

# **North Adams Green Business Plan**

## *Creating a Blueprint for a Three-Tiered Approach*

### **Final Report**

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## **PART I: Research Context and Background**

### **Identifying the Problem**

In the coming years, the United States faces many difficult decisions about its consumption habits and economic structure with regard to the complex and multi-faceted problem of climate change. Climate change projections predict intensified storms, biodiversity loss, sea level rise, and other potentially disastrous changes in our earth's climate (IPCC 2001). The impetus of climate change is increased concentrations of greenhouse gases such as carbon dioxide in the atmosphere. The main sources of carbon emissions include: petroleum, coal, and natural gas combustion. Primarily these fuels provide the necessary energy to operate motor vehicles and to light and heat spaces.

Consequently, we must find innovative ways to reduce the global greenhouse gas emissions that contribute significantly to climate change while considering fossil fuels and energy use in our modern lifestyles. Although climate change mitigation should be a global effort, national and local initiatives can be instrumental in achieving this common goal. Given that the United States is the largest emitter of greenhouse gases and that 30% of those emissions come from the business and industry sector (even though a very small segment of this is from small businesses), reducing greenhouse gas emissions in US businesses is a necessity and responsibility (EPA 2009). Businesses can make a difference by lowering their overall electricity consumption, using energy more efficiently, and reducing the amount of transportation involved in their businesses inventory and daily operation. All of these steps are important because businesses not only save on their operating costs by reducing energy use and increasing efficiency, but also their efforts can contribute to creating a culture that appreciates their efforts.

The city of North Adams, located in Berkshire County in northwestern Massachusetts, is beginning to prioritize lowering citywide greenhouse gas emissions. North Adams has many community-based environmental efforts, such as the Take Charge energy-efficiency community outreach program at the Northern Berkshire Community Coalition (nbCC), the LEED-certified North Adams Public Library, and the Green Campus initiatives at the Massachusetts College of the Liberal Arts (MCLA). Not only are organizations within the city interested in ‘going green,’ but the city as a whole is as well. North Adams recently applied for a technical assistance grant to fund municipal energy-saving initiatives under the 2008 Massachusetts Green Communities Act. The act requires the city to reduce the energy use of municipal buildings 20% by 2020. This significant commitment calls for educating and engaging North Adams residents and businesses about issues of sustainability and energy usage.

To achieve this goal, our clients Wendy Penner and Nancy Nysten of the Center for Ecological Technology (CET) proposed drafting a blueprint for North Adams Green Business Plan. The project would assist North Adams’ downtown businesses in efforts to reduce their CO<sub>2</sub> emissions by focusing on energy usage and electricity savings. With the support of CET, Hoosac Bank in downtown North Adams and the North Berkshire Community Coalition (nbCC), participating businesses would gain access to the necessary information and resources to reduce their energy costs.

### **Initial Project Scope**

Our team’s primary goal is to create a blueprint for a self-sustaining green business program tailored to North Adams. We chose to focus our project on small businesses in downtown North Adams to gauge initial interest in the program for a number of reasons. We

defined a 'small business' as a shop in which the business's owner was the highest management authority, allowing us to work directly with decision makers who are located in North Adams and more easily determine current practices and future steps regarding energy consumption. We selected the downtown area because we felt that these local businesses were crucial to the North Adams community and that engaging with these businesses would help us to create a broader network among business owners and local consumers. We also wanted to support these businesses and reduce their costs rather than working with corporations which have more capital to implement changes without assistance from a green business plan. Furthermore, since there are so many incentive programs in place, we felt it would be simpler to deal with one particular type of business rather than looking into a range of available options for incentive programs.

To ensure successful construction and implementation of this plan, we must determine the needs and the desires of participating local businesses. We planned to survey business managers and owners to gauge local businesses' awareness of energy-saving techniques and to document any current energy efficiency practices. We also determined the businesses' interest in energy reduction strategies or tactics, in gaining recognition for such efforts, and in potentially taking on a leadership role within the green business program. This knowledge helped our team establish our priorities, focusing on the areas in which we could make the most progress and largest impact. We also identified the most suitable resources and incentives to facilitate businesses' participation in our program.

The plan initially focused on electricity use among small businesses on the Main Street downtown superblock, defined later. There were several advantages to focusing on electricity savings. First, since downtown businesses in the large, mixed-use buildings pay for their own electricity, focusing on this aspect of energy savings would engage business owners directly.

Reducing electricity use holds the greatest saving incentives for business owners since they are typically not responsible for the building's other associated costs like heating, which are covered by landlords. Second, because electricity can be easily measured, businesses are able to understand where costs are the highest as well as identify their inefficient practices. Finally, in Massachusetts, funding is available through National Grid's incentive program to promote electricity efficiency, reducing businesses' initial investment costs in energy-saving practices (National Grid website "Small Business Program" 2009).

### **North Adams: Past, Present, and Future**

To create a functional Green Business Plan, we considered North Adam's socioeconomic situation, current citywide energy usage, and the business climate for energy-savings. We recognized how vital the business climate was to our plan and hoped to gain a better understanding through our data collection. According to the 2000 census, North Adams has a population of 16,797 residents (US Census Bureau: "North Adams City Profile" 2000). The median age is 38 years and the average family size is 2.87 individuals. Approximately 18% of North Adams residents are over 65 years old, while 26% are 19 years old and younger. 95% of residents identify as white, 1.7% as black or African American, and 2% as Hispanic or Latino. 39% of the population over the age of 25 has a high school diploma or its equivalent, almost 5% have an associate's degree and 9.6% have a bachelor's degree.

In 2000, 3.7% of the North Adams population over 16 years old was unemployed (US Census Bureau: "North Adams City Profile" 2000). Considering current economic difficulties, it is reasonable to expect that this figure has risen over the past decade. In 1999, 13.5% of families were living below the poverty line. The Census Bureau and the federal government classify

families and persons as living below the poverty line if their total income falls under the poverty threshold specified for the applicable family size, age of householder, or the number of related children under 18 present.

According to the Food Bank of Western Massachusetts (FBWM), the poverty rate for Berkshire County is 10.5% (FBWM website). The Crittenton Women's Union's 2006 Family Economic Self-Sufficiency Standard (FESS) revealed that the overall cost of living is rising across Massachusetts. Their research states that "in 2006, a family of three in North Adams (a mother with two children) needed to earn \$44,229--over two and a half times above the Federal Poverty Level of \$16,600, and nearly \$10,000 more than the \$34,875 needed in 2003 to cover basic living expenses" (Crittenton Women's Union, 2006). For a North Adams family of 3 people (with only one adult), housing and childcare costs combined comprise 40% of their total budget (Crittenton Women's Union, 2006).

### *Commercial Sector Profile*

North Adams is a former mill town currently undergoing a transition "from a one industry-based economy to one made up of many small businesses" (City of North Adams Official Website, 2006). According to local historian Joe Manning, "North Adams had a thriving manufacturing economy until the 1960s, and finally lost 4,000 jobs and its largest employer, Sprague Electric Company, in 1986" (Mornings on Maple Street: "About North Adams," n.d.). The old Sprague factory building currently houses the Massachusetts Museum of Contemporary Art (Mass MoCA).

The majority of the workforce is now employed by large institutions like Northern Berkshire Health Systems, MCLA, the municipal administration, and big-box stores such as



Wal-Mart (Berkshire Regional Planning Commission 2002). The downtown area, on the other hand, is primarily represented by small business owners in the “retail trade” sector, the third most common type of establishment in North Adams (Labor and Workforce Development 2008).

A quick survey of Main Street and its immediate vicinity reveals businesses ranging from banks to coffee shops to boutiques to art galleries. Though some of the buildings on Main Street have stood since the city’s economic heyday, more than half of the downtown buildings were demolished in the 1960s and 1970s as part of “an ambitious and unsuccessful urban renewal experiment” (Mornings on Maple Street: “About North Adams,” n.d.). Urban neighborhoods were essentially eliminated, except for several apartment groups mostly on the upper floors of Eagle Street buildings. The destruction of these neighborhoods marked the end of the days when “children stopped at the Mom & Pop candy store, played marbles and nipsy near the YMCA, and watched the newspapers roll off the presses through a large picture window” (Mornings on Maple Street: “Final Autumn,” November 2001).

Residents and visitors in North Adams today can see many of these “modernizing” influences that have changed the atmosphere and content of the downtown. Even on Eagle Street, the remaining commercial block that still resembles the North Adams of the past (Mornings on Maple Street: “Taking Care of Eagle Street,” August 1999), space usage has undergone a transition to now include many art galleries. Throughout the city, the DownStreet Art program’s collaboration with artists, organizations, and the city has opened new temporary galleries and tied together over 15 participating spaces (iBerkshires Website, May 2009). This program serves as inspiration for the visibility and connections that could arise from a green business program.

