

Funding Options for Sustainability Initiatives

An Examination of Resources and Ideas for Hanover, NH

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EXECUTIVE SUMMARY

This report explores a variety of creative ways in which local governments, both in the United States and in foreign countries, have funded projects aimed at increasing their environmental sustainability.

1. INTERNATIONAL SUSTAINABILITY AND ENVIRONMENTAL INITIATIVES

Most of the nations and local governments with the best sustainability programs have federal governments that initiate such programs, and provide local governments for funding for their own. However, many local and municipal governments in foreign countries have found funding resources for their sustainability initiatives beyond simply receiving federal aid. For example, Australia, Norway and Canada have sustainability agreements with local businesses and power companies. Some countries, including Canada and Sweden, have secured funding options that are guaranteed even in times of economic hardship. Such funding options include making small investments in preparation for future projects, and manipulating the tax system to charge people for actions that affect the environment.

1.1 Funding Through Alliances with Businesses

One strategy used in Australia has been to create alliances between businesses and state or municipal governments. Similar attempts have been made in Norway and Canada. In Australia, municipal governments in Victoria wanted to conserve water resources, reduce urban and suburban impact on the environment, lower emissions, and decrease the amount of generated waste. To achieve these goals, they drafted agreements with large local businesses, in which they agreed to reduce their energy use and emissions to various standards. There was no incentive for the businesses to participate, other than the fact that the agreements provided publicity and fulfilled common community goals.¹

The national governments of Norway and Australia currently participate in a larger scale agreement, facilitated by the United Nations, which connects governments and businesses with providers of sustainable services, creating a purchasing alliance. For example, if multiple businesses or local government agencies were looking for efficient construction materials to retrofit their facility in a more sustainable manner, they could purchase them in a consortium, which makes the more expensive, but environmentally friendly, materials more affordable.² This idea could be adopted on a much smaller scale for local governments and businesses in the county, New Hampshire or Vermont.

The Canadian government also partners with power companies and businesses to help fund and promote their sustainability initiatives. An example of how Canada uses the financial support of power companies can be found in the “Commercial and Industrial (C&I) Custom Program,”³ in which the Nova Scotia Power Company “helps commercial and industrial consumers become more energy efficient and save money by implementing a comprehensive electricity savings program.”⁴ While there are examples of similar

projects in many places, this program is unique because the companies and consumers who choose to upgrade to more efficient electrical appliances don't have to bear the burden of the cost. This is important, for the adoption of environmentally friendly energy methods is challenged as a result of the high upfront costs for consumers and industries. Thus, when the Canadian government encourages savings, rebates and other consumer incentives, demand for efficient electrical supplies increases and they begin to be manufactured in greater quantities, a cycle that lowers costs of environmental supplies. While Hanover doesn't have any major power companies, the city does have major corporations that could be used to create a similar program. A financial support system can be implemented by Dartmouth College and/or Dartmouth Hitchcock Medical Center. In addition, to facilitate the system of selling energy saving products to the public, Hanover's local True Value store and Co-Op could enter into partnerships with the town.

1.2 Funding Strategies Used by Local Governments

Many municipal governments throughout the world have creatively used taxes and fees to both fund sustainability projects and modify behaviors that are not environmentally friendly. In Australia and New Zealand, these strategies include:

- variable or 'load-based' license fees for air and water pollution (as seen in New South Wales and Victoria, Australia)
- volumetric water charging
- waste disposal fees
- trading plans for water use
- fishing licenses and fishing quotas⁵
- differentiated vehicle taxes based on fuel efficiency
- an extension of load-based licensing
- a nationwide shift to user charges for urban water
- full-scale system of permit trading for irrigation water
- full cost recovery for landfill⁶

Sweden has long been at the forefront of sustainable practices, and has a radically different taxation system than the United States. The federal government generates revenue to award or use in local projects, and when local governments need further funds, they manipulate the taxation system (which says that only the federal government can levy taxes) by imposing "environmental charges" on a number of things that would normally be considered taxes. These have included:

- a carbon dioxide tax emission charge
- sulfur credit purchasing
- high registration charge for additional family vehicles⁷

1.3 Investment to Fund Long Term Sustainability

Canada funds many of its sustainability projects through investment initiatives that have taken advantage of troubled economic times to create an investment portfolio that, in the long run, is projected to provide returns to fund sustainability. For example, a "Provincial Government committed \$3.3 billion dollars in funding to the City of Calgary, Canada" for sustainability projects by investing \$301.5 million dollars in principal. This idea can

be applied in areas like Hanover. Securing financial funding for the future can be accomplished by investing small amounts now.⁸

2. NATIONAL SUSTAINABILITY AND ENVIRONMENTAL INITIATIVES

The movement to protect natural resources and implement environmentally sustainable practices has swept across the United States. Numerous towns and municipalities have implemented programs to encourage sustainable practices. The scope of projects is extensive, ranging from upgrading streetlights to increasing the amount of recycled waste. All the cities that we looked at are members of the International Council for Local Environmental Initiatives (ICLEI). ICLEI was founded in 1990 to help towns and municipalities plan sustainability and environmental projects, and also to aid those towns in finding funds for their ideas. Beyond ICLEI, towns and municipalities have put into place policies to reduce their environmental impact and increase community sustainability.

