Funding Your Green Project
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Overcoming the Financing Hurdle

Green project planning can be stressful! The variety of funding sources can be overwhelming and many businesses miss out on opportunities to complete, or even start, green projects because they are unaware of the funding options available to them. This guide is intended to remove stress from the process and provide a resource for discovering opportunities to make your green project financially viable.

This guide describes several sources of funding, provides advice for receiving funding and provides resources for accessing funding. It is intended to give a general overview of funding available and provide guidance towards the funding that best fits the needs of your business.

A difficulty associated with writing a guide on finding funding is that sources are frequently changing. A great deal of funding is available through government and community organizations and as government policies and the economy changes, the funding changes as well. Incentives, especially those sponsored by, state and local governments and utilities are in a constant state of change, and may have expiration dates or application deadlines. Therefore, some independent research is recommended, in order to discover eligibility requirements and guidelines. This guide provides you with easy access to these resources.
Success Story: The Hill Store in Belleville Pennsylvania

In 2004 Tom and Ann McNabb purchased an 1853 general store with plans to refurbish it and open The Hill Store, in Belleville, Pennsylvania. The couple began searching for funding for several expensive projects including installing a new, more efficient boiler and adding centralized air to the building. Tom contacted the Penn State Small Business Development Center Environmental Management Assistance Program where an Environmental Specialist recommended various state funding opportunities. Tom was awarded the PA Small Business Advantage Grant through which he was reimbursed half of the cost of his energy efficiency upgrade, a $500 rebate for his heating system upgrade as well as a second $500 Appliance Rebate. Tom also applied for the PA Advantage Grant and received $7,400. With money from their grants, the couple also decided to install insulation to improve the building’s energy efficiency. By the end of the summer of 2007 the building had 2 tenants. The McNabbs have seen savings of $5,179 annually and the payback period for their energy-savings project was only 9 months!1

**Types of Funding:**

This section of the guide is intended to introduce you to types of funding available to small businesses. This section defines types of funding and provides examples to understand how these funds can be utilized.

**Tax Incentives**

Both state and federal governments utilize tax incentive options in the form of deductions, credits, and rebates to encourage businesses to invest in renewable energy and energy efficiency projects. The American Recovery and Reinvestment Act of 2009 provides tax incentives for a wide variety of projects. These incentives can be utilized to reduce the cost of energy efficiency projects, renewable energy, green building, and alternative fuel projects among other things. Many green building projects are also eligible for depreciation deductions, which allow for accelerated depreciation of energy property. Businesses can access IRS databases or consult with their tax preparer to apply for these incentives.

**Example: Energy Efficient Commercial Business Deductions (Section 179D)**

One example of a federal tax deduction is the Energy Efficient Commercial Business Deduction. Using this deduction, businesses can deduct up to $1.80 per square foot of space in new or existing buildings when they reduce power usage by 50% compared to a reference building by installing interior lighting, HVAC or hot water systems, or building envelope property. A $0.60 per square foot deduction is available for certain lesser reductions.

**Rebates**

As of 2013, the Database of State Incentives for Renewable Energy (DSIRE) had documented 20 rebate programs for green projects, administered by state or local utilities for Pennsylvania alone. Rebates for your green project are also available from local and federal governments. The Department of Energy’s Office of Energy Efficiency offers rebates for the installation of solar photovoltaic technology, solar water heating, wind systems, and biomass power systems. Sources offer two types of rebates. The first is for the purchase price of green

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equipment and the second is for the performance of this equipment.\textsuperscript{8} These rebates vary from state to state. In Pennsylvania Duquesne Power and Light provides rebates for the purchase of CFL bulbs and Energy Star certified appliances\textsuperscript{9} and Philadelphia Gas Works provides rebates for larger projects, which improve natural gas efficiency for businesses.\textsuperscript{10}

**Example: Duquesne Power and Light Energy Efficiency Rebates:**

One specific rebate offered by Duquesne Power and Light in Western Pennsylvania is a $75 rebate for the installation of exterior lighting with a timer. Duquesne Power and Light also offers rebates for hundreds of efficient light fixtures and other commercial appliances, which improve efficiency. These rebates have a fairly simple application process and typically take three months at most to receive.\textsuperscript{11}