We also recognized how the buildings’ structure and age affect electricity usage. Approximately 60% of the housing units were built before 1940 and only about 8% were built

more recently from 1980-2000 (US Census Bureau: “North Adams City Profile” 2000). While this is not a direct indicator of the age of downtown businesses’ buildings, it provided a frame of reference for quantifying what we had already learned from the history of the downtown. In addition, a high percentage of the buildings are owned and operated by landlords, rather than the business proprietors. Thus, we expected that working closely with a few major landlords would be crucial to our project’s success.

### **Site Description and Project Approach**

We planned to survey business managers and owners to gauge local businesses’ awareness of energy-saving techniques and to document any current energy efficiency practices. We also determined the businesses’ interest in energy reduction strategies or tactics, in gaining recognition for such efforts, and in potentially taking on a leadership role within the green business program. This knowledge helped our team establish our priorities, focusing on the areas in which we could make the most progress and largest impact. We also identified the most suitable resources and incentives to facilitate businesses’ participation in our program. To design a successful Green Business Plan, our team worked with business owners and store managers in this extended, walkable block of downtown North Adams that runs along Main Street and Route 2 and is bordered and intersected by Holden, Eagle, and Marshall Streets (see Map 1). We looked closely at the businesses contained in this area and established the following categories for businesses:

1. Retail (small-scale and commercial)
2. Restaurant/Grocery
3. Services (such as banks and salons)

A preliminary inventory of the businesses in the area we will be covering is also attached, with the businesses who responded to our survey in bold (Appendix 1). We also conducted follow-up interviews with significant players in the North Adams commercial sector, which included: Dave Carver, Managing Partner and Pete Ticconi, Building Operation Manager of Scarafoni Associates, the landlord for the majority of the businesses surveyed; Dan Lester owner of the popular Cup and Saucer café; and Johnathan Secor, the Director of Special Programming at MCLA and coordinator of the DownStreet Art initiative.

Hoosac Bank and the Northern Berkshire Community Coalition (nbCC), both of whom have strong presences in downtown North Adams, showed support for our efforts. Their support is key because North Adams does not have a cohesive business network, nor does the city have business associations more local than the countywide Chamber of Commerce.

### **Possible Barriers to a Green Business Plan in North Adams**

#### *Weak Ties Among Businesses*

Local businesses in North Adams do not have a network in which to share or provide information; we saw this lack of cohesion as a potential obstacle. This lack of local organization and communication could make it more difficult to reach a large number of businesses with our green business plan. A business network in North Adams, providing information and gauging interest would facilitate the process. However, by linking businesses through shared energy-savings and goals, the North Adams Green Business Plan could create a local business network.

#### *Building Ownership*

In downtown North Adams, many businesses are located on the first floor of a multiple story, mixed-use building. Because one large block building typically has one owner, individual

businesses may have limited control over their energy use. For example, many businesses pay electric bills for a space they do not own. Therefore many business owners cannot make changes if they do not have the permission of the landlord and major changes to the building would have to be made by the building owner. The disconnect between energy efficiency measures and savings on monthly electric bills can reduce the incentives for business owners to participate in a green business plan. Our plan would focus primarily in the area of electricity because it is the simplest measureable energy cost with relatively easy reduction methods. Moreover, we hoped to include landlords in a dialogue about energy efficiency with the business owners. If the business owner wants to reduce energy costs, the landlord, who might pay some of the energy bills, will have an incentive to participate in this plan.

#### *Potential Lack of Interest, Information, and Time*

Previous studies, such as the Williamstown COOL Committee business plan, have indicated that business owners tend to hold certain assumptions about energy efficiency, lack access to information on energy efficiency tactics, or believe they do not have the time and money to participate in energy-saving (Williamstown COOL Committee 2009). To combat these barriers, the North Adams Green Business Plan would provide educational materials, gauge initial interest, and work with businesses on the level they feel capable.

### **Learning from Example**

#### *Academic Studies*

Assessing research on green business programs helped move our project forward successfully. From examining other ‘green city’ or green business plans, we gained applicable knowledge for financing green business projects, creating incentives in green energy practices,

and overcoming barriers to implementation. In our current research, it is important to note that we did not find any low-income urban neighborhoods that encouraged businesses to ‘go green’ from solely an energy-savings standpoint, making our project unique. However, a successful model for this type of plan may result from this project.

In examining other plans, we analyzed the barriers to implementation faced by other green business programs so we could propose solutions and incentives to combat these barriers in North Adams. From examples, we learned that socioeconomic issues are key to understanding how to approach a green business plan. William Hoffman in his 1996 paper “Overcoming the social and psychological barriers to green building” suggests that communities with an average income below \$50,000 are less likely to support green business plans than higher-income communities. However, business owners may still be enticed to support a green business program if given monetary incentives or shown the financial benefits of reduced operation, maintenance, and utility costs.

Our plan would also be more successful if it relayed a message of personal impact to these businesses. Anthony Leiserowitz, the Director of the Yale Project on Climate Change, highlights the drawback of using general language of climate change and pollution on the global scale when encouraging environmentally friendly choices (Leiserowitz, 2005). Instead, he encourages tailoring information to be pertinent to the business. In our survey, we will pin down the burden that each business bears for energy costs so that the Green Business Plan may provide personalized energy-saving consultations on a business-by-business basis.

Similarly, resource limitations can restrict the ability of an organization to overcome sunk costs in equipment and appliances. These costs can bias business owners from taking certain actions or responses to demands for change. Additionally, though 28% of businesses ask for

energy audits, many do not implement the audit's recommendations (US EPA, 1997). In many cases, these owners have invested heavily in lighting their facility and have committed themselves to the existing system. We can address these qualms directly by acknowledging that though the business owners may have committed to certain types of appliances for their business, they can save money in the long run with new and updated energy-saving equipment.

A change in the social climate, so that local customers support environmentally-sound practices, can provide the incentive for business to implement energy-saving practices. An alliance among North Adams businesses could create a forum for support and sharing their experience greening their spaces, and could serve as an example to other businesses.

#### *Legislative Programs: Environmental Policies and City Politics*

We should also work to gain support from influential North Adams persons, such as Mayor Alcombright, who could lend political and financial support to this plan. Legislation has been put in motion for mayors to join "The United States Conference of Mayors' Climate Protection Agreement" and vow to reduce carbon emissions in their cities in keeping with the Kyoto Protocol recommendations. Though North Adams has not yet joined this Conference, we hope that the new administration will work this association as part of Alcombright's pledge to make North Adams an environmentally sustainable city. Already under the leadership of the Conference, the Energy Efficiency and Conservation Block Grant (EECBG) Program was conceived, making it possible for the first time in US history for cities, counties and states to receive grants specifically to fund energy-efficiency projects. This program was a top priority of the Mayors' 10-Point Plan and the Mayors' MainStreet Recovery Program. The American Recovery and Reinvestment Act of 2009 distributed \$2.8 billion for EECBG, money that will

benefit hundreds of U.S. cities. Gaining the support of the mayor of North Adams could create broader support for environmental progress in the City.

In 2009, North Adams received a technical assistant grant under Massachusetts Governor Deval Patrick's Green Communities Act. The Act facilitates energy-efficient practices in local businesses by providing free energy consulting services under the condition that the awarded community has established an energy committee or a partnership with a community organization. Under this act, North Adams must achieve the following:

- Adopt local zoning bylaw or ordinance that allows “as-of-right-sitting” of renewable energy projects – sitting that does not unreasonably regulate these uses;
- Adopt an expedited permitting process related to the as-of-right facilities;
- Establish a municipal energy use baseline and establish a program designed to reduce baseline use by 20 percent within five years;
- Purchase only fuel-efficient vehicles for municipal use, whenever such vehicles are commercially available and practicable;
- Require all new residential construction over 3,000 square feet and all new commercial and industrial real estate construction to reduce lifecycle energy costs.

The Berkshire Regional Planning Commission must assist in the Act's implementation.

Moreover, National Grid, the electricity provider, must belong to the Massachusetts Renewable Energy Trust to ensure that clean energy projects are receiving support (Green Communities Act Press Release 2009).

In line with the City's commitment to the Green Communities Act, our Green Business Plan must incorporate energy-saving incentive programs that are already in place in Massachusetts. In general, incentive programs provide energy audits, tax credits, and rebates for energy-efficient appliances, renewable energy systems, and other energy-saving technologies (Dilling & Fahrar 2007). These programs will provide funding for local businesses to purchase

technologies that would otherwise be unaffordable for many business owners. Massachusetts offers a wide array of tax incentives, rebates, and programs for purchasing renewable energy or implementing energy-efficient practices.

The Database of State Incentives for Renewable Energy provides several dozen resources to businesses, residencies, and municipalities that are looking to invest in renewable energies and energy efficiency, including National Grid (DSIRE 2009). National Grid works in the state to provide free energy audits and significantly reduce the costs of investment in energy-saving products (National Grid 2009). At the national level, the United States Department of Energy provides resources to statewide programs to ensure their effectiveness (US Dept. of Energy, October 26, 2009). More locally, the Center for Ecological Technology and the Take Charge campaign may serve as models of how to collaborate with multi-leveled government incentive programs.