2.1 Boulder, Colorado

Boulder has become a leader in the U.S. sustainability movements after becoming a member of ICLEI. In 2002, Boulder adopted the Kyoto Protocol, and in accordance with the Protocol, the City Council and Office of Environmental affairs seek to reduce greenhouse gas emissions.

- In 2006, the Climate Action Plan (CAP) was implemented to combat climate change through reduction of greenhouse gas emissions.
- To fund it, Boulder became the first city in the nation to tax energy use.
- CAP reduced community emissions through energy auditing, insulation encouragement through rebates, the provision of household conservation kits, and encouraging residents to drive less by providing bikeways and crosswalks.

2.2 Cambridge, Massachusetts

Cambridge has been part of ICLEI since 1999 and has been heavily involved in the Cities for Climate Protection Program.

- Cambridge has been working to reduce air pollution through its ICLEI “No Idling Campaign” and retrofitting school buses. EPA’s Region 1 and 2 funded the program, as part of the Northeast Diesel Collaborative. Cambridge also received funding from MassCleanDiesel, a statewide program that seeks to improve air quality for children.⁹

2.3 Burlington, Vermont

Burlington has been a member of ICLEI since 1996 and has created the Legacy Project in its efforts to become a more sustainable and environmentally friendly city. To reach its goals, Burlington:

- Seeks to involve the government, business community and non-governmental organizations, as well as increase education and the role of youth
- Aims to reduce harmful air emissions by encouraging biking and pedestrian practices and minimizing the use of fossil-fueled vehicles

- Decreases its environmental impact through composting with Intervale Compost, Vermont's largest composting operation: a partnership between the non-profit organization, the Intervale Foundation, and the Chittenden Solid Waste District
- Supports the Fletcher Allen Health Care in carting nearly 500 pounds of its kitchen wastes to the compost. Other food organizations, like the Perry Restaurant Group and Ben and Jerry's, save up to 70 percent on "tipping fees" by sending wastes to Intervale.¹⁰

2.4 Keene, New Hampshire

Keene has been a member of ICLEI since 2000 and is also a member of the Cities for Climate Protection program.

- Keene participated in the "10% Challenge", a voluntary program to help businesses reduce greenhouse gas emissions by at least ten percent. A partnership between ICLEI-Local Governments for Sustainability, Clean Air-Cool Planet and Keene's Cities for Climate Protection Committee, the program provides the tools and information necessary for businesses to conserve energy and reduce emissions.
- As of 2007, Keene has pledged to reduce its greenhouse gas emissions by 20 percent by the year 2015, becoming the first city in the nation to pilot an ICLEI program to see how well cities can adapt to climate change.¹¹ As of May 2007, Keene town planners drafted a resulting report that examines the city's vulnerabilities.¹²

2.5 Portsmouth, New Hampshire

Portsmouth is a member of Cities for Climate Protection. Since the issue of sustainability was identified in the 2005 Town Master Plan, Portsmouth has implemented many policies and initiatives.¹³ In 2006, Portsmouth conducted sustainability workshops for City staff, Councilors, land use board members and community members.¹⁴

- In 2007, Portsmouth implemented a new recycling program. The program sends roughly 52 percent of waste to be recycled, which has saved the city \$450,000. Although the source of initial funding for the program is unclear, Portsmouth has evidently recouped the upfront expenditures.
- In 2008, Portsmouth encouraged residents about a program to recycle used cooking oil and grease. Green Bean Bio-Fuel Company transports the oil from Portsmouth to the company's facility in Maine for refining for free.
- At the end of 2008, Portsmouth replaced lighting fixtures at the High-Hanover Parking Garage as part of a Public Service of New Hampshire (PSNH) energy-saving program. The project involved replacing 275 light fixtures in two phases, a move that was expected to result in an energy savings of at least 25 percent.
- Portsmouth installed energy efficient motors and drives on three new wastewater pumps using a rebate of over \$80,000 from PSNH through its New Equipment and Construction program.¹⁵

3. RESOURCES FOR HANOVER

This survey of worldwide and national sustainability initiatives indicates that Hanover has several options for generating funding for sustainable initiatives and increasing technical and informational support. Hanover can look into the Public Service of New

Hampshire for funding options. In addition, similar to international efforts in Australia and Sweden, Hanover can creatively maneuver the tax and fee system in order to raise funds for sustainability programs and provide incentives for more sustainable behavior.

