

clay fitness +
nutrition



CHARLOTTESVILLE AREA
BETTER BUSINESS CHALLENGE
SMART. SUSTAINABLE. SUCCESSFUL.

CHARLOTTESVILLE BETTER AREA BETTER BUSINESS CHALLENGE

Clay Fitness & Nutrition

Global Sustainability, Fall 2011
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TABLE OF CONTENTS

ABSTRACT

INTRODUCTION

ABOUT CLAY

THE CHALLENGE

energy

leadership

purchasing

transportation

PROJECT TIMELINE

BUDGET AND FUNDING

DOCUMENTATION

CONCLUSION

FUTURE WORK

LESSONS LEARNED

ABSTRACT

A micro-scale sustainable project within the local Charlottesville community is the Better Business Challenge (BBC). The overall goal of this project is to target businesses around the area and support them in efforts to improve sustainable business practices. Consequentially, these initiatives will increase the efficiency of involved businesses, raise awareness of sustainability, and unite the community. The BBC is a grant-funded program commenced by the joint effort of Local Energy Alliance Program (LEAP) and Better World Betty along with an array of sponsoring organizations. The challenge culminates in a friendly, points-based competition between participating companies to incorporate sustainable strategies into day-to-day business operations. Each business keeps track of its progress and points earned using a scorecard. At the end of the challenge period, the awards committee recognizes a variety of different accomplishments based on the points earned on a company's scorecard.

My community partner is the BBC and specifically Clay Fitness and Nutrition (Clay). The challenge has over 100 participating companies that all want to be involved, but some like Clay do not have the time or resources to dedicate to this initiative. In addition, the BBC does not have the manpower to dedicate to aiding all companies along through the challenge. Thus, my role is to connect with Clay and act as a representative of BBC in order to aid Clay through the process of integrating new sustainable strategies into its business operations. Furthermore, a key part of my job is to help my business partner fill out its scorecard and make sure new sustainable practices assimilate into the current structure and are manageable to implement. Paying close attention to the needs and goals of my partner company will be very important in creating a successful new strategy.

Clay is a gym and nutrition business and by joining the BBC, Clay aims to strengthen their client care and community dedication, as well as bolster their commitment to improving the environment and sustainable practices. Furthermore, Clay would like to get the most return on its investment possible and save money in the long term by integrating sustainable practices into its business strategy. As such, Clay is already very active in incorporating sustainable practices into their business. Most notable is their current practices in waste reduction and purchasing. Some examples of current practices would be using natural light as much as possible, installing low-flow toilets and showerheads, operating high efficiency washers, encouraging public transportation, recycling, using online resources, reducing water use, and joining the challenge networks.

Although Clay already incorporates many sustainable practices into its business, the staff at Clay would like to improve even more. The sky is the limit for Clay and I am here to help them fly. To get started, I have created a list of simple and easy action items to get the ball rolling with the Challenge. With momentum from these beginning projects, we will start tackling some of the harder more involved projects. The areas that Clay would like to focus the most attention are in energy and leadership. Clay plans to reduce their energy consumption by 15% and will need to make many changes to make that possible. I have made energy reduction my number one priority with Clay because energy has the greatest impact on the environment and has the potential to produce the greatest return in investment. Thus, coming up with a strategy to tackle Clay's energy reduction goals is my main concern at present. I also plan, however, to make improvements in all six categories of the challenge and have already made significant progress in energy and leadership.

To make the BBC a success to Clay beyond just the point certification, this whole process will need to be a very cooperative effort by Clay and me. We will need to work together to implement strategies and changes that work into current business operations and improve them. Thus, this challenge could have a lasting effect on Clay and help them to achieve their macro level outcome of enhancement. I am glad to be a key player in making that change possible.

INTRODUCTION

Sustainability is an ever growing popular global movement with projects on the macro scale, as well as a growing local movement within micro scaled localities, in particular those throughout the United States. An example of a micro project within the local Charlottesville community is the Better Business Challenge (BBC). The overall goal of this project is to target businesses around the area and support them in efforts to improve sustainable business practices. Consequentially, these initiatives will increase the efficiency of involved businesses, raise awareness of sustainability, and unite the community.

The BBC is a grant-funded program commenced by the joint effort of Local Energy Alliance Program (LEAP) and Better World Betty along with an array of sponsoring organizations: The City of Charlottesville, Albemarle County, University of Virginia Darden School of Business, James River Green Building Council, University of Virginia Credit Union, Colonial Webb, T&N Printing, Charlottesville Regional Chamber of Congress, 106.1 The Corner, Dominion, Piedmont Realty & Construction, and Van Der Linde Recycling & Container Rentals. The challenge culminates in a friendly, points-based competition between participating companies to incorporate sustainable strategies into day-to-day business operations. Each business keeps track of its progress and points earned using a scorecard. At the end of the challenge period, the awards committee recognizes a variety of different accomplishments based on the points earned on a company's scorecard. These awards include Achievement Awards, Better Business Champions, KiloWatt Crackdown Award, Biggest Loser Award, Green Leader Award, and Innovator Award. Furthermore, the Achievement Awards are broken into three categories: Certified (40 points), Certified Plus (100 points), and Winner's Circle (150 points).

While micro initiatives like the BBC will not have a huge impact on the global issue of sustainability, they are a step in the right direction. Recognizing that an individual or small business makes daily choices that relate to sustainability is a huge success in itself. Too many times businesses lose sight of big picture issues, such as sustainability, and make decisions without even taking them into consideration. Continual awareness and action towards regularly choosing sustainable means, however, can maybe one day amount to a positive world macro level outcome and a macro level improvement for a single business.

problem definition

My community partner is the BBC and specifically Clay Fitness and Nutrition (Clay). The challenge has over 100 participating companies that all want to be involved, but some like Clay do not have the time or resources to dedicate to this initiative. In addition, the BBC does not have the manpower to dedicate to aiding all companies along through the challenge. Thus, my role is to connect with Clay and act as a representative of BBC in order to aid Clay through the process of integrating new sustainable strategies into its business operations. Furthermore, a key part of my job is to help my business partner fill out its scorecard and make sure new sustainable practices assimilate into the current structure and are manageable to implement. Paying close attention to the needs and goals of my partner company will be very important in creating a successful new strategy.