**Grants**

Companies interested in green projects can apply for grants from several government sources including the U.S Environmental Protection Agency,\textsuperscript{12} The Small Business Administration,\textsuperscript{13} The Economic Development Administration and the U.S Department of Agriculture.\textsuperscript{14} These grants are available for numerous projects including green product development, creation of jobs in green fields, green innovation, improving energy efficiency, development and usage of renewable energy, and research and development.\textsuperscript{15} Grant funding is unique in that it is usually awarded with the intent that it be spent on a specific project. Grant applicants are required to write a project proposal and then track and report all funds spent. Receiving grant funding does require some additional work, however in the long-term it can be rewarding as it does not have to be repaid and often can be a source of funding year after year.\textsuperscript{16}

**Example: Small Business Innovation Research Grants (SBIR)**

The U.S Department of Energy has an annual small business grant dedicated to the research and development of green products. This grant includes three phase lasting one year.

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each. These phases include: proposal writing, training and award of the grant. This grant can be awarded for up to $1,000,000 upon completion of all three phases. These grants are only awarded to independently owned small businesses (defined as having less than 500 employees) interested in conducting research. 18

**Loans**

Traditional mainstream loans are available for green projects and are becoming more and more commonplace. There are also a variety of state, local, and federal government loans dedicated specifically to green projects for small businesses. In 2012 alone the federal government issued $3.6 billion to 70 development organizations nationwide. In most of these cases the government has partnered with private banks such as PNC Bank in order to distribute these funds. 19 Small Business Administration offices are also involved in the distribution of government loans. 20

Several private banks also provide additional loans specifically for green projects. Since 2005, Wells Fargo, PNC, and Bank of America have all set aside funding specifically for businesses interested in conducting green projects. 21

While most microfinance loans are typically dedicated to new entrepreneurs in developing communities, 22 there are also specific microfinance companies, which target businesses looking for small loans to fund green projects. 23

**Example: SBA 504 Loans:**

The United States Small Business Administration 504 Loan program allows small businesses to benefit from loans as well as for the development of local economies. In this program the SBA partners with banks. The SBA provides loans for up to 40% of the total project costs and the bank provides up to 50%. The business owner is then required to fund 10-20% of the total project costs. These loans benefit the business because they allow for longer loan amortization and fixed interest rates. 24

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Investors

Investors in the last few years have begun to pay more attention to a company’s green initiatives. Impact investors often will be more likely to invest in a company in order to support their green projects.25 A venture partner also can often provide resources in addition to financing, such as research and marketing connections to a smaller or start up business that they would often otherwise not have access to.26

Example:

Bridgeway Capital is a resource for businesses to find many sources of funding, however one specific service provided by this group is connecting small businesses with investors. Specifically Bridgeway Capital works with investors who are interested in community development.27

Energy Service Companies and Leasing of Green Equipment

There are several options available for businesses who are interested in utilizing green or energy efficiency equipment, but are hesitant to make the initial investment. An energy service company (ESCO) specializes in managing the process of developing, installing, and financing energy efficient equipment. Businesses then use their energy savings to make repayment on their financing. Most ESCOs also assume the risk in the case that the equipment does not decrease energy costs for the business.28

A second option is for businesses to lease green or energy efficient equipment. Leases are available from private companies for green transportation, electrical and lighting equipment, alternative energy equipment, power equipment, manufacturing equipment, and even commercial real estate. Businesses that lease equipment also are able to update this equipment more often and avoid using obsolete equipment.

Example: Renewable Energy Equipment Leasing (REEL)

REEL assists businesses with finding energy efficiency equipment for lease and fund these leases. REEL connects businesses with everything from commercial real estate, to the leasing of green buildings, to photovoltaic equipment.29

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Renewable Energy Credits (RECs)

A company that invests in the generation of renewable energy, for example solar or wind energy, has the option to sell renewable energy credits. One REC is equal to 1000-kilowatt hours, or 1-megawatt hour of electricity placed on the grid. These credits vary in value based on government environmental policies as well as the economy.

