescent Bulb

by [General Electric](#)

★★★★★ (8 customer reviews) | Like (1)

1 customer likes this.

Telling us what you like can improve your shopping experience. [Learn more](#)

Processing takes an additional 2 to 3 days for orders from this seller.
Ships from and sold by [Grady's Online](#).

Ordering for Christmas? Based on the shipping schedule of Grady's Online, choose **Standard** at checkout for delivery by December 24. See [Grady's Online](#) shipping details.

16 new from \$8.00



GE 20708 Energy Smart 15-Watt Indoor Floodlight R30 CFL, 65-Watt

by [General Electric](#)

★★★★★ (2 customer reviews) | Like (0)

List Price: ~~\$6.99~~

Price: **\$5.79**

You Save: \$1.20 (17%)

In stock.

Processing takes an additional 2 to 3 days for orders from this seller.
Ships from and sold by [Grady's Online](#).

Ordering for Christmas? Based on the shipping schedule of Grady's Online, choose **Standard** at checkout for delivery by December 24. See [Grady's Online](#) shipping details.

EXHIBIT 4: Lights to be switched to CFLs





EXHIBIT 5: Outdoor lights that already use energy efficient lighting



EXHIBIT 6: Outdoor space for a bicycle rack is available



EXHIBIT 7: Beer Run leadership event blurb



The Bottom Line

Your source for smart, sustainable, successful business



Come Join Us This Thursday Night!



Better Business Challenge Happy Hour

Thursday, November 17, 2011

5:30PM - 7:00PM

Beer Run

156 Cariton Rd.

Charlottesville, VA

The Challenge Team cordially invites you to our monthly Challenge Happy Hour! This will be held on **Thursday, November 17, 2011, from 5:30pm to 7pm at Beer Run. Enjoy a FREE appetizer while networking and brainstorming with fellow Challenge Participants. RSVP requested (not required) at info@cvilljobetterbiz.org!**