ABOUT CLAY

Clay is a gym and nutrition business that is unlike regular gyms. At Clay, customers are free to make their own schedules and come when they can without spending unnecessary money during the times when they cannot come. Furthermore, Clay looks beyond just a customer's current physical health and offers "innovative programs and classes that help educate the community, motivate people to make lasting change, and help them integrate these changes into their lives" (ClayFitness.net). Clay deeply cares about its clients and strives to build a relationship with them that will carry into the future. By joining the BBC, Clay

aims to strengthen their client care and community dedication, as well as bolster their commitment to improving the environment and sustainable practices. Furthermore, Clay would like to get the most return on its investment possible and save money in the long term by integrating sustainable practices into its business strategy.

As such, Clay is already very active in incorporating sustainable practices into their business. Most notable is their current practices in waste reduction and purchasing. Clay is very proactive with encouraging waste reduction practices, such as using cloth towels instead of paper towels and glass cups instead of paper or Styrofoam. Purchasing green products and products produced by green companies is very important to Clay already and surpasses the importance of least cost products. Clay even has its own cleaning supplies that it makes the cleaning staff use and green shower soaps for the customers to use. Buying local is also an unstated policy for the staff at Clay. Moreover, Clay also incorporates many other sustainable practices within the other four categories of the BBC: energy, transportation, water, and leadership. Some examples of current practices would be using natural light as much as possible, installing low-flow toilets and showerheads, operating high efficiency washers, encouraging public transportation, recycling, using online resources, reducing water use, and joining the challenge networks.

THE CHALLENGE

Although Clay already incorporates many sustainable practices into its business, the staff at Clay would like to improve even more. The sky is the limit for Clay and I am here to help them fly. To get started, I have created a list of simple and easy action items to get the ball rolling with the Challenge. With momentum from these beginning projects, we will start tackling some of the harder more involved projects.

energy

The areas that Clay would like to focus the most attention are in energy and leadership. Clay plans to reduce their energy consumption by 15% and will need to make many changes to make that possible. I have made energy reduction my number one priority with Clay because energy has the greatest impact on the environment and has the potential to produce the greatest return in investment. Thus, coming up with a strategy to tackle Clay's energy reduction goals is my main concern at present. To help come up with an energy strategy, I plan to use LEAP's free software, a company equipment inventory, and the results of a staff thermal comfort survey to create a benchmark. This survey is attached to the report in Appendix F and will be sent out to the staff within the coming month. The current strategy, however, centers on exploiting the natural resources available to Clay.

One of these resources is the huge windows that line the east side of the building. The plan is to use natural light as much as possible and consciously make an effort to turn off the lights. In order to help with this effort, Clay created reminder signs that say "please turn off the lights" and placed them in areas where there are light switches. Moreover, Clay also plans to install motion sensors in the storeroom and one bathroom to start with and use as an experiment.

Clay is also interested in phasing out all of their incandescent lights. In Appendix C, I have compiled an inventory of lighting fixtures in the building and conducted a cost analysis of switching to CFL or LED bulbs. The following tables summarize the key results of the study, which show that the return on investment for CFL and LED bulbs is well worth the higher initial cost. For one year alone, CFL or LED lights could save Clay approximately \$300. Furthermore over the course of ten years, these lights can save approximately \$3,000. While the ultimate goal is to switch all the lights to CFL or LED, currently Clay has switched the four bulbs in the chandelier of the gym area to CFL bulbs. Since this chandelier is on all hours of the day, the switch alone should save Clay \$75.00 for the first year.

Electricity Output and Cost Comparison

Space	Fixture	kWh/Year			Total Cost/Year		
		Incandescent	CFL	LED	Incandescent	CFL	LED
Gym Area	Chandelier	2102.4	490.6	420.5	\$99.66	\$23.25	\$19.93
	Overhead Lights	5267.0	1296.5	1053.4	\$249.67	\$61.46	\$49.93
	EXIT Signs	657.0	446.8	52.6	\$31.14	\$21.18	\$2.49
Storeroom	Overhead Light	355.9	87.6	71.2	\$16.87	\$4.15	\$3.37
Bathrooms	Light/Fan Combo	584.0	134.3	105.1	\$27.68	\$6.37	\$4.98
	Single Light	350.4	81.8	70.1	\$16.61	\$3.88	\$3.32
TOTAL		9316.6	2537.5	1772.8	\$441.64	\$120.29	\$84.04

Total Cost Comparison

Light Type	1 Year	3 Year	5 Year	10 Year	25 Year
Incandescent	\$414.46	\$1,243.38	\$2,072.30	\$4,144.61	\$10,361.52
CFL	\$103.35	\$310.04	\$516.74	\$1,033.47	\$2,583.69
LED	\$103.37	\$310.11	\$516.84	\$1,033.69	\$2,584.22

Total Savings Comparison

Light Type	1 Year	3 Year	5 Year	10 Year	25 Year
Switch to CFL	\$311.11	\$933.34	\$1,555.57	\$3,111.13	\$7,777.83
Switch to LED	\$311.09	\$933.28	\$1,555.46	\$3,110.92	\$7,777.29

In addition to focusing on lights, Clay plans to install programmable thermostats. There are three air units within the gym space and each existing thermostat will be replaced with a programmable one. These thermostats have already been purchased and just need to be installed by an electrician. According to the U.S. Department of Energy, "you can save around 10% a year on your heating and cooling bills by simply turning your thermostat back 10°–15° for eight hours" (www.energysavers.gov). To estimate the savings Clay could earn by using programmable thermostats and saving 10% yearly, I performed a cost analysis using the electricity bill from October and Dominion's rate information available online. For the past ten months, Clay would have saved approximately \$425.85 by using programmable thermostats instead of the existing ones. The following table summarizes the savings per month; calculations and assumptions can be found in Appendix F.