In addition to finding available incentives, it is necessary to ensure that the City can implement a green business initiative. “The Cities for Climate Protection” (Young 2007) warns that local governments attempting to pursue policy agendas which encourage reducing energy consumption often have trouble securing resources to staff and execute such plans. To remedy this problem, the Green Communities Act guidelines suggest that cities take advantage of resources such as Energy Star professional auditors (Guidelines for Qualifying as a Green Community 2009).

In this case, support from international networks such as ICLEI – Local Governments for Sustainability – may be necessary. Their climate protection program’s methodology for success includes:

- Conduct a greenhouse gas emissions inventory and projection;
- Establish an emissions reduction target;



- Develop a local action plan to reduce emissions;
- Implement the local action plan; and
- Monitor progress and report on results. (Young 2007)

ICLEI suggests that there are three common factors to success. First, local politicians must realize how they can significantly contribute to global emissions reduction efforts. Second, there must be support from a key representative within the local governing body. Third, the local government must be part of a larger regional, national, or international network.

Another issue that might arise with a green business plan is the building codes, which might restrict changes business owners can make to their spaces. In order to perform extensive retrofits, changes to the building's electrical system, or alter a building's construction, forms must be submitted to the Department of Fire Services, the Building Department, and potentially the Historical Commission. These steps are especially important because the downtown block is composed of larger and older mixed-use buildings that may require such extensive changes.

### *Case Studies*

To guide us in our efforts, we looked to a green business program that was implemented in Burlington, Vermont. Burlington created an alliance that includes the City of Burlington as well as key county agencies such as the Chittenden County Regional Planning Commission. The program also partnered with the Burlington Electric Company to facilitate upgrading lighting fixtures. We think a similar expansion of a local business alliance to include key supportive groups would be possible in North Adams, especially since its electrical provider, the National Grid, has already established a system that provides preliminary funding for renovations (National Grid Website 2009).

Other examples we can look to are franchise businesses that have made moves towards

energy efficiency and can serve as leaders to facilitate other businesses to engage in similar energy-saving techniques. For example, McDonald's—a chain with a restaurant in North Adams—set energy conservation standards that must be followed by all of their stores nationwide. McDonalds has installed energy-efficient equipment, tracked its restaurants' energy usage, and educated restaurant owners about electrical energy use and energy-savings. Though energy-saving efforts in North Adams small businesses will reduce the local commercial sector's emissions and educate the public, a far greater impact can be made to mitigate climate change by targeting the large chains in North Adams, like McDonalds and Wal-Mart, and encouraging them to adopt more stringent energy conservation measures throughout their franchise. However, energy-saving decisions are made at the corporate level and we could not influence such changes within the scope of this project.

A project similar to our proposed Green Business Program was implemented in Williamstown in 2006. The COOL (CO<sub>2</sub> Lowering) Challenge helped the small businesses in Williamstown reduce their carbon emissions. The COOL Committee and the ENVI 302 students worked to educate businesses on available energy-saving techniques—from turning down the thermostat to purchasing more energy-efficient appliances—as well as the financial benefits of implementing these practices. The three most effective recommendations for the businesses to further reduce their energy use were to replace 50% of their incandescent bulbs with CFLs, to turn down their thermostat five more degrees overnight, and reduce the time displays were lit by one hour.

## **Main Components of a Green Business Plan**

In order to create and implement a green business plan, our team and other involved parties need knowledge of the diverse tactics used to reduce businesses' environmental impact. This knowledge encompasses the energy audit and assessment process and the steps taken to reach energy efficiency goals. This information will be used to ensure that each business employs the methods best suited to their needs and the technologies best fitted to their space. Our business plan therefore incorporates energy assessments, recommendations for information about opportunities for money-saving technologies, and energy-saving practices that can be undertaken by the business's owners and staff.

The EPA recommends several methods for assessing the energy-saving potential of a business. These recommendations can serve as guidelines for local North Adams businesses to determine which tactics will be most suited to their economic priorities, location, business type, etc.

- *Technical Potential* establishes which energy features are feasible from an engineering perspective, putting emphasis on the business' built environment.
- *Economic Potential* examines the benefits of the most cost-effective technical measures, such as the amount of money a company would save by using fluorescent light bulbs instead of incandescents.
- *Maximum Achievable* refers to the potential financial benefits a business could gain in a particular time period.

Other starting points include gauging how much energy is saved through program funding, incentives, or natural market forces (EPA 2006). These types of assessments can be undertaken using various tests or consulting with experts, and may also be used in conjunction with an energy audit to guide the next steps.

The energy audit is an assessment which examines the business space to determine where energy is being wasted and where improvements can be made through changes in practice, electronic devices, heating, and the like to improve energy efficiency and savings. For the North Adams Green Business Plan, free energy audits are provided through the National Grid. After the audit, businesses can see where electricity use is the highest and change their business practices according to the most important energy uses. Each business can take simple measures to reduce electricity use through small changes in how they use energy. The largest realms to consider in energy use are: lighting, heat, appliances, refrigeration, and electronics (Personal Communication, Sasha Macko, October 27, 2009). Businesses can cut energy costs in these realms without any assistance by turning off lights when not in use, turning down thermostats, sealing air leaks in windows and doors, or changing light bulbs (Williamstown COOL Committee 2009).

#### *Assistance from National Grid Small Business Program*

The National Grid sponsors a national energy efficiency program in Massachusetts that provides businesses with free energy audits and recommendations for improvements in energy efficiency, as well as information on various technologies that can be financed through this program (National Grid website 2009). The Small Business Program offers businesses that use an average of 200 kilowatts or fewer per month help in reducing energy costs through installing energy-efficient equipment. National Grid pays 70% of the cost of installing energy-efficient equipment and charges no interest on the remaining 30% for up to two years. It also offers cost efficient equipment such as lighting upgrades, energy-efficient time clocks, photo cells for

outdoor lighting, occupancy sensors, programmable thermostats, and walk-in cooler measures (National Grid website 2009).

Over the past five years, seventy-one North Adams businesses have participated in the National Grid's Small Business Plan. This number includes businesses that requested audits and completed their projects as well as those businesses, called non-participants, who requested audits but did not go through with the project (Personal Communication by Sasha Macko, October 28, 2009). This program, unlike most city plans, does not set any goals for electricity saving or carbon dioxide reduction.

## **PART II: Research Methodology and Results**

### **Methodology**

Our project team created a simple, yet direct, questionnaire to gather information from local business owners about their current efforts to be energy-efficient, their current awareness about existing energy-saving tactics, their desired awareness of these issues, and what steps they would be willing to take in the future. We also tried to gauge the receptiveness of business owners to a recognition program in the current business climate.

The surveys were distributed using the drop-off method, one that is efficient for projects that are inexpensive, are in small neighborhoods, have short questionnaires, and have a small staff yet a relatively large sample size (Salant and Dillman 1994). Using this system, surveys and a letter of introduction (Appendices 2, 3) were distributed to business owners on Main, Marshall, Holden, and Eagle Streets in downtown North Adams. The surveys asked for contact information followed by a series of structured, single-answer questions about building space, energy costs, energy use practices, and current or desired awareness of energy efficiency. This was followed by a series of open-ended questions to gauge the existence of community ties among downtown

business owners. We asked if businesses were part of any local business associations or if owners had spoken to other businesses about energy usage issues. To see if a recognition program would be appropriate, we asked if businesses would like to be recognized or receive publicity for their efforts in reducing energy consumption.

### **Sponsors**

With the assistance of our clients, Wendy Penner and Nancy Nysten of the Center for Ecological Technology, our project to create a North Adams Green Business Plan gained support from many of North Adams' influential citizens and institutions. Jay Green from the municipal administrative office said that the city is "supportive" of the project (Personal Communication by Nancy Nysten, October 1, 2009). The North Adams Building Department also endorsed the program as a "great idea" (Personal Communication by Nancy Nysten and Wendy Penner, November 5, 2009). Dick Alcombright, the former vice president of Hoosac Bank in downtown North Adams and mayor-elect of the city, supported the project. He called it a "great plan and another big step forward for the city" and a project in which he "would love to be involved" (Personal Communication by Wendy Penner, September 25, 2009). With the support of these important figures in the municipal government, our project gained more credibility with local businesses.

Another important partner for our project is the Northern Berkshire Community Coalition (nbCC). The nbCC has helped North Adams residents save energy in their homes through the Take Charge campaign and view our Green Business Plan as a complementary extension into the city's business sector. The director of the nbCC, Al Bashevkin, said that his organization is "very

interested and excited” about working with us to help businesses save energy and money (Personal Communication by Madeline King, October 12, 2009).

