



EnergyWorks

ENERGY EFFICIENCY IMPROVEMENTS



EnergyWorks Loan Fund:

Loan Application Instructions and Important Information

EnergyWorks Loan Fund

Table of Contents

Part 1. Overview	1
A. Introduction	1
B. Goals and Objectives	2
Part 2. Instructions For The Initial Financing Request Form	2
Part 3. Instructions For The Building Energy Loan Application Form	3
A. Introduction.....	3
B. Completing the <i>EnergyWorks Building Energy Loan Application Form</i>	3
C. Consultation with Local Government Officials.....	5
D. Submission of the Application	5
E. Questions	7
Part 4. Applicant’s Responsibility to Provide Additional Information During the Loan Underwriting Process	7
A. Introduction.....	7
B. Documents that an Applicant will Need to Provide during the Underwriting of a Loan.....	7
Part 5. Guidelines and Requirements for Quantifying Energy Savings	8
A. Introduction.....	8
B. Limited Energy Retrofits in an Existing Occupied Building.....	9
C. Extensive Energy Retrofits in an Existing Occupied Building.....	10
D. Energy Measures in the Gut Rehab of an Existing Unoccupied Building.....	11
E. Reporting Energy Consumption Data with <i>Portfolio Manager</i>	13
Part 6. Federal, State and Local Government Requirements	13
A. Introduction to ARRA and EECBG	13
B. Prohibited Uses of Funds	14
C. Nondiscrimination Provisions	14
D. Equal Opportunity Provisions	14
E. Davis-Bacon Act.....	15
F. National Environmental Policy Act (NEPA).....	16
G. Historical Preservation Provisions.....	16

H. Waste Stream Requirements	17
I. Buy American Provisions	18
J. Access to Records	18
K. Records Retention	18
L. Access to Information	18
M. Disclosure of Political Contributions.....	19
N. Prohibition on Lobbying.....	19
O. Monthly and Quarterly Reporting Requirements.....	19
P. Requirements for Reporting Future Energy Consumption	19

For more information about the EnergyWorks Loan Fund and for copies of the key program documents, visit the EnergyWorks website:

<http://EnergyWorksNow.com/for-your-business/>.

EnergyWorks Loan Application Instructions and Important Information

PART 1. OVERVIEW

A. Introduction

This document provides instructions and other important information about the EnergyWorks Loan Fund. The EnergyWorks Loan Fund (“EnergyWorks”) provides financing for building energy projects located in Bucks, Chester, Delaware, Montgomery counties and the City of Philadelphia. Eligible applicants include owners and developers of commercial, nonprofit, government, industrial and multi-family buildings.¹

EnergyWorks is jointly managed by The Reinvestment Fund (“TRF”) and the Philadelphia Industrial Development Corporation (“PIDC”). Funding for the EnergyWorks Loan Fund is provided in part by the U.S. Department of Energy (“DOE”) through the Better Buildings Program grant that DOE awarded to the Metropolitan Caucus, a project of the commissioners and council members of the participating counties and the City of Philadelphia.



There are three types of energy projects² that can be financed with these energy loans:

- Projects involving limited energy retrofit measures or the replacement of equipment in an existing, occupied building.
- Projects involving extensive energy retrofit measures in an existing, occupied building.
- Projects involving the gut rehab of an existing building that is either currently unoccupied or will be renovated for a different usage.

Financed projects must reduce energy consumption by 25% or more. PART 5 of this *Instructions* document explains the energy savings goal for each of the different types of projects.

EnergyWorks offers construction loans, term loans and lease financing. Loan amounts will range between approximately \$100,000 and \$2,500,000. The term of the loans will be consistent with the life of the improvements financed, up to a maximum amortization of 15 years. The interest rate will be set on a case-by-case basis and will depend on several factors, but can be as low as 3.5% depending on the circumstances of the individual loan. Loans will be secured by the assets being financed or other collateral (including personal and corporate guarantees) as may be required by the fund managers.

Loans will be awarded in the order they successfully complete the financial underwriting and energy analysis due diligence work and have their loan requests approved by the TRF and PIDC loan committees.