Programmable Thermostat Savings

Month	Year	kWh	Total Current Charges	Total Minus 10%	Savings
Jan	2011	2616	\$255.31	\$229.78	\$25.53
Feb	2011	4520	\$409.52	\$368.56	\$40.95
Mar	2011	3543	\$330.39	\$297.35	\$33.04
Apr	2011	3266	\$307.95	\$277.16	\$30.80
May	2011	3725	\$345.13	\$310.61	\$34.51
Jun	2011	5731	\$629.32	\$566.39	\$62.93
Jul	2011	5604	\$615.46	\$553.92	\$61.55
Aug	2011	5380	\$591.02	\$531.92	\$59.10
Sep	2011	4199	\$462.18	\$415.96	\$46.22
Oct	2011	3319	\$312.24	\$281.02	\$31.22
				Total Savings	\$425.85

As a longer term goal, which I plan to pursue next semester, I will be researching the advantages and cost of solar shades. Looking at the electricity bill in Appendix D, solar shades would be extremely beneficial to cutting down energy consumption because in the winter you could use the light and natural heat of the sun to heat the building while in the summer you shut out that natural heat to cool the building. As a dream goal, I would like to use the stationary bikes to generate renewable power for the gym. I will also be researching this strategy next semester.

leadership

Next, I would like to focus on the leadership category because I feel like this category resonates with Clay's mission. Clay strives to be a leader in the community in which people can look up to and place their trust. By reaching out to the community and showing their commitment to the BBC, Clay can strengthen their reputation within the community and customer loyalty base. Clay's green team leader is Millie Winstead and she has been very active in making all these sustainable initiatives happen. To advertise Clay's participation in the challenge, Winstead included a blurb about the challenge in the latest e-newsletter, shown below. Winstead is also planning to post the BBC certificate of participation and sticker in the gym. Furthermore, Clay plans to make a video and take picture once any action items are completed. With this media, Clay wants to advertise on the BBC website and their own. Lastly, Winstead has already been very active in the BBC events and plans to attend many more.

Newsletter Blurb

We are Going Green(er)



Clay Fitness + Nutrition has joined the Charlottesville Better Business Challenge with over 100 other businesses and organizations in our community. This is a friendly competition where everyone wins! We, along with our fellow competitors, have made a commitment to making changes in the way we light, heat/cool, purchase, clean, dispose, transport, and even communicate within our businesses.

You can help! Please remember to turn off lights, bring your reusable water bottles, carpool or ride your bike to the studio, and support the other challenge participants. Check out the challenge at CvilleBetterBiz.com and Go Green!

purchasing

Clay is already very successful in the purchasing sector of business. They make it a point to select sustainable vendors and products. They even supply their own green cleaning supplies for the cleaning staff to use. They have also eliminated the use of Styrofoam or paper products and supply glasses for clients to use for water. Furthermore in Belmont, Clay recently moved into their newest and main building, which they had to renovate before occupying. During the renovation, Clay paid particular attention to choosing sustainable products. For example, all the paint is low-VOC and the couches are made of organic material.

Although Clay is already fairly sustainable, they still were interested in seeing where all their money on purchases was going. Thus, Winstead created a purchasing inventory, which is on the following page. After looking at this analysis, we saw that there is not much more room for improvement on purchases; however, we will still be keeping minds open and brainstorming ideas to make purchasing more sustainable.

Clay Fitness Purchasing History						
	B, B & B	Whole Foods	Integral Yoga	Kroger	K-mart	Target
Shower supplies						
shampoo, bath gel	59.23	93.6				
	102.81	23.97				
	7.49					
shower curtain	16.99					
Paper supplies						
facial tissues		5.96	10.36			
		8.37				
bath tissue		5.98				
		11.54				
		11.54				
Studio supplies						
spray bottles	19.96					
towels	124.53					
towels	189					
ibuprophen				2.39		
items for 1st aid Kit					49.79	
Miscellaneous						
trash can	69.99					
bamboo cabinet	67.19					
laundry detergent		11.54		1.35		
		11.54				
broom/mop holder					10.25	
tool for bikes					12.59	
TOTALS	657.19	184.04	10.36	3.74	72.63	0

transportation

Clay does not have a fleet or company cars; thus, many of the transportation credits were not applicable. One thing, however, that Clay would like to focus on is encouraging alternative modes of transportation. One big way to do this is to install a bike rack close to the building. Luckily for Clay, the town of Belmont is preparing to make changes to Hinton Avenue, which is the main street Clay is located. In an email to the town it says that

“HAVING A PEOPLE/PARK AREA ON THE NORTH SIDE OF THE 800 BLOCK OF HINTON (FROM DOUGLAS AV CORNER WEST TO THE NEW T-INTERSECTION) RATHER THAN PARKING (WHICH IS FELT TO BE DANGEROUS, LIKE THE PARKING IT IS PROPOSED TO REPLACE), REMOVE PROPOSED 3 PARALLEL SPOTS IN FRONT OF CLAY FITNESS, WIDEN SIDEWALK AT LA TAZA AND CLAY, CONSIDER PUBLIC BENCHES

These parking spaces will be removed and the area redesigned to accommodate landscaping, a wider sidewalk, bike racks and benches (if possible). However, it was very clear at the beginning of this process that parking was not to be removed.”

These changes are illustrated on the map below and will hopefully become a reality. Hopefully once the bike rack is installed, Clay will give a short-term incentive to clients who ride their bike to class. This would give the bike rack and their participation in the BBC lots of attention.

Belmont – Hinton Road Changes



To make the BBC a success to Clay beyond just the point certification, this whole process will need to be a very cooperative effort by Clay and me. We will need to work together to implement strategies and changes that work into current business operations and improve them. Thus, this challenge could have a lasting effect on Clay and help them to achieve their macro level outcome of enhancement. I am glad to be able to be a key player in making that change possible.

PROJECT TIMELINE

Day	Event	Notes
09/21/2011	Project Definition Due	
10/05/2011	Conceptual Design Due	
10/9/2011	1 st Meeting with Clay	
11/2/2011	Preliminary Report Due	
11/9/2011	Second Meeting with Clay	Figure out the next steps
11/14/2011-11/20/2011	Perform First Action Item	Take pictures and document on website
11/21/2011	Final Research/Work on Action Items Due to Teri	
11/28/2011-12/4/2011	Perform More Action Items	
12/5/2011	Third Meeting with Clay	Pursue action items further
12/10/2011	Final Report Due	
12/12/2011	Final Presentation	

BUDGET AND FUNDING

The money for all these projects is coming from Clay and the sole decision lies with the owner, Hyman. Since business is growing right now there is quite a lot of funding available for possible projects. In order to decide which projects to pursue, I will be creating a life-cycle cost analysis for the different options.