The project is also supported by the Mountain One Financial Partners, including Williamstown Savings Bank, Hoosac Bank, True North, and Coakley Pierpan Insurance. John Law, president of Williamstown Savings Bank, said on behalf of Mountain One that they would “be honored to be a partner” in our plan (Personal Communication by Nancy Nylen, November 10, 2009). Having been an active supporter of the COOL Business Program in Williamstown, Williamstown Savings Bank is an experienced and influential supporter who could help us with the Green Business Program’s future promotion, outreach, and business recognition efforts.

### **Introduction to our Green Business Plan**

We distributed surveys to all business owners in the downtown block in North Adams, spoke to representatives from involved local organizations, and conducted follow-up conversations with key individuals in North Adams businesses. Through this research, we learned that our proposal must balance grassroots and top-down efforts. To create reductions in CO<sub>2</sub> emissions, enable financial savings, and build awareness, this proposal must be implemented through a tiered approach that allows multiple players to be involved and implements energy-saving technologies in appropriate degrees.

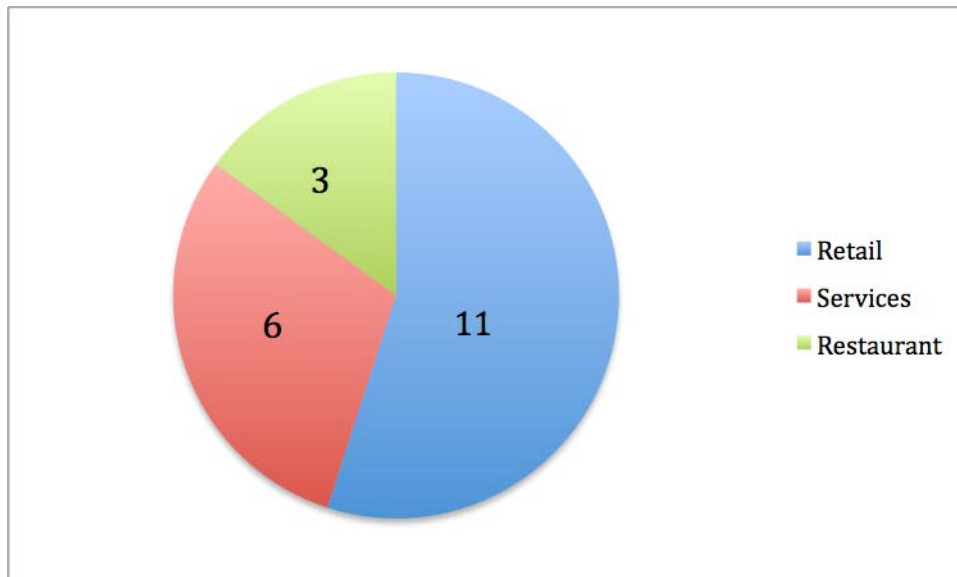
Based on our interviews, data analysis, and personal experience, we recommend three potential tiers of action:

- Tier I: Small Business Approach: focuses on simple steps that can be taken directly by business owners; provides educational pamphlets; engages directly with business owners and managers

- Tier II: Building-by-Building Approach: focuses on working with landlords to tackle mixed-use buildings; provides educational workshops; involves collaboration between landlords, owners, and managers
- Tier III: Downtown Business District Approach: focuses on involving the City of North Adams in providing incentives and support for enacting recommendations from energy audits; involves citywide collaboration between businesses, sponsors, and other organizations

### **Final Survey Results**

We surveyed 21 businesses in downtown North Adams: 11 retail businesses, 3 restaurants, and 7 services such as banks and salons (Figure 1). The survey encompassed the following categories: business ownership, the proportion of operational costs dedicated to electricity bills, current green energy awareness, interest in a green business plan, and interest in a green business recognition program.

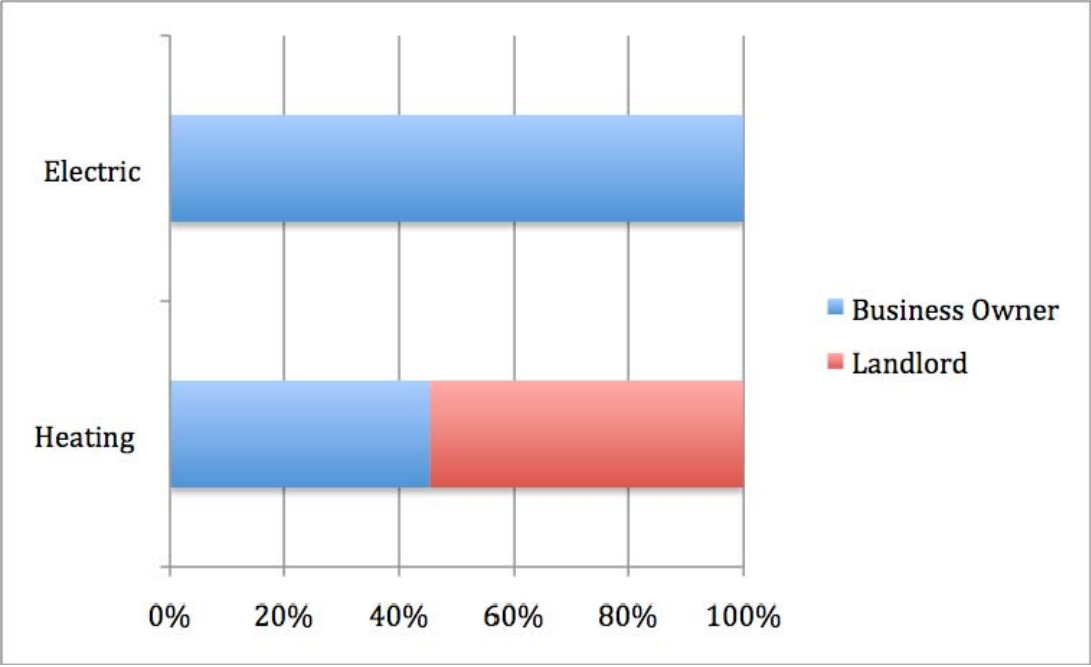


**Figure 1: Surveyed Business Types**

We found that the owner is responsible for paying electricity bills in all the businesses surveyed. In contrast, the landlord pays the heating bill in 55% of the businesses (Figure 2). Additionally, 24% of respondents said electricity represents about one-quarter of their total

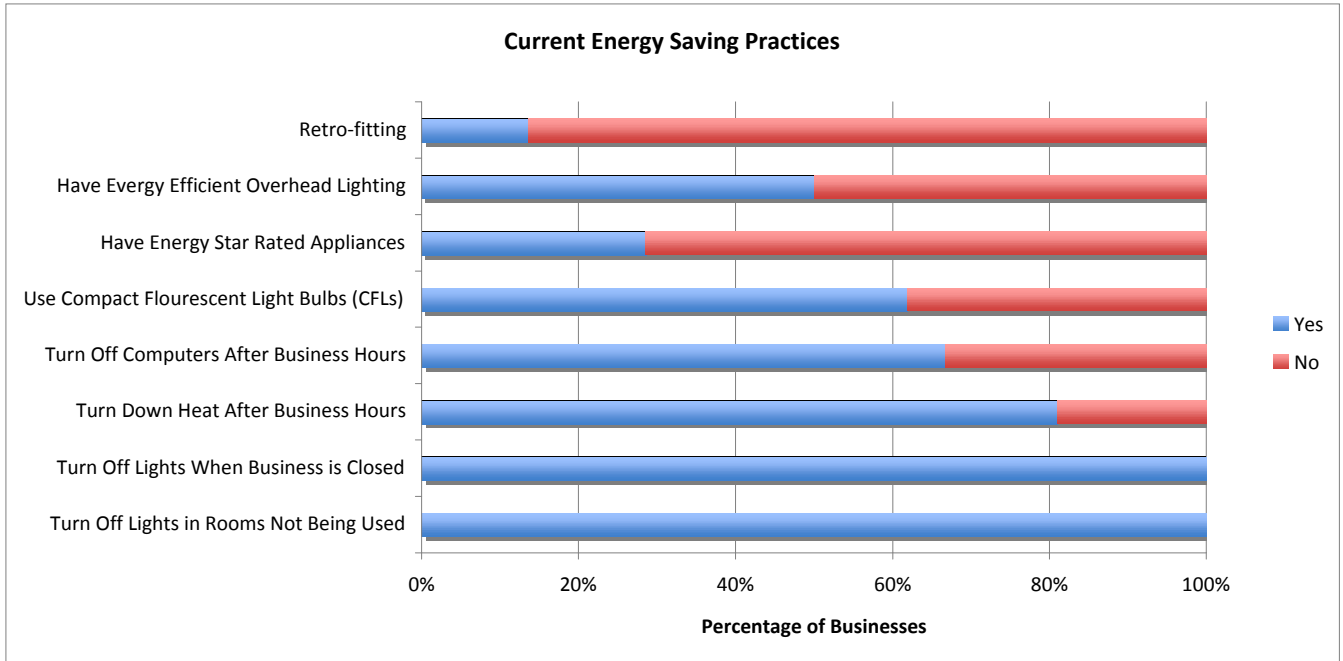


operational costs, while 71% indicated that it represented less than one-quarter (some businesses did not respond). The majority (81%) of the businesses surveyed expressed that these expenses are paid with relative ease.