Additionally, companies that produce more energy than they use have the option to sell energy to their local electricity provider. In Pennsylvania, Duquesne Power and Light installs a net meter at no cost to the customer, which monitors electricity generated and added to the power grid.

Example: Pennsylvania AEPS Alternative Energy Program

An example of a REC available in Pennsylvania is the Pennsylvania AEPS Alternative Energy Program. This program connects businesses and residents who are generating their own energy with programs that will purchase renewable energy credits. These credits range in value but the average value of a credit for 2012 is $180.39.

Success Story: Ideal Self Storage in Hummels Wharf, Pennsylvania

Ideal Self Storage is a storage facility located in Hummels Wharf, PA that provides clean, secure storage units. Gerald Stauffer and Dennis Brubaker, joint partners of Ideal Self Storage, were seeking to install a 15.12 kW solar photovoltaic (PV) system to provide electricity at their facility. This system would be interconnected with the electric grid utility.

Gerald and Dennis contacted the Pennsylvania Small Business Development Center’s (SBDC) Clean Technology Resource Center (CTRC) to help start cutting utility costs. The CTRC Technology Consultant made several recommendations about ways energy costs could be reduced. After carefully reviewing their options, Gerald and Dennis worked with a contractor who drew up a plan to install a 15.12 kW solar PV system. The solar PV system will produce up to 1,233 kWh of power per month offsetting a portion of the 3,591 kWh of power provided by the utility company. The solar PV project was estimated to cost about $67,247. However, in order to complete this project, Gerald and Dennis needed funding assistance to offset the cost.

Once again Gerald and Dennis contacted the PA SBDC CTRC Technology Consultant for assistance with funding opportunities for their solar PV project. The CTRC Technology Consultant informed Gerald and Dennis of the U.S. Department of Agriculture (USDA) Rural Energy for America Program (REAP) Grant, the PA Department of Environmental Protection (DEP) Sunshine Grant, Federal Tax Incentives, and Solar Renewal Energy Credits (SRECs). Gerald and Dennis applied for and were awarded a USDA REAP Grant for the amount of $13,499. Their solar installer assisted them with the PA Sunshine Grant for the amount of $10,060, and their CPA helped them receive the federal tax credit for the amount of $20,173. Ideal Self Storage has plugged in their solar PV project and it is currently generating electricity!

Through the innovative and proactive approach towards achieving greater energy efficiency, Gerald and Dennis have demonstrated a commitment to the public’s best interest. With limited renewable fuel resources, every effort made to reduce energy consumption helps ensure that there is some left for future generations.

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Resources for Finding Funding:

The previous section was intended to assist you in understanding the wide variety of types of funding. Next, it is important that you know what resources are available to assist with finding this funding and with the application process.

While the majority of the sources listed below are limited to Pennsylvania, it is important to know that most states have similar resources. These resources can be found through the DSIRE database, as well as through the United States Small Business Administration.

**Bridgeway Capital**

Bridgeway Capital is a non-profit organization in the Pittsburgh area, which is committed to stimulating economic development through providing loans for small businesses. Bridgeway also provides green loans for energy efficiency and green building projects. Bridgeway Capital can be found at: [www.bridgewaycapital.org](http://www.bridgewaycapital.org).

**DSIRE:**

DSIRE is a comprehensive database for finding funding. DSIRE allows the user to search for funding, state-by-state and even by specific cities. It provides information on grants, loans, rebates, tax incentives, and energy credits both private and government funded. This database also provides an extensive library on renewables and information on applying for funding. DSIRE can be found at: [http://www.dsireusa.org/](http://www.dsireusa.org/).