DOCUMENTATION

Documentation for this project is a compilation of different forms of communication. Firstly, this report is one main form of documentation. Any new policies and procedures that Clay implements will be written into their business documents and exist there as documentation. Lastly, a very important form of documentation is the Scorecard. The current scorecard is in the pages that follow in Appendix B. This scorecard is an excel spreadsheet, which keeps track of how many points Clay is hoping to achieve. The final version will be an online version that Clay submits to the BBC for recognition. In the following scorecard, the points already earned are in black while the points planning to earn are in red. Furthermore, the last column contains notes about the different action items.

DISSEMINATION

Dissemination will be handled through the leadership part of the Challenge. This includes pictures and videos on Clay's and the BBC's websites. Furthermore, incentives will also be a great form of publicity. Lastly, the BBC's social network and events are a great way to get Clay's name out into the public.

CONCLUSION

While micro initiatives like the BBC will not have a huge impact on the global issue of sustainability, they are a step in the right direction. Recognizing that an individual or small business makes daily choices that relate to sustainability is a huge success in itself. Too many times businesses lose sight of big picture issues, such as sustainability, and make decisions without even taking them into consideration. Continual

awareness and action towards regularly choosing sustainable means, however, can maybe one day amount to a positive world macro level outcome and a macro level improvement for a single business.

FUTURE WORK

Clay and I have many plans for the future that will pick back up next semester after winter break. Appendix B shows the scorecard for Clay and in the scorecard the green boxes signify points we are currently pursuing, yellow boxes signify points we plan to implement, and blue boxes signify points we already have earned. Next to the point columns, there is a column for comments and that column explains a majority of the future plans for Clay. Although the semester is ending, I am very excited to continue this project and add to the sections of this report that have not been addressed yet.

LESSONS LEARNED

One large barrier to success of this project was time. This semester was very busy for me because of classes and a part-time internship; thus, finding time to meet with my business partner was quite difficult and I would have liked to have more in-person meetings. Furthermore, the Global Sustainability class itself demanded a lot more work besides just the project. I would have appreciated more time to focus on this project and giving my all to helping Clay. In some ways I feel that I did not do as much as I wanted and almost let down the BBC. Hopefully, next semester will be much less hectic and I will be able to focus more time on improving Clay's sustainable practices. This project, however, has been a great extension of the class lectures and helped bring those lectures into a real world framework.

One important thing I will take away from this project is that change is not easy. You may have good ideas and strong beliefs, but in this society you need much more. One huge determining factor is money. You may have these ideas, but you need money to fund them. I have learned to search for the resources that are available and reach out to local organizations. Finally, never give up.

APPENDIX A

bibliography

http://www.energysavers.gov/your_home/space_heating_cooling/index.cfm/mytopic=12720

<http://www.dom.com/index.jsp>

APPENDIX B

scorecard

Energy	Points Achieved	Points Possible	Notes? Comments?
GET READY			
Have you collected one year's worth of utility bills and used LEAP's free software to benchmark energy use?	2	2	Very interested in this!
Have you had LEAP give a free presentation about energy use to your company?	0	2	Didn't want to do this because staff already educated
GET SET			
Have you established a company energy reduction goal (5%, 10%, 15%, etc.)?	2	2	No definitive goal set yet, but have talked about it
GO!			
Have you conducted an indoor comfort survey w/ staff and discussed results?	1	1	Survey Monkey survey to send out to staff
Have you made a list of company equipment you have such as heating, cooling and ventilation mechanicals, computer equipment, appliances (should include age and relative condition)?	1	1	Don't have that much equipment and would be very easy to compile in excel
Have you developed a list of energy conservation or energy efficiency action items?	1	1	
Have you conducted a lighting assessment?	1	1	REALLY WANTS THIS!
Do you use natural lighting whenever possible?	1	1	Already do this to the max
Do you make use of task lighting to minimize overhead room lighting?	0	1	N/A
Have you installed motion sensors for your lighting?	1	1	Thinking of installing these in the bathroom - also had an idea about a control switch that turns all the lights off
Have you replaced 50% of incandescent light bulbs with CFLs or LEDs?	1	1	WANTS TO DO THIS!!
Have you put exterior lighting on timers or photosensors?	0	1	Have none
Have you set thermostats to recommended EnergyStar settings?	1	1	
Have you set water heaters at 120 degrees and added an insulation blanket?	1	1	
Have you replaced EXIT signs that use older incandescent or compact fluorescent (CFL) technology with ultra-low energy use (LED) EXIT signs?	1	1	Very interested
Do you use window blinds, curtains, solar shades or solar window screens to decrease heat in the summer and increase heat in the winter?	1	1	Really good idea for them and want to pursue it further
Have you trained staff on ways to reduce baseload energy use from lighting, appliances, computers, etc?	1	1	Already done this - staff is very educated
Tell us what else you've done:	1	1	Programable thermostats
Tell us what else you've done:		1	
GO THE DISTANCE!			
Have you purchased renewable energy credits for some portion of your business' electricity usage?	0	3	
Have you obtained a 3rd party professional energy audit?	5	5	Thought this would be an awesome thing to have
Have you had a professional review your building systems to ensure they are operating as designed and programmed? (i.e. conducted retrocommissioning?)	5	5	
Have you installed a renewable energy technology such as solar, geothermal, wind?	0	10	Thinking about getting the bikes to generate power - big goal
Have you achieved 15% reduction in energy use through improvements?	10	10	REALLY REALLY WANT TO GET HERE
SUBTOTAL	37	55	
BONUS! Measure and Report - Have you achieved ENERGY STAR Certification for your building?	0	10	
SUPER SUBTOTAL	37	65	