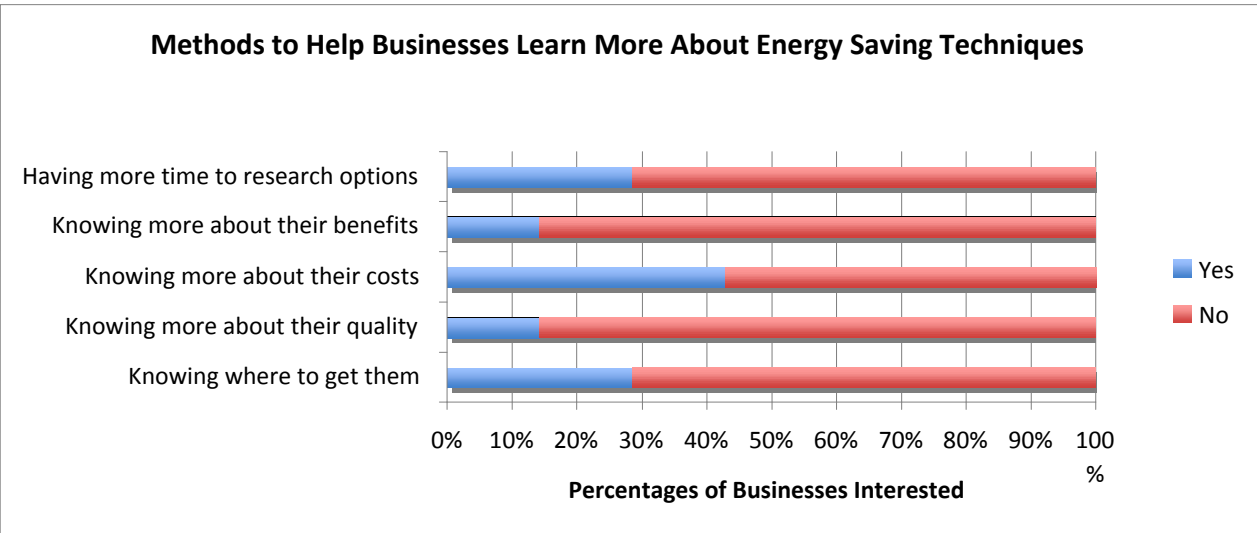
**Figure 2. Responsible Party for Electric and Heating**

Although results are scattered for levels of awareness about environmental organizations and ongoing green initiatives, an overwhelming majority of businesses have heard of green technologies and techniques such as CFLs, Energy Star Appliances, heating efficiency, and energy audits. Though some respondents did not indicate having taken any steps to reduce energy usage, of those who had, the majority (77%) stated that they have already taken at least two steps to save energy (Figure 3).



**Figure 3. Baseline Green Energy Practices**

We also found that 67% of businesses are interested in learning more about energy-savings and technologies. Though 33% of businesses indicated that they were not interested in learning more about energy-savings techniques, 57% of those businesses still indicated they could most easily learn more about techniques from distributed information sheets (Figure 4). Based on these findings, we inferred that they prefer this educational approach because it is the least time consuming. Interestingly, our results showed that 82% of business owners have not heard of other businesses making energy reductions, despite the fact that most businesses have engaged in some form of energy-savings routine.



**Figure 4. Preferred Educational Outreach Materials**

**Follow-up conversations**

After identifying business owners whose responses to the survey interested us, we conducted follow-up interviews by phone and in person. Of the businesses we spoke with, Cup and Saucer and Shima have taken the most significant energy-saving steps and have both expressed interest in a green business recognition program. We worked with them to consider how framing the benefits of a recognition program could encourage others businesses to participate.

When we spoke with Atef Bolos, owner of Atef Fine Jewelers and a tenant of Scarafoni, about his building’s heating system, we discovered there is an issue with overheating in these buildings. The thermostat was set to 75° and the room was so warm that the owner was sweating as he worked. We asked if he could turn down his thermostat, and he told us that his landlord set the temperature, thus it was out of his control. The thermostat was set so high during the winter that Mr. Bolos turned on his air conditioning to keep his store at a comfortable temperature (Personal communication, Chandler Sherman, November 13, 2009). Additionally, we observed

that the owner of Persnickety Toys had her fan on to cool her overheated building. In both businesses, the landlord pays the heating bill. Therefore, we addressed this issue of overheating, which is a significant waste of both energy and money, in our subsequent conversations with landlords.

Computer Bug was the only business of those we surveyed that had worked with National Grid in his current location, yet the owner still expressed a lack of interest in pursuing further green initiatives. Howard Levitz, the owner of Photoworks, on the other hand, had gotten an energy audit at his business's old location and said that he was able to implement their recommendations with "minimal expense" (Personal communication, Chandler Sherman, November 13, 2009). Speaking with other business owners helped shed light onto this apparent inconsistency.

Jonathan Secor, the Director of Special Programming at MCLA and coordinator of the DownStreet Art initiative, told us that Gallery 51 on Main Street received an energy audit from National Grid several years ago and was disappointed with the recommendations he received, to turn off the lights and take other simple measures. The gallery already turns off all lights at night—except for one front-light that uses an energy-efficient LED bulb—and does not have energy costs other than for air conditioning during the summer months. The heating costs are included in the rent for the space, like in most other downtown rental spaces (Personal communication, Sasha Macko, Nov. 17, 2009).

### **Moving Forward: The Three Tiered Approach**

From our survey results, we found that small business owners do not have the control over their energy consumption that would be needed for them to coordinate a significant green business movement. Although individual businesses can still provide grassroots support based on

their own energy-saving experiences, we feel that it would be more strategic to work with landlords, organizations such as CET, and local business leaders to provide support and incentives. We must identify the individuals in control of the energy usage of the mixed-use buildings so that the Green Business Plan can tackle issues such as business owners' inability to regulate their heat (Personal Communication, Chandler Sherman, Nov 13, 2009; Personal Communication, Rachel Savain, Nov. 17, 2009).

We found that working holistically to address mixed-use buildings with the help of landlords and the City will increase the total energy-savings. This top-down plan must generate support for impending changes and create awareness of larger-scale energy modifications that could be possible with financial support from National Grid. A self-sustaining Green Business Program will rest on the motivation of the small business owners and the support of key officials. Developing a recognition program would also create a structure of support among local businesses that does not currently exist.

The businesses surveyed desired information about the costs of energy-saving technologies and techniques. Community business workshops are a viable option to provide these educational opportunities, providing a space for businesses to connect with financial sponsors and other groups supporting green endeavors. More financial support would also allow businesses to think of business solutions in terms of environmental benefits. Though many businesses have relatively low electricity costs, some have much higher energy costs due to lighting and other specific uses; for example, about 85% of Gallery 51's budget goes to electricity costs. Gallery 51 has looked to alternative energies to reduce its costs and environmental impact, but has run in to difficulty using energy-efficient lighting because of the

need for ‘warm light’ within the gallery space , while most available energy-efficient bulbs emit a ‘colder’ toned light (Personal communication, Sasha Macko, 11/17/09).

The first tier would be a grassroots effort organized by business leaders and supported by organizations such as the nbCC and CET. Businesses would be encouraged to take simple steps on their own and would be provided with educational pamphlets about these steps. For example, CET could distribute a brochure detailing: how to replace fluorescent lightbulbs with energy-efficient lighting; how to “green” small spaces by changing practices such as lowering thermostat temperature; and how to contact other resources.

While this level of approach might not have as significant an impact as a large-scale effort, it would meet our goal of promoting awareness and engaging with business owners and managers. In addition, a business’ financial savings from these small-scale energy-saving practices will accumulate over time. We would recommend that CET stay in contact with the business owners who have expressed the most interest in participating in a green business program. Hoosac Bank could provide support through publicity and informative publications, perhaps even offering lower-interest loans to businesses purchasing expensive energy-efficient appliances. The nbCC might also be able to lend organizational assistance to this project, ensuring that our business program is complementary to its Take Charge residential energy-saving campaign.

The second tier would be a building-by-building approach coordinated by landlords, property owners, and business owners with support from CET, MCLA and the North Adams Public Library. Businesses would work within a holistic framework that aims to tackle mixed-use buildings and approach spaces from retail to office to residential. Educational opportunities—such as a workshop led by a CET business consultant or an information session

with a representative from National Grid—would combine learning about resources with facilitating the necessary cooperation and commitments among involved parties. The main goal of this tier would be to promote and support energy audits.

We see this approach as being the most realistic because it involves an achievable level of coordination and cooperation; however, it might not provide enough support for moving beyond education into action and it will require landlords to take a substantial initiative. Energy audits would provide valuable advice for how businesses and buildings can ensure that their energy savings approach is feasible and compatible with the time and resources they have available.