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Duquesne Light

Duquesne Light provides a wide variety of sources for both businesses and residents of Western Pennsylvania to fund green projects. The utility provides rebates for energy efficiency equipment and directs businesses towards other sources of funding including loans and grants. Many other regional utilities provide similar resources. Duquesne Power funding information can be found at:

https://www.duquesnelight.com/wattchoices/default.cfm?tab=2&win=main

Pennsylvania Department of Community and Economic Development

The Pennsylvania Department of Community and Economic Development provides a wide variety of resources for small businesses, including loans and other sources of funding. Specifically for green projects, The Pennsylvania Department of Economic Development has their Pollution Prevention Assistance Account Program (PPAA). This account provides funding for energy efficiency and pollution prevention projects and will provide loans for up to 75% of the costs of the project up to $100,000 for small businesses of less than 100 employees. The Pennsylvania Department of Economic Development can be found at: www.newpa.com

Pennsylvania Department of Environmental Protection

For businesses within the state of Pennsylvania, The Pennsylvania Department of Environmental Protection provides businesses access to project funding from both state and federal government. This source provides access to grants, loans, as well as financial planning tools for projects. This can be found at:

http://www.portal.state.pa.us/portal/server.pt/community/funding_opportunities/10488

Several other states also have web pages for their departments of environmental protection which direct businesses to sources of fund.

Small Business Administration

The United States Small Business Administration (SBA) is also a source for businesses to find funding for their green projects. While SBA is not a direct lender to businesses, this administration does assist small businesses with gaining access to grants and loans. Links to this

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data can be found at: http://www.sba.gov/category/navigation-structure/loans-grants. The SBA also has state offices to assist businesses with receiving SBA funding.

**Small Business Innovation Research (SBIR):**

The United States Environmental Protection Agency connects small businesses interested in conducting research with several sources of funding including investors, grants and loans, mostly for the funding of research. SBIR can be accessed at http://www.sbir.gov/

**The Sustainable Energy Fund**

The Sustainable Energy Fund exists to provide financial aid to small businesses and other organizations seeking to reduce their energy consumption. This funding is provided primarily in the form of loans. The Sustainable Energy Fund also provides education to organizations on methods for reducing energy consumption. The Sustainable Energy Fund can be found at: http://www.thesef.org.

**Urban Redevelopment Authority**

The Urban Redevelopment Authority is a resource for Pittsburgh businesses to gain resources necessary for success. Specifically for green projects, the Urban Redevelopment Authority offers small grants for energy audits as well as financing for energy efficiency projects. The Urban Redevelopment Authority can be found at: www.ura.org

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Success Story: McGinnis Special Foods Store in Pittsburgh Pennsylvania

Ms. Noreen Campbell and her two sisters own and operate McGinnis Special Foods Stores, a family owned business since 1946. In 1981 the three sisters, Bonnie, Sharon, and Noreen assumed full ownership of the company with three locations in two counties just outside the City of Pittsburgh. McGinnis Sisters is a well known grocery store providing high standards for quality, competitive pricing and excellent service.

In 2008 Noreen attended an energy workshop sponsored by the DEP. She met Lee Ann Briggs, environmental consultant with the University of Pittsburgh Small Business Development Center’s (SBDC) Environmental Management Assistance Program (EMAP). Ms. Campbell was interested in upgrading the then existing T-12 fluorescent lighting fixtures with magnetic ballasts and incandescent lighting fixtures to high efficiency T-8 fluorescents with electronic ballasts and CFL throughout their 20,000 SF Monroeville facility.

The SBDC was instrumental in informing Ms. Campbell of the potential opportunity available to her through the Department of Environmental Protection’s Small Business Advantage Grant (SBAG). The environmental consultant assisted Ms. Campbell with completing the grant application. In October 2008, DEP awarded McGinnis Sisters their requested full eligible amount of $7,500.

Installation activities were completed in the fall of 2008. The total project cost was $20,124. McGinnis Sisters committed to pay $12,624.

Upgrading the T-12 fixtures and incandescent to T-8 fixtures and CFL, respectively will result in an annual savings of approximately 88,585 kWh of electricity or $7,643. These savings along with the grant will provide a payback in 1.6 years. In addition to the savings on kWh and associated economics, the upgrade will result in emissions reductions of 70.17 tons annually.