Transportation	Points Achieved	Points Possible	Notes? Comments?
GET READY			
Have you established or reviewed one to three years' worth of vehicle maintenance records to confirm routine upkeep (contributes to optimal performance and fuel efficiency)?	0	2	N/A
Have you benchmarked transportation costs/fuel use based on fuel purchase records?	0	2	N/A
GET SET			
Have you established a company fuel reduction goal (5%, 10%, 15%, etc.)	0	2	N/A
GO!			
Have you met with staff to solicit ideas on reducing fuel costs or improving transportation options?	1	1	
Have you conducted an inventory of company vehicles to identify opportunities for replacing low MPG with more efficient ones?	0	1	N/A
Does your company promote transportation options including public transportation, biking and walking?	1	1	The bike or walk incentive!
Does your company regularly check fleet tire pressure for optimum fuel performance?	0	1	N/A
Do you require selection of fuel efficient rental vehicles?	0	1	
Do you integrate online, video and teleconferencing into meetings?	1	1	
Have you instituted a no-idling policy for company vehicles, delivery vehicles (i.e. vehicles delivering goods to your company) and/or customers?	1	1	Water delivery
Have you instituted a telework policy?	1	1	newsletter, etc.
Do you schedule deliveries for off-peak hours or bundle deliveries or services to maximize efficiency?	1	1	
Has your company participated in Clean Commute Day?	1	1	
Tell us what else you've done:	1	1	Bike to class incentive?
Tell us what else you've done:		1	
GO THE DISTANCE!			
Have you installed bicycle racks near office entrances?	2	2	Really interested in installing these!
Have you replaced old or inefficient vehicles in your fleet with high MPG, alternative fuel, or alternative fuel or technology vehicles?	0	10	N/A
SUBTOTAL	10	30	
BONUS! Measure and Report - Demonstrate 15%+ reduction in fuel use or increase in employee alternative travel	10	10	
SUPER SUBTOTAL	20	40	

Water	Points Achieved	Points Possible	Notes? Comments?
GET READY			
Have you reviewed one year's worth of water utility bills and established a baseline of your water use?	2	2	Needs to find them
Have you input one year's worth of utility bills into EPA's Portfolio Manager (free software) to benchmark your company's water use?	2	2	Wants to do this
GET SET			
Have you established a company water reduction goal (5%, 10%, 15%, etc.)?	2	2	Talked about it but no definite goal yet
GO!			
Have you met with staff to solicit ideas on water saving options?	1	1	Talk about it a lot
Have you conducted an inventory of water fixtures?	1	1	Yes, but not written down yet - use excel
Have you minimized irrigation of lawn and landscape areas?	0	1	Air plants and thinking about small cistern for plants downstairs
Have you planted drought-tolerant plants?	1	1	Air plants and other small ones that don't need much water
Do you irrigate during cooler times of day?	0	1	N/A
Do you use drip irrigation?	0	1	N/A
Have you detected and repaired plumbing leaks?	1	1	Yes, do that already
Have you replaced inefficient fixtures with low-flow varieties?	1	1	Low-flow toilets and washers and shower heads (2.0 GPM) - wants to maybe install sink faucet
Have you installed no touch sensor water fixtures?	0	1	N/A
Do you collect and use rainwater?	0	1	Thinking about small cistern for plants downstairs
Do you have signage to encourage employees and clients to conserve water?	1	1	
Do you have guidelines for reducing water use when washing fleet vehicles?	0	1	N/A
Tell us what else you've done:		1	
Tell us what else you've done:		1	
GO THE DISTANCE!			
Have you installed a raingarden and/or biofilter?	0	5	
Have you installed a green roof?	0	10	
SUBTOTAL	12	35	
BONUS! Measure and Report - Reduce 15%+ from baseline	10	10	HOPEFULLY!
SUPER SUBTOTAL	22	45	

Waste Reduction	Points Achieved	Points Possible	Notes? Comments?
GET READY			
Have you reviewed one year's worth of your trash bills and recycling amounts to establish a baseline?	2	2	Needs to track them down
Have you identified your waste streams?	2	2	Thinks this would be interesting
GET SET			
Have you established a company waste reduction goal (5%, 10%, 15%, etc.)?	2	2	Talked about it but no definite goal yet
GO!			
Have you met with staff to solicit ideas on reducing waste?	1	1	
Does your company recycle?	1	1	think so? Check!
Have you standardized the practice of double-sided printing and/or copying?	1	1	
Do you have newsletters, reports, paycheck vouchers, etc. available online?	1	1	Newsletter
Have you converted from styrofoam and single-use containers to reusable items?	1	1	glass cups!
Do you donate used electronics or use e-waste recycling options?	1	1	
Do you minimize water bottle usage by providing a water cooler or filtered water pitcher?	1	1	
Do you purchase supplies in bulk as opposed to single serving products?	1	1	Talked about this - think some improvement could be made but do this for water
Do you offer discounts or rebates for customers who bring their own packaging (e.g. bags, cups)?	2	2	Thinking about it
Have you implemented a composting program?	0	2	
Have you implemented digital document storage to reduce paper use?	5	5	Thought about doing bills online...
Tell us what else you've done:	1	1	Uses all cloth towels - have no papertowels
Tell us what else you've done:		1	
GO THE DISTANCE!			
Have you made all office events low- to zero-waste?	10	10	Think this would be cool - especially with the nutrition seminars
Measure and Report - Divert 20%+ from baseline.	10	10	REALLY WANT THIS!
SUBTOTAL	42	45	
BONUS! Measure and Report - Divert 20%+ from baseline		10	
SUPER SUBTOTAL	42	55	

Purchasing	Points Achieved	Points Possible	Notes? Comments?
GET READY			
Have you reviewed one year's worth of purchasing records to inform future purchasing strategies/decisions?	2	2	excell file
Do you select vendors based on criteria regarding product sustainability and/or sustainable business practices?	2	2	
GET SET			
Have you established a company sustainable procurement goal (25%, 50%, etc.)?	2	2	Talked about it but no definite goal yet
GO!			
Does your company prioritize selection of products and supplies that incorporate recycled materials (e.g., recycled content carpet, acoustic tiles, garbage bags, etc.)?	1	1	
Do you purchase computers and similar electronic equipment EPEAT certified?	?	1	? Check
Have you established a company sustainable or local products purchasing policy?	1	1	Yes but not in writing yet
Does your purchasing policy specify selection of water efficient plumbing fixtures (i.e. WaterSense certified)?	1	1	
Do you use at least 30% or more post-consumer recycled printer/copier paper?	0	1	?
Do you select recycled-content paper products (e.g. envelopes, paper towels, toilet paper, filing folders, notepads, etc.)?	0	1	?
Have you eliminated use of single-serve bottled water (e.g. by installing a water filter or providing refillable water bottles to all employees)?	1	1	
Have you installed air filters (in the HVAC system or freestanding) that trap airborne pollutants?	1	1	
Do you use low- or no-VOC paints, finishes, and adhesives?	1	1	Yes did in renovation!
Do you use "greener" cleaning products (e.g. GreenSeal or EcoLogo)?	1	1	
Do you pick GreenGuard materials and products (e.g. carpet, textiles, etc.)?	1	1	
Do you regularly select local sources when making purchasing decisions for goods and services, including food?	1	1	
Tell us what else you've done:		1	
Tell us what else you've done:		1	
GO THE DISTANCE!			
Do you use integrated pest management on grounds?	5	5	Yes?
SUBTOTAL	20	25	
BONUS! Measure and Report - Source 25%+ from locally/regionally (w/in 150 mi)		10	Think could get this!
SUPER SUBTOTAL	20	35	