The third and final tier is our ideal energy-savings program, one that may not be feasible to implement with the current interest levels and capital available in downtown North Adams. Tier III would approach the downtown as a green business district. City officials would work with National Grid and CET to design incentives for greening the downtown block to provide encouragement to landlords and business owners. This approach would involve implementing the recommendations of the energy audits from Tier II as well as other energy-savings measures that help the City meet its goals under the Green Communities Act. Businesses that meet these standards, such as Cup and Saucer who implemented measures before this program, would be honored by the City with a recognition program that includes stickers and signs for the businesses to display; essentially providing free publicity that promotes the businesses as cutting edge, environmentally friendly, and socially proactive.

Tier III is more of a top-down approach, providing centralization and stronger incentives to help businesses and landlords implement the other options we have presented. However, at this point in time, North Adams might not be ready for a coordinated green business district until

the successes of earlier steps and tiers are visible. Even with the City's backing, business owners would still need to take the initiative to 'green' themselves; support we have received from the mayor-elect needs to be met by leadership from, for example, the downtown restaurants or MCLA Gallery 51.

### **Decision Matrix**

We created a decision matrix to rank the options for our green business plan and decide quantitatively which tier to recommend to our clients. We evaluated each tier based on multiple criteria within three categories: economic impact, environmental benefit, and feasibility. We ranked each aspect on a -5 to 5 point scale, with nine criteria and 45 possible points total. A negative score represents a loss of money or time, from a small loss (-1) to a greater loss (-5). We ranked these factors as negative because they could potentially deter implementation. A score of "0" represents no change from the current situation. A positive score demonstrates a benefit of savings or impact, from a small benefit (1) to a greater benefit (5).

Since we presented this project to business owners from an economic standpoint to demonstrate the practical and tangible benefits of energy savings, the element we analyzed first was the economics of each tier's program. We looked at how much each tier would cost the business owners, landlords, or the City, respectively. We balanced the cost with estimates of the financial savings that would result from the implementation of the energy-saving techniques. We also considered the scale of incentives available to offset the costs of these practices.

Next, since the ultimate goal of our clients at CET is helping the environment, we examined the environmental aspects of each tier. We first judged the scale of the environmental impact of the energy savings, from the small benefits of switching a few lightbulbs to CFLs to the relatively large benefits of retrofitting an entire building to be more energy-efficient. We also



looked at the educational value and potential of each program to raise awareness of environmental issues like climate change.

Lastly, we turned to the feasibility of each plan to assess what can realistically be put into effect. We analyzed the results of our surveys and interviews to assess the interest from the applicable parties (e.g. the business owners, landlords, or city, respectively) in each tier's programs. We also considered how easily each program could be implemented in North Adams, taking into account the time and investment each would require. We accounted for the amount of external support and investment (financial, time, and personnel) each program would require from CET, the City, and other resources. Finally, we looked at the potential of each tier to build a sense of inter-business community in downtown North Adams and restore the communication and support that currently is not provided by a local business organization or the Berkshire Chamber of Commerce.

**Table 1. Decision Matrix**

Scale -5 to 5	<b>Tier I</b>	<b>Tier II</b>	<b>Tier III</b>
<b>Economics</b>			
Costs of Implementing Techniques	-2	-3	-5
Financial Savings from Techniques	2	3	5
Financial Incentives Available	1	4	5
<b>Environment</b>			
Scale of Environmental Impact	1	2	5
Education and Raising Awareness	2	4	4
<b>Feasibility</b>			
Interest from Applicable Parties (e.g. business owners, landlords, or city)	4	2	1
Ease of Implementation	5	4	1
Need for Coordination and Organization from Outside Groups	1	-1	-3
Community-Building Potential	0	5	3
<b>TOTAL</b>	15	21	16

## **Matrix Analysis**

### *Matrix Score for Tier I: Small Business Approach*

This approach scored lowest in our matrix with 15 points. The costs of this approach—for example, replacing current lightbulbs with CFLs and old equipment with energy-efficient appliances—are low, but not insignificant for small business owners. However, if business owners implement our Tier I savings recommendations, they will still save a significant amount of money on energy bills since CFLs and Energy Star appliances use an estimated 25% less energy and save a proportional amount on energy bills in comparison to regular lightbulbs and appliances (Energy Star website 2009). We concluded that the financial savings would offset the initial costs of these measures and that loans and incentives available from the Environmental Protection Agency for small business, which would create a net economic benefit. These changes would also have a small but positive benefit for the reducing carbon emissions: changing a single incandescent bulb to a CFL would save an estimated 300 pounds of carbon dioxide per year (Climate Crisis website 2009). Our recommended educational information sheets would raise awareness with business owners about climate change, but would also be easy to ignore if businesses were not interested; thus, Tier I had a low score for educational value. Businesses were very interested in taking these small steps and many have already taken some such measures as switching to CFLs and turning off their computers at night, while indicating that they would take further steps if given more information. These steps could be implemented easily and independently of outside support, but as a result, Tier I would not improve cooperation between North Adams businesses.

### *Matrix Score for Tier II: Building-by-Building Approach*

This approach scored highest in our matrix with 21 points. Though an energy audit done by National Grid would be free, some costs would be incurred in organizing energy-savings seminars and implementing the changes contained in Tier I. However, these costs would again offset the savings on energy bills achieved working at the business level and in conjunction with landlords. There are many financial incentives for the Tier II approach, mainly provided by National Grid, which conducts free energy audits and recommendations and low-cost energy consultations. However, an energy audit would not have an environmental impact if its recommendations were not taken, although it could still offer an educational value, especially when combined with workshops. Few businesses expressed interest in energy audits, even though all had heard of them and applying for an energy audit online is very simple. Significant effort would be needed to organize an educational seminar for the businesses with each landlord. If this meeting were held, it would have large benefits though educating owners and managers and fostering community and coordination between the businesses in each building and throughout downtown North Adams.

### *Matrix Score for Tier III: Green Business District Approach*

This approach scored second in our matrix with 16 points. National Grid offers major incentives for implementing the recommendations of an energy audit by paying 70% of the installation costs and offering interest-free 24-month loans on the remaining 30% (National Grid website 2009). However, even with this generous financing and the major cost savings that would result, struggling small businesses might view significant financial investments upfront as prohibitive. The steps taken after an audit, like switching to renewable energies or retrofitting a business with measures like occupancy sensors and major lighting and insulation upgrades,

would lead to major CO<sub>2</sub> emissions reductions and raise businesses' awareness of impacts. Since the few businesses that had gotten energy audits had not followed through with the recommendations, these measures require substantial support for implementation and would require help from National Grid, organizations like CET, and the municipal government. These major steps could be taken in conjunction with other businesses in the building or in the downtown area, thus building some cooperation between the businesses.

### **PART III: Final Feasibility Analysis and Recommendations**

#### **Reevaluation: New Interview Data**

Our final round of interviews focused on feasibility and a reassessment of our three-tiered approach. Final recommendations made in this report are based on these conversations, our matrix analysis, and previous research. Based our findings, we are still optimistic that a Green Business Plan for downtown North Adams can eventually be successfully implemented, but feel that it is also important to highlight potential obstacles and future steps.

We conducted several important interviews that yielded implications for each of the three tiers. Cup & Saucer provided valuable information for the feasibility of Tier I, the Small Business Approach. David Carver and Peter Ticconi of Scarafoni Associates, the main landlord in our area of focus, were helpful in assessing Tier II, the Building-by-Building approach.

#### *Tier I: Results of Interviews with Cup & Saucer and the North Adams Co-op Bank*

We spoke with Dan Lester, the owner of Cup and Saucer, who shed light onto the dynamics of the small business sector of North Adams. Cup and Saucer is clearly an environmentally-conscious business: labels on the containers for corn silverware and pasta coffee stirrers inform customers about the need to reduce waste by using more 'green' products.

Mr. Lester stated he was the first business to replace environmentally-damaging Styrofoam containers in favor of pricier, biodegradable paper containers. Contrary to our assumptions drawn from case studies, Mr. Lester said there is a green consumer base in North Adams. Many customers express their support for Cup and Saucer's energy-saving and waste-reducing habits, both in the store and through the business's Facebook page. Although Mr. Lester would continue these practices without a recognition program, he believed that such a program might motivate other businesses to take energy-saving steps. A recognition program should commend not only those who reduce energy use under the Green Business Plan, but also businesses such as Cup and Saucer who have already taken such steps. A recognition program might include stickers and plaques presented to businesses by City officials.

#### *Tier I: Implications of Interviews with Cup & Saucer*

The growing 'green' clientele of North Adams described by Mr. Lester would support the environmental practices taken through any tier of a green business program. The fact that some customers choose to patronize a business for their environmental practices suggests that we should include a recognition program in our plan. The presence of this market could propel small businesses to adopt energy-saving measures in order to appeal to this clientele. Furthermore, the City can rely on environmentally-conscious business owners like Mr. Lester to offer support and guidance to other businesses looking to go "green."