3.1 Public Service of New Hampshire (PSNH)

PSNH offers many programs through which customers can strive to increase their efficiency and sustainability. For example, the town of Portsmouth took advantage of some particular programs (New Equipment and Construction Program), but there are many others available (Smart Start Program).

PSNH's municipal customers have the opportunity to install energy saving measures with no upfront costs through PSNH's Smart Start Program.

- The Program pays for the purchase and installation of approved energy saving measures for its municipal customers. A Smart Start Purchase and Installation Charge, calculated to be less than the monthly savings, is added to the monthly electric bill until all costs are repaid. This process allows municipal customers to become more efficient without having to pay immediately. Instead, they enter into a partnership with PSNH, paying off the amount of the installed technology and measures in fractions.¹⁶ This program could be a potential resource for Hanover.

PSNH offers rebates to municipal, commercial and industrial customers who are undertaking new construction, major renovations, or equipment replacements under its New Equipment and Construction Program, a program utilized by Portsmouth.

- The Program offers prescriptive rebates for customers who install energy efficient equipment at their facilities. Technical assistance is also offered through the New Equipment and Construction Program, including project evaluation to identify and install premium energy efficient equipment.¹⁷

3.2 International Council for Local Environmental Initiatives

Hanover could consider becoming a member of the ICLEI. ICLEI membership would provide Hanover with valuable resources and support for further environmental and sustainability efforts. An example of ICLEI programs is the Cambridge “No Idling Campaign” discussed above. The ICLEI provides technical consulting, training, and information services to share knowledge and support local governments in sustainable development. Hanover can become a member of the ICLEI by filling out an application form and paying annual dues. Since Hanover’s population is less than 50,000, the projected dues would be \$600. As a member, Hanover would agree to adopt a resolution to increase sustainability practices, specifically around climate change.¹⁸

3.3 Environmental Protection Agency, Region 1: New England

Region 1 of the EPA serves the New England area. Region 1 EPA offers grants and other funding opportunities surrounding specific projects. The EPA can serve as a resource for project ideas and funding resources.¹⁹ In the Guidebook of Financial Tools, the EPA suggests fees and taxes that local governments can enact in order to fund certain projects. Some of the fee ideas are: professional certification fees and connection fees. States and municipalities can charge companies and individuals for the privilege of obtaining

specific professional certifications in areas such as construction management. A connection fee is a charge on property owners when they connect to existing municipal drinking water and wastewater treatment facilities. A tax that could be implemented is the energy tax.²⁰ Energy taxes are extra charges on utility bills. The EPA Guidebook of Financial Tools offers many other fees and taxes that Hanover could implement to pay for sustainable practices and would also provide incentives to become more environmentally friendly.

APPENDIX: INTERNATIONAL FUNDING INDEX

Australia

Drafted agreements with local businesses

<[http://www.dse.vic.gov.au/CA256F310024B628/0/0D4C1DCF6A717028CA2573280018F0BF/\\$File/Victorian+Local+Sustainability+Accord.pdf?>](http://www.dse.vic.gov.au/CA256F310024B628/0/0D4C1DCF6A717028CA2573280018F0BF/$File/Victorian+Local+Sustainability+Accord.pdf?>)

Larger scale agreements with companies: Ex UN contracts

<<http://webapps01.un.org/dsd/partnerships/public/partnerships/120.html>>

Norway

Drafted agreements with local businesses

<<http://www.regjeringen.no/en/dep/fin/Selected-topics/Taxes-and-Duties/The-history-of-green-taxes-in-Norway.html?id=418097>>

Larger scale agreements with companies: Ex UN contracts

<<http://webapps01.un.org/dsd/partnerships/public/partnerships/120.html>>

Canada

Financial Support of Power Companies: "Commercial and Industrial (C&I) Custom Program" <<http://www.sustainability-unsm.ca/funding-opportunities.html>>

City Investments: "City of Calgary, Canada"

<<http://content.calgary.ca/CCA/City+Hall/Business+Units/Recreation/About+Recreation/Policy+and+Planning/Recreation+Municipal+Sustainability+Projects.htm>>

Sweden

Manipulates Taxation System: Imposed Environmental Charges

<<http://www.naturvardsverket.se/en/In-English/Menu/Legislation-and-other-policy-instruments/Environmental-instruments/Four-kinds-of-instruments/Economic-instruments/Environmental-taxes-and-charges/>>

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EPA

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<http://www.calgary.ca/portal/server.pt/gateway/PTARGS_0_0_395_203_0_47/http%3B/content.calgary.ca/CCA/City+Hall/Business+Units/Recreation/About+Recreation/Policy+and+Planning>
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