Leadership	Points Achieved	Points Possible	Notes? Comments?
Tell the Story - Celebrate your participation and your successes			
Have you appointed an internal "green team" or green team leader to champion the company's sustainability efforts?	1	1	Millie
Have 50% of your employees signed up for Better World Betty's and LEAP's e-newsletters?	0	1	Not sure?
Have you advertised the company's green practices to clients and prospective new employees?	1	1	Really want to do something - maybe suggestion box?
Have you joined the Challenge's social networks?	2	2	
Have you shared sustainability goals, policies and practices with staff and customers?	1	1	
Take Action - Be a Leader by empowering others to be successful			
Have you hosted one or more workshops on green topics for employees and/or customers?	2	2	
Have your employees attended two or more workshops or other learning opportunities related to Challenge topics?	2	2	
Have 50% of staff set up a free home energy profile on LEAP's website?	2	2	?
Take Action - Engage your community			
Has staff volunteered as a group to participate in a community sustainability event?	2	2	
Have you underwritten sponsorship of a community campaign or effort related to sustainability?	2	2	
Have you recruited at least three other businesses to join the Challenge?	2	2	
GO THE DISTANCE!			
Have you organized an event for the Challenge on action items?	0	5	Thinking about it
Have you created a mini-web video describing the Challenge action items and positive results?	4	4	Want to do this
Have you offered incentives to other businesses in the Challenge (e.g. discounts or free products/services)?	5	5	Incentive for classes for other challengers!
SUBTOTAL	26	32	
BONUS INNOVATION: Describe a business innovation you have implemented that has significantly impacted the sustainability of businesses in our community through leadership. Describe in 300 words.		10	
SUPER SUBTOTAL	26	42	

APPENDIX C

lighting cost analysis calculations

Monthly Electricity Rates – Dominion Virginia Power

Distribution Service Charges	First 1,400 kWh	\$0.01805
	Over 1,400 kWh	\$0.01082
	Weighted Average	\$0.01323
Electricity Supply Service Charges	First 1,400 kWh	\$0.03722
	Over 1,400 kWh	\$0.03265
	Weighted Average	\$0.03417

Initial Cost

Light Type	Bulb	True Wattage	Cost/Bulb	Life Hours
Incandescent	25 W Exit	25		
	60 W	60	\$0.33	2,800
	65 W	65	\$1.25	2,000
	100 W	100	\$0.37	750
CFLs	25 W Exit			
	60 W	14	\$2.24	10,000
	65 W	16	\$3.33	8,000
	100 W	17	\$3.99	10,000
LEDs	25 W Exit			
	60 W	12	\$34.97	25,000
	65 W	13	\$39.97	25,000
	110 W	18	\$38.97	25,000

Incandescent Lights										
Space	Fixture	# bulbs	Wattage	Hrs/day Operated	Hrs/year	kWh/Month	kWh/Year	Total Cost/Month	Total Cost/Year	
Gym Area	Chandelier	4	60	24	8760	175.2	2102.4	\$8.31	\$99.66	
	Overhead Lights	37	65	6	2190	438.9	5267.0	\$20.81	\$249.67	
	EXIT Signs	3	25	24	8760	54.8	657.0	\$2.60	\$31.14	
Storeroom	Overhead Light	5	65	3	1095	29.7	355.9	\$1.41	\$16.87	
Bathrooms	Light/Fan Combo	4	100	4	1460	48.7	584.0	\$2.31	\$27.68	
	Single Light	4	60	4	1460	29.2	350.4	\$1.38	\$16.61	
TOTAL						776.4	9316.6	\$36.80	\$441.64	

CFLs										
Space	Fixture	# bulbs	Wattage	Hrs/day Operated	Hrs/year	Kilowatt hou	kWh/Year	Total Cost/Month	Total Cost/Year	
Gym Area	Chandelier	4	14	24	8760	40.88	490.6	\$1.94	\$23.25	
	Overhead Lights	37	16	6	2190	108.0	1296.5	\$5.12	\$61.46	
	EXIT Signs	3	17	24	8760	37.2	446.8	\$1.76	\$21.18	
Storeroom	Overhead Light	5	16	3	1095	7.3	87.6	\$0.35	\$4.15	
Bathrooms	Light/Fan Combo	4	23	4	1460	11.2	134.3	\$0.53	\$6.37	
	Single Light	4	14	4	1460	6.8	81.8	\$0.32	\$3.88	
TOTAL						211.5	2537.5	\$10.02	\$120.29	

LEDs										
Space	Fixture	# bulbs	Wattage	Hrs/day Operated	Hrs/year	Kilowatt hou	kWh/Year	Total Cost/Month	Total Cost/Year	
Gym Area	Chandelier	4	12	24	8760	35.04	420.5	\$1.66	\$19.93	
	Overhead Lights	37	13	6	2190	87.8	1053.4	\$4.16	\$49.93	
	EXIT Signs	3	2	24	8760	4.4	52.6	\$0.21	\$2.49	
Storeroom	Overhead Light	5	13	3	1095	5.9	71.2	\$0.28	\$3.37	
Bathrooms	Light/Fan Combo	4	18	4	1460	8.8	105.1	\$0.42	\$4.98	
	Single Light	4	12	4	1460	5.8	70.1	\$0.28	\$3.32	
TOTAL						147.7	1772.8	\$7.00	\$84.04	