#### *Tier II: Results of Interview with Scarafoni Associates*

Scarafoni Associates is the landlord for 14 of the 21 businesses we surveyed. We interviewed Dave Carver, the far more vocal of our interviewees and Scarafoni's Managing Partner, and Pete Ticconi, the Building Operations Manager.

Scarafoni Associates has implemented many energy-saving practices in their buildings over the course of their 30-year ownership of the buildings. Measures are installed only during necessary building renovation; no measures would be taken when the current systems were functional, even if doing so would save energy or money. Scarafoni focuses on replacing the windows of their buildings, because this change creates the largest return on investment. The benefits of window replacement are threefold: replacements take away lead paint, save money on energy bills, and increase tenant comfort. Scarafoni also upgrades lighting in renovations to the most efficient lighting on the market, offsetting the costs of these upgrade in their Pittsfield properties with a rebate from Energy Star through CET.

Mr. Carver did not approach any energy saving measures from an environmental perspective; he said that he did not “believe in global warming” (Personal Communication by Chandler Sherman and Rachel Savain, December 2, 2009). Because he did not believe that greenhouse gas emissions would change the climate, he did not see energy saving practices as environmental.

Scarafoni’s only incentive to save energy, and its primary concern in all aspects of business, is cost. Mr. Carver was not interested in most energy-savings techniques, because he saw the cost of fixing the problems, such as the unpleasantly high temperatures set in some of its buildings, as higher than the potential benefits. This economic emphasis is primarily due to the financial depression of the North Adams business district. The average rent for an apartment in a mixed-use building on Main Street is \$600 per month. If Scarafoni implemented major renovations, they would have to raise rent to an estimated \$2,000 per month to regain their investment, and at that cost the current tenants would not be able to afford to stay (Personal Communication by Chandler Sherman and Rachel Savain, December 2, 2009). Since North

Adam's population is relatively stable, upgrades lead to a "zero-sum game": there is not a market for luxury apartments, so such renovations would be a waste of money (Personal Communication by Chandler Sherman and Rachel Savain, December 2, 2009). The competition from national chains has further destabilized the North Adams small business economy. Mr. Carver noted the lack of community between businesses in North Adams, and attributed this to the evaporation of Mom & Pop stores with the introduction of big box stores.

Scarafoni Associates has relied on financial incentives from CET to install energy-saving measures in their commercial buildings in Pittsfield. The only energy-saving measures Scarafoni took in North Adams were in their low-income housing units, subsidized by government grants. Without specific financial assistance in North Adams, Scarafoni would not take any energy-saving measures in their buildings in the downtown business district beyond window replacement.

Tenants with a long-term lease from Scarafoni must renovate and update their rental space on their own, without financial assistance from Scarafoni. The business must receive approval from Scarafoni to make any changes to their space, but with approval can implement almost any energy-saving practices they would like. Scarafoni had no interest in offering financial incentives for energy savings: giving rebates to businesses to change their lights would be a "bad investment" because Scarafoni would not benefit—tenants pay their own electricity bill (Personal Communication by Chandler Sherman and Rachel Savain, December 2, 2009).

Mr. Carver emphasized that every situation and every building is different: some (like 101 and 85 Main) were heated by steam while others had state-of-the-art heating systems (like the Registry of Motor Vehicles on Main Street). Our Tier II Business-by-Business Approach could be the most flexible with each building's differences.



## *Tier II: Implications of Scarafoni Associates Interview*

The findings from our interview had several implications for the Tier II Building-By-Building Approach. Because of the financial situation in North Adams, a green business plan would not be feasible if the costs of energy-saving techniques are too high. The impetus for implementation will be how cost-effective, not how environmentally beneficial, the techniques are. As Mr. Carver stressed, there must be substantial returns on investments for Scarafoni Associates to consider energy-saving practices (Personal Communication by Chandler Sherman and Rachel Savain, December 2, 2009). Finding funding is critical for proper execution of the proposed blueprint because of the high upfront costs of most energy-saving techniques.

Since tenants must pay for any renovations to their own space, providing financial incentives to tenants is imperative (Personal Communication by Chandler Sherman and Rachel Savain, December 2, 2009). Many tenants are struggling to pay rent and would be reluctant to pay for retrofits without assistance. Another crucial aspect of implementation is leadership. Since Scarafoni Associates is not able to coordinate the implementation of energy saving measures (Personal Communication by Chandler Sherman and Rachel Savain, December 2, 2009), the leadership must come from elsewhere, such as the City, an influential community representative, or a local organization. The leader must show tenants the benefits of energy savings through educational workshops; facilitate the implementation of such techniques; and coordinate interactions between landlords, tenants, and the National Grid. Furthermore, a designated leader would help foster communication among businesses and bring them together around the common goal of reducing energy consumption.

Furthermore, our plan needed to include consideration of the future business climate and the future consumer population of North Adams. Mr. Carver mentioned a decline in small

businesses in North Adams, in part due to the growing number of corporate businesses in the area (Personal Communication by Chandler Sherman and Rachel Savain, December 2, 2009). As small businesses go out of business because of stores like Wal-Mart, Scarafoni loses tenants and thus a significant amount of income. While implementing energy saving techniques may be environmentally beneficial and provide future financial savings, the additional economic hardship may discourage any investment initiatives.

### **Final Recommendations: Next Steps for Each Tier**

Though we initially envisioned our Green Business Plan as a stepping stone method, with each tier taken in sequence and building upon the previous ones, we realize that our plan will be most effective if aspects of all tiers are implemented simultaneously. No tier has sufficient support and leadership to be successful on its own, but by working on recommendations from all tiers to create complementary efforts, support and leadership from business owners, local organizations, and city officials can be combined.

Despite the challenges to its implementation, the Building-by-Building Approach is the best to accommodate the differences between buildings as well as tenants. This approach will have the most environmental impact if it included retrofitting entire buildings. Some of the older and less efficient buildings will be very expensive to retrofit but their improvements would yield significant energy savings. In order for this plan to succeed, the leaders who enact the blueprint must foster interest, form momentum to generate initiatives, find funding to create incentives, and coordinate communication among key players.

### *Tier I: Small Business Approach*

At the small business level, the business owners with the strongest demonstrated interest in protecting the environment through their business practices should take the lead on project steps, in conjunction with CET. These owners, primarily those of Cup and Saucer and Shima, have expressed interest in organizing other interested small businesses into a group of local ‘green’ businesses, and we hope that they continue to work with this interested base and reach out to others to raise awareness of and coordinate businesses’ energy saving practices. CET, Take Charge, and community volunteers could help these small businesses take energy-saving steps on their own and create educational pamphlets about energy saving practices and their benefits to distribute among other businesses. The Green Business Plan should encourage the creation of this ‘green’ small business group to help to build grassroots support for citywide environmental efforts.

### *Tier II: Building-by-Building Approach*

The most important action to be taken for this approach is to secure funding to provide incentives and guidance for the implementation of energy-saving practices. Involved organizations or individuals could work to obtain grants and other outside funding. This funding could help sustain a leadership presence to coordinate community-building educational workshops on energy savings and facilitate the interactions between landlords, their tenants, and the incentive programs in the absence of leadership from landlords. This leadership must also request energy audits for buildings and research the environmental and financial benefits of energy savings to show landlords and business owners the Green Business Program is

worthwhile. Such steps to solidify funding and leadership will help bridge gaps that still remain in this approach and allow the total environmental value to come through.

### *Tier III: Green Business Approach*

Our program will be most credible with the support of the city, and the leadership from Tiers I and II should secure the public support of Mayor Alcombright and the City officials in his administration once they are in office. The Green Business Plan would benefit from working with the Green Communities Act Planning Team that will be established in the near future to implement municipal energy-savings under the Act. Both groups can work simultaneously to cover the commercial and municipal sectors and share resources and guidance. The City, in partnership with CET, should define what steps are needed to qualify a business as 'green' and publicly recognize the businesses that have met or in the future will meet that criterion through a sticker or plaque recognition program. The City could tap into the talented artist community in North Adams, gaining the help of Mass MoCA or MCLA Gallery 51 to create a sticker design. Once this plan has support from the City, we hope that the leadership from the three tiers will work with the City to create financial incentives, like tax breaks for energy-saving practices, to further encourage green business practices.

### **Final Thoughts**

The largest obstacle to starting this plan now is funding and leadership. The City or an organization like CET or Take Charge should apply for state and national grants to fund the implementation and operation of the Green Business Program and the salary for a staff person to oversee this project. Once financially feasible, the recommendations from all tiers should be

implemented simultaneously so that each tier can build momentum to give the Green Business Plan maximum impact. The Green Business Plan will build community in downtown North Adams, save struggling businesses money on their energy bills, reduce the emissions of climate-changing greenhouse gases from the downtown business sector, and raise awareness and interest about environmental issues in the small businesses of downtown North Adams. By building relationships among involved parties at all levels, this blueprint will evolve to truly fit downtown North Adams and contribute to citywide efforts.