Monies received from the grant provided the McGinnis Sisters the opportunity to put additional capital into other important upgrades, such as new high efficiency Energy Star® qualified HVAC units illustrating that energy savings do in fact have a multiplier effect.

Lighting upgrades will save the McGinnis sisters $7,643 annually.  

10 Tips for Funding Your Green Project:

In the journal GreenBiz.com, Shari Shapiro writes the following ten tips for receiving funding for your green project:

1. **Find a bank or financial institution committed to green projects.** Many banks now have financial arms that are dedicated to financing renewable projects.

2. **Pick a model.** It's easier to tweak an existing project finance model than to create a new one from scratch. Construction? Equipment?

3. **Recognize the need for tweaks.** Whatever the model (see No. 2), it will need to be tweaked for the unique features of green building and renewable projects.

4. **Set out the deal terms in advance,** particularly the obligations of the parties in the event of default.

5. **Identify and address the roles of the lender and borrower** with respect to any incentives or other government financing that is part of the project. Each incentive has its own requirements regarding transferability and assignment, and ownership status is often an important factor.

6. **Make sure your green project pencils out.** Seems simple and obvious, but when seeking financing, it is important that the project actually be a wise investment.

7. **Provide as much data about the beneficial financial features** of the green project as possible. The growing body of data about the financial benefits of green buildings and the balance sheets of renewable energy projects should enable borrowers and lenders to better evaluate the risks and benefits of green projects.

8. **Where available, use green specific financing tools,** like energy efficient loans.

9. **Be prepared to cross-collateralize.** There is so much risk aversion that many financial institutions seek cross-collateralization of non-green projects to alleviate the fear, real or imagined, associated with financing green projects.

10. **Acknowledge a longer financing timeline.** Getting all parties on the same page regarding the financing deal and the documentation may take longer than traditional projects. But, as lenders and borrowers get more projects under their belts, this timeline will shorten.
Shapiro also writes that banks and other lending institutions often do not yet have structures in place for funding green projects. For this reason, businesses requesting loans for green projects often have to go into much greater detail when writing a business proposal for funding. Oftentimes, businesses searching for funding for a green project will have to seek a variety of different types of funding, for example rather than paying for a project only using loan funds, a business may need to add grant funds and rebates as well in order to fund the project. 45

Success Story: Geochemical Testing in Loretto, Pennsylvania

In the summer of 2008, Tim Bergstresser bought Geochemical Testing, along with all the buildings and ancillary equipment associated with the business. Eager to continue the company’s success, Tim was interested in making energy improvements to his office space and laboratory. In particular, he was looking to convert to one large walk-in from his less efficient multiple double-door bottle coolers and small walk-in cooler by consolidating his analytical sampling cooling capacity.

Upon a recommendation from his business consultant at the Saint Francis University Small Business Development Center (SBDC), Tim went to SBDC’s EMAP program, for advice.

After conducting an on-site energy assessment, the consultant suggested he make other upgrades in addition to cooler consolidation, including the installation of high efficiency lighting fixtures, occupancy sensors, LED exit signs, and programmable thermostats.

In addition to providing valuable input, the program was also instrumental in informing Bergstresser about opportunities that were available to him through the Department of Environmental Protection’s (DEPs) Small Business Energy Efficiency Grant (SBEEG), a program that provides 25 percent matching grants of up to $25,000 for eligible projects.

Through SDO’s assistance, Bergstresser submitted the SBEEG grant application, focusing solely on the purchase and installation of a new larger walk-in cooler. Bergstresser’s SBEEG grant application request for $18,247 was approved in the fall of 2009, with the total project costing $72,986.

The upgrade to the more efficient and larger walk-in cooler results in annual savings of over 18,120 kWh of electricity and over $1,800 savings in annual costs. In addition to the conservation of electricity and business costs, the upgrade also reduces emissions by over 14 tons over the course of a year.46

Bibliography:


<http://www.dsireusa.org/>.


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