Incandescent										
Space	Fixture	Initial Cost/Life Hours	Initial Cost/Year	1 Year Total Cost	3 Year Total Cost	5 Year Total Cost	10 Year Total Cost	25 Year Total Cost	50 Year Total Cost	
Gym Area	Chandelier	\$0.0001	\$1.03	\$100.69	\$302.07	\$503.45	\$1,006.90	\$2,517.26	\$5,034.52	
	Overhead Lights	\$0.0006	\$1.37	\$251.04	\$763.11	\$1,255.18	\$2,510.37	\$6,275.92	\$12,551.85	
	EXIT Signs									
Storeroom	Overhead Light	\$0.0006	\$0.68	\$17.55	\$52.66	\$87.76	\$175.53	\$438.82	\$877.63	
Bathrooms	Light/Fan Combo	\$0.0005	\$0.72	\$28.40	\$85.20	\$141.99	\$283.99	\$709.97	\$1,419.95	
	Single Light	\$0.0001	\$0.17	\$16.78	\$50.35	\$83.91	\$167.82	\$419.54	\$839.09	
	TOTAL		\$3.97	\$414.46	\$1,243.38	\$2,072.30	\$4,144.61	\$10,361.52	\$20,723.03	

CFL										
Space	Fixture	Initial Cost/Life Hours	Initial Cost/Year	1 Year Total Cost	3 Year Total Cost	5 Year Total Cost	10 Year Total Cost	25 Year Total Cost	50 Year Total Cost	
Gym Area	Chandelier	\$0.0002	\$1.96	\$25.22	\$75.66	\$126.09	\$252.19	\$630.47	\$1,260.93	
	Overhead Lights	\$0.0004	\$0.91	\$62.37	\$187.11	\$311.84	\$623.69	\$1,559.22	\$3,118.43	
	EXIT Signs									
Storeroom	Overhead Light	\$0.0004	\$0.46	\$4.61	\$13.82	\$23.04	\$46.08	\$115.20	\$230.40	
Bathrooms	Light/Fan Combo	\$0.0004	\$0.58	\$6.95	\$20.85	\$34.75	\$69.49	\$173.73	\$347.45	
	Single Light	\$0.0002	\$0.33	\$4.20	\$12.61	\$21.02	\$42.03	\$105.08	\$210.16	
	TOTAL		\$4.24	\$103.35	\$310.04	\$516.74	\$1,033.47	\$2,583.69	\$5,167.37	

LED										
Space	Fixture	Initial Cost/Life Hours	Initial Cost/Year	1 Year Total Cost	3 Year Total Cost	5 Year Total Cost	10 Year Total Cost	25 Year Total Cost	50 Year Total Cost	
Gym Area	Chandelier	\$0.0014	\$12.25	\$32.19	\$96.56	\$160.93	\$321.86	\$804.64	\$1,609.28	
	Overhead Lights	\$0.0016	\$3.50	\$53.44	\$160.31	\$267.18	\$534.36	\$1,335.89	\$2,671.78	
	EXIT Signs									
Storeroom	Overhead Light	\$0.0016	\$1.75	\$5.12	\$15.37	\$25.62	\$51.25	\$128.12	\$256.23	
Bathrooms	Light/Fan Combo	\$0.0016	\$2.28	\$7.26	\$21.78	\$36.29	\$72.59	\$181.47	\$362.94	
	Single Light	\$0.0014	\$2.04	\$5.36	\$16.09	\$26.82	\$53.64	\$134.11	\$268.21	
	TOTAL		\$21.82	\$103.37	\$310.11	\$516.84	\$1,033.69	\$2,584.22	\$5,168.45	

APPENDIX D

October electricity bill

Billing and Payment Summary

Account # Due Date: Nov 10, 2011

Total Amount Due: \$ 326.34

To avoid a Late Payment Charge of 1.5% please pay by Nov 10, 2011.

Previous Amount Due: \$ 1,086.60
 Payments as of Oct 18: \$ 1,086.60CR

For service emergencies and power outages please call 1-866-DOM-HELP (1-866-366-4357). Visit us at www.dom.com.

Meter and Usage

Current Billing Days: 31

Billable Usage
 Schedule GS-1 09/16-10/17
 Total kWh 3319

Measured Usage
 Meter: 0009546466 09/16-10/17
 Current Reading 164198
 Previous Reading 160879
 Total kWh 3319
 Current Reading 14.84
 Demand 14.84

Usage History

Mo	Yr	kWh
Jan	11	2616
Feb	11	4520
Mar	11	3543
Apr	11	3268
May	11	3725
Jun	11	5731
Jul	11	5604
Aug	11	5380
Sep	11	4199
Oct	11	3319

Explanation of Bill Detail

Customer Service 1-866-DOM-HELP (1-866-366-4357)	
Previous Balance	1,086.60
Payment Received	1,086.60CR
Balance Forward	0.00
<i>Non-Residential Service (Schedule GS-1) 09/16-10/17</i>	
Distribution Service	
Basic Customer Charge	11.47
Distribution Service kWh	46.99
Electricity Supply Svc (ESS)	
Generation	108.39
Transmission	19.32
Fuel	109.16
Sales and Use Surcharge	1.56
State/Local Consumption Tax	4.69
CHARLOTTESVILLE Utility Tax	24.76
Total Current Charges	326.34
Total Account Balance	326.34

View payment options, request service changes and enroll in eBill at www.dom.com, search, Manage Your Account

Important Customer Information from Dominion Virginia Power

When trimming your trees, make sure there are no power lines nearby or lines touching or growing through the branches. And don't climb in or prune trees through which power lines or service lines pass. When in doubt, call us at 1-866-DOM-HELP. That's 1-866-366-4357.

Help EnergyShare - add \$1,2,5,10,20,25 or 35 to your payment or mail a separate check payable to EnergyShare to PO Box 11186, Richmond, VA 23230-1186.

Help us identify you quickly when reporting a power outage. If phone number (434) 825-2507 is incorrect, call 1-800-222-0401 or visit 'Manage Your Account' on www.dom.com and select change phone number to update our records.

***** PRINT SUPPRESSED *****

Please detach and return this payment coupon with your check made payable to Dominion Virginia Power. Please see reverse side for mailing address, change instructions.