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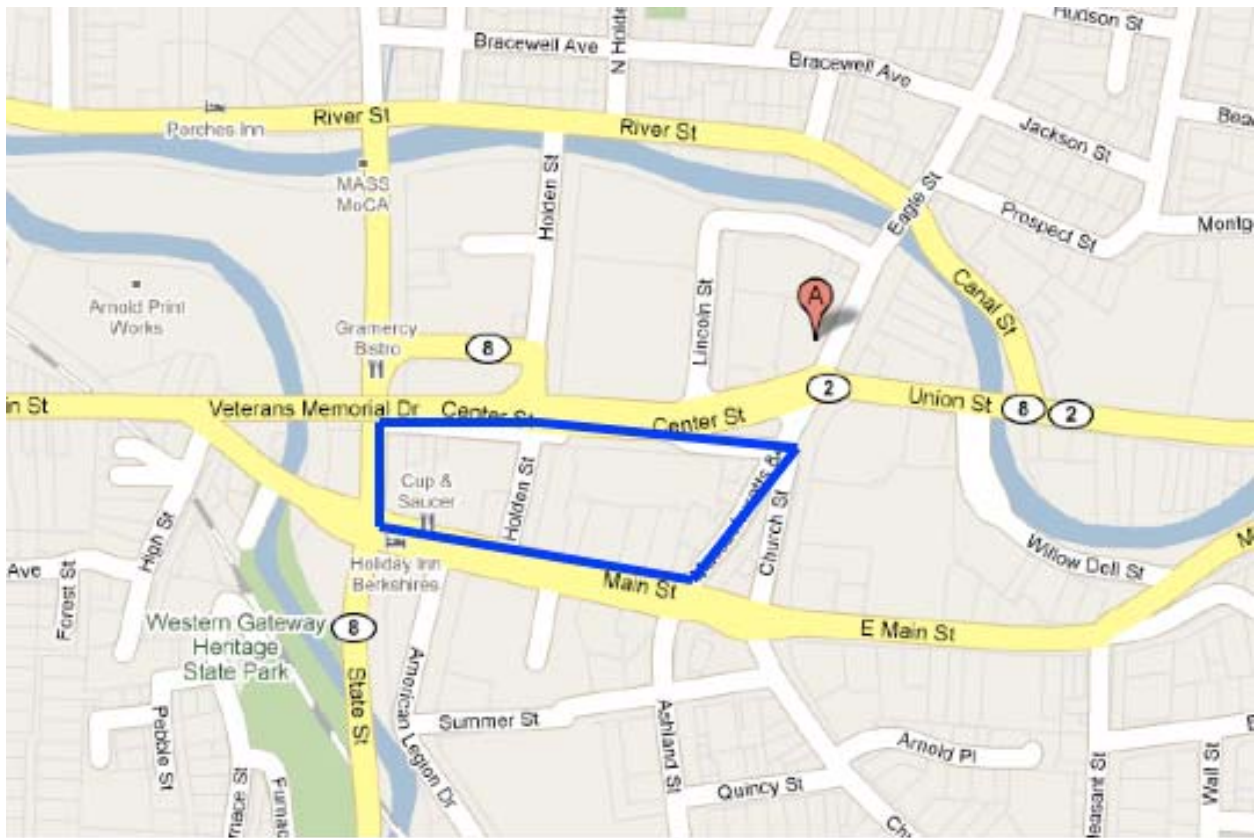
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**Map 1: Area of Focus in Downtown North Adams**



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## Appendix 1: Inventory of Businesses in North Adams

<b>Adams Coop Bank</b>	<b>Shima</b>
<b>Atef Fine Jeweler</b>	Suncatcher
Ballet Center	<b>Tangiers</b>
Barber Shop	Taylor's
Berkshire Bank	The Alley
China Buffet	The Hub
<b>Christo's Pizza</b>	The Mohawk
<b>Claire's Photo Supply</b>	Village Pizza
<b>Computer Bug</b>	<b>Wireless Zone</b>
<b>Crafty Creations</b>	
<b>Cup and Saucer</b>	
<b>Edward Jones Investment</b>	
Fire Jeweler	
Gallery 51	
Gallery Row	
Gramercy Bistro	
Hoosac Bank	
Insurance Agency	
<b>I Got Goodies</b>	
<b>Jack's Hot Dogs</b>	
<b>Kims Kuts</b>	
Main Street Stage Company	
<b>Man's World Salon</b>	
Manuel and Manuel	
Attorneys	
Mass MoCA Kidspace	
Maya III	
Mcclelland's	
<b>Mia's Exchange</b>	
Mouldons (now Gallery)	
Moulton's Pizza	
<b>Moulton's Spectacles</b>	
NA Co-op Gallery	
North Adams Antiques	
Papyrus Books	
Party Place	
<b>Persnickety Toys</b>	
<b>Photoworks</b>	
Registry of Motor Vehicles	
<b>Scarafoni Associates</b>	
<b>Shear Madness Salon</b>	

Key:

**Bold** indicates surveyed businesses

## Appendix 2: Survey to Administer to North Adams Businesses

Hi, we're students working with the Northern Berkshire Community Coalition and Hoosac Bank. We're hoping to learn more about green business practices and are looking into energy usage in downtown North Adams. Can we have a few minutes of your time?

1. Name, address, and phone/email
  
2. Type of business? Please circle the category that applies.
  - a. Retail
  - b. Gallery
  - c. Restaurant/ Grocery
  - d. Services
  - e. Other
  
3. Contact information and position

### Part 1: Energy usage

1. Do you own or rent your space (circle one)? If your business doesn't own it, who does?
  
2. How long has your business been in this location? \_\_\_\_\_
  
3. Are you a part of the Berkshire Chamber of Commerce or any local business association?  
Yes                      No
  
4. Who pays the electricity bill (circle one)?                      Business Owner                      Landlord
  
5. Who pays the heating bill (circle one)?                      Business Owner                      Landlord
  
6. About how much of your business expenses go towards paying your electric bill?  
Over half              About half              1/4              Less than 1/4
  
7. Do you ever find this expense to be difficult to pay?  
Yes                      No
  
8. Have you ever considered using renewable energy? Solar? Wind?  
Yes                      No
  
9. Have you heard of the Center for Ecological Technology? Take Charge? The Williamstown COOL Committee? The Berkshire Blackout? (circle all the ones that you have heard of)
  
10. Have you ever used:
  - a. Compact fluorescent lightbulbs?              Yes              No

b. Energy Star appliances? Yes No

11. Have you heard of:

a. Heating efficiency? Yes No

b. Energy audits? Yes No

Part 2: Current situation

1. Have you taken any measures in your business to reduce electrical energy usage and expenses?

Yes No

2. If so, did you find these measures easy to implement? Why or why not? Who did you work with to make them happen?

3. Do you currently use any of the following energy-saving technologies or techniques in your business? Please check all that apply.

- Turn off lights in rooms not being used
- Turn down heat after business hours
- Turn off lights when business is closed
- Use compact fluorescent lightbulbs (CFLs)
- Turn off computers after business hours
- Have Energy Star rated appliances
- Retro-fitting
- Other (please specify)

4. Would you be interested in learning more about energy-saving technologies or techniques?

Yes No

5. What would allow you to learn more about energy-savings in general?

- Distributed information sheets
- Public education seminars
- Energy consultants visiting your business
- Other (please explain)

About the specific technologies or techniques?

- Knowing where to get them
- Knowing more about their quality
- Knowing more about their costs
- If they were cheaper
- Knowing more about their benefits
- Having more time to research options

6. Have you heard of other businesses taking these steps? Have you discussed this with other businesses?

7. Would you be interested in participating in a green business recognition program? If so, what would encourage you to do so?

Yes

No

Comments:

8. Is there anything else you would like to add?

Thanks for your time! Please see our letter of introduction for contact information.

### Appendix 3: Letter of Introduction to Businesses



Williams College Center for Environmental Studies  
Environmental Planning  
Alisha Cahlan, Madeline King, Sasha Macko, Rachel Savain, Chandler Sherman  
ces1@williams.edu, msk1@williams.edu  
617-529-5469

November 3, 2009

Hello!

We are a group of Williams college students collaborating with the Center for Ecological Technology (CET) in Pittsfield, the Hoosac Bank, and the Northern Berkshire Community Coalition (nbCC) on a proposal for a Green Business Plan for downtown North Adams. This plan will promote energy-efficiency, carbon emissions reductions, and financial savings for businesses by providing resources and support for taking these important steps.

We are currently in the process of surveying and interviewing business owners, managers, and landlords in the main downtown blocks. This information will help us map out a potential Green Business Plan and allow the involved businesses and organizations to move forward to establish this program.

We appreciate your time and input and would be happy to have further conversations about the research we are doing and the eventual proposal for the Green Business Plan. In addition, we can provide information about the current resources available for “greening” your business. Please do not hesitate to contact us with any comments, questions, or concerns!

Sincerely,  
The Environmental Planning Team