Payment Coupon

Bill Date Oct 18 11
 Please Pay by 11/10
 \$ 326.34

Amount Enclosed

Account No. _____

Send Payment to: _____

DOMINION VIRGINIA POWER
 P O BOX 26543
 RICHMOND VA 23290-0001

APPENDIX E

Assumptions:

Distribution Service Charges	First 1,400 kWh	\$0.01805	
	Over 1,400 kWh	\$0.01082	
Electricity Supply Service Charges	June - September	First 1,400 kWh	\$0.03722
		Over 1,400 kWh	\$0.04995
	October - May	First 1,400 kWh	\$0.03722
		Over 1,400 kWh	\$0.02400
Sales & Use Surcharge		\$0.00047	
Transmission		\$0.00582	
Fuel		\$0.03289	
Monthly kWh Usage	2,501 to 50,000	State Consumption Tax Rate	\$0.00065
		Local Consumption Tax Rate	\$0.00024

*NOTE: The estimated October bill is not equal to the one found on the electricity bill because Dominion's rates are constantly changing and may be out of date. These values are very close and a good reflection of the approximate cost.

Month	Year	kWh	Distribution Service		Electricity Supply Svc (ESS)		
			Basic Customer Charge	Distribution Service kWh	Generation	Transmission	Fuel
Jan	2011	2616	\$11.47	\$38.43	\$81.29	\$15.23	\$86.04
Feb	2011	4520	\$11.47	\$59.03	\$126.99	\$26.31	\$148.66
Mar	2011	3543	\$11.47	\$48.46	\$103.54	\$20.62	\$116.53
Apr	2011	3266	\$11.47	\$45.46	\$96.89	\$19.01	\$107.42
May	2011	3725	\$11.47	\$50.43	\$107.91	\$21.68	\$122.52
Jun	2011	5731	\$11.47	\$72.13	\$268.44	\$33.35	\$188.49
Jul	2011	5604	\$11.47	\$70.76	\$262.10	\$32.62	\$184.32
Aug	2011	5380	\$11.47	\$68.33	\$250.91	\$31.31	\$176.95
Sep	2011	4199	\$11.47	\$55.56	\$191.92	\$24.44	\$138.11
Oct	2011	3319	\$11.47	\$46.03	\$98.16	\$19.32	\$109.16

Sales and Use Surcharge	State/Local Consumption Tax	Charlottesville Utility Tax	Total Current Charges	Total Minus 10%	Savings
\$1.23	\$2.33	\$19.29	\$255.31	\$229.78	\$25.53
\$2.12	\$4.02	\$30.91	\$409.52	\$368.56	\$40.95
\$1.67	\$3.15	\$24.95	\$330.39	\$297.35	\$33.04
\$1.54	\$2.91	\$23.26	\$307.95	\$277.16	\$30.80
\$1.75	\$3.32	\$26.06	\$345.13	\$310.61	\$34.51
\$2.69	\$5.10	\$47.63	\$629.32	\$566.39	\$62.93
\$2.63	\$4.99	\$46.58	\$615.46	\$553.92	\$61.55
\$2.53	\$4.79	\$44.73	\$591.02	\$531.92	\$59.10
\$1.97	\$3.74	\$34.98	\$462.18	\$415.96	\$46.22
\$1.56	\$2.95	\$23.58	\$312.24	\$281.02	\$31.22
Total Savings				\$425.85	

APPENDIX F

Thermal Comfort Survey

Please mark the boxes to indicate your answers while thinking about the building you work in.

Example:

Building Name/Location: _____

Date Survey Completed: _____

1. How many years have you worked in this building?

Less than 1 year

1-2 years

3-5 years

More than 5 years

2. How long have you been working at Clay Fitness & Nutrition?

Less than 3 months

4-6 months

7-12 months

More than 1 year

3. In a typical week, how many hours do you spend in the gym?

10 or less

11-30

More than 30

Thermal Comfort

4. Which of the following do you personally adjust or control in the gym? (check all that apply)

- Window blinds or shades
- Operable window
- Thermostat
- Permanent heater
- Room air-conditioning unit
- Portable fan
- Ceiling fan
- Adjustable air vent in wall or ceiling
- Adjustable floor air vent (diffuser)
- Door to interior space
- Door to exterior space
- None of the above
- Other: _____

5. How satisfied are you with the temperature in the gym space?

Very Satisfied Very Dissatisfied

6. Overall, does your thermal comfort in the gym enhance or interfere with your ability to get your job done?

Enhances Interferes

7. Do you ever have complaints from clients who are too hot or too cold?

Often Never

Comments:

Air Quality

8. How satisfied are you with the air quality in the gym (i.e. stuffy/stale air, cleanliness, odors)?

Very Satisfied Very Dissatisfied

9. Overall, does the air quality in your workspace enhance or interfere with your ability to get your job done?

Enhances Interferes

10. Do you ever have complaints from clients about the air quality in the gym?

Often Never

Comments:

Lighting

11. How satisfied are you with the amount of light in your workspace?

Very Satisfied Very Dissatisfied

12. Do you consciously use natural light whenever possible?

Often Never

13. How often do you turn the overhead lights on during classes?

Often Never

14. Do you consciously turn off the lights when leaving a room in the gym space?

Often Never

15. How satisfied are you with the visual comfort of the lighting (e.g., glare, reflections, contrast)?

Very Satisfied Very Dissatisfied

16. Overall, does the lighting quality enhance or interfere with your class?

Very Satisfied Very Dissatisfied

Comments:

Acoustic Quality

17. How satisfied are you with the noise level in the gym? Is the music during classes loud enough?

Very Satisfied Very Dissatisfied

Comments:

Cleanliness and Maintenance

18. How satisfied are you with general cleanliness of the gym and bathroom facilities?

Very Satisfied Very Dissatisfied

19. How satisfied are you with cleaning service provided for your workspace?

Very Satisfied Very Dissatisfied

20. How satisfied are you with general maintenance of the building?

Very Satisfied Very Dissatisfied

Comments:

Building Features

21. Considering energy use, how efficiently is this building performing in your opinion?

Very energy efficient Not at all energy efficient

Comments:

Ideas to conserve energy:

22. Floor air vents

Very Satisfied Very Dissatisfied

I have no experience with it

30. Please estimate how your productivity is increased or decreased by the environmental conditions in this building (e.g. thermal, lighting, acoustics, cleanliness):

Increased Decreased
20% 10% 5% 0% -5% -10% -20%

31. How satisfied are you with the building overall?

Very Satisfied Very Dissatisfied

32. How satisfied are you with the newest renovation of this space?

Very Satisfied Very Dissatisfied

Any additional comments or recommendations about gym or building overall?