¹ In addition to building energy loans for commercial buildings, EnergyWorks has a large residential program to help homeowners improve the energy efficiency of their homes. Please visit the EnergyWorks website (www.EnergyWorksNow.com) for more information about the additional EnergyWorks programs.

² Initially the EnergyWorks program was able to offer financing for new construction projects, but those dollars have been expended and new construction is no longer an eligible use for the remaining EnergyWorks capital.

Because much of the capital for this energy lending came from the American Recovery and Reinvestment Act, loans will be subject to several important federal requirements. These requirements are addressed in PART 6 of these *Instructions*. These required provisions will be part of all loan agreements.



Applications are now being accepted. Please review this entire document carefully before submitting an application to EnergyWorks.

B. Goals and Objectives

The objective of the EnergyWorks building energy loan funds is to provide at least \$25 million of financing for building energy projects throughout southeastern Pennsylvania that will reduce energy consumption in the financed buildings by 25% or more.

The broader goals of EnergyWorks are to reduce fossil fuel energy consumption in buildings, promote energy efficiency and conservation in buildings, create and/or retain jobs, stimulate economic development and leverage private investment in clean energy.

The over-arching goals of the American Recovery and Reinvestment Act include:

- Maximize job creation and economic benefits;
- Spur further economic investment;
- Improve energy efficiency;
- Stimulate the economy through measures that modernize the Nation's infrastructure;
- Expand educational opportunities and access to health care; and,
- Ensure that funded projects can be quickly implemented.

PART 2. INSTRUCTIONS FOR THE INITIAL FINANCING REQUEST FORM

Before an interested person completes the full loan application form, they must first complete and submit the *EnergyWorks Initial Financing Request Form*. This two-page form is the first step in the process of applying for financing from the EnergyWorks Loan Fund.

The *EnergyWorks Initial Financing Request Form* can be downloaded from the business portion of the EnergyWorks website (<http://EnergyWorksNow.com/for-your-business/>). The form is a Microsoft Word form that can be complete by potential applicants. The answer boxes of the form expand to the length of the answer given, so please do not feel limited to answers no larger than the current size of the answer fields. Only the fields for the answers can be edited, as all other parts of the form are locked.

Applicants are asked to complete every field of the application form. If the requested information is not yet known, please enter "Not Yet Known" in the field. If the question does not apply to the project being proposed, please enter "Not Applicable." Applicants are not expected to wait until every aspect of a project has been decided before filing the *EnergyWorks Initial Financing Request Form*. Details about a project are expected to become known over the course of underwriting and the due diligence review of the application and the project.

Once the form has been filled out, save it as a Word document with a file name that includes the project name and the date. The completed *EnergyWorks Initial Financing Request Form* should then be emailed to ForBusinesses@EnergyWorksNow.com.

TRF and PIDC staff will review the submitted *EnergyWorks Initial Financing Request* form and contact its author to discuss the project and its possible financing. TRF and PIDC staff will advise when a full loan application should be completed and submitted.

Any questions about the completed *EnergyWorks Initial Financing Request Form* should be submitted via email to ForBusinesses@EnergyWorksNow.com. EnergyWorks will respond to all questions.

PART 3. INSTRUCTIONS FOR THE BUILDING ENERGY LOAN APPLICATION FORM

A. Introduction

Before an interested person completes the *EnergyWorks Building Energy Loan Application Form*, they should first complete and submit the *Initial Financing Request* form, as described in PART 2 of this document. An Applicant should spend the time to complete and file the *EnergyWorks Building Energy Loan Application Form* only after being advised to do so by TRF or PIDC staff.

B. Completing the *EnergyWorks Building Energy Loan Application Form*

The *EnergyWorks Building Energy Loan Application Form* can be downloaded from the business portion of the EnergyWorks website (<http://EnergyWorksNow.com/for-your-business/>). The *EnergyWorks Building Energy Loan Application Form* is a Microsoft Word form. Only the fields for the answers can be edited, as all other parts of the form are locked. Applicants are urged to complete every field of the application form. If the requested information is not yet known, please enter “Not Yet Known” in the field. If the question does not apply to the project being proposed, please enter “Not Applicable.” The answer boxes of the form expand to the length of the answer given, so please do not feel limited to answers no larger than the current size of the answer fields.

Section 1. Contact Information for Person Completing this Application

The first section of the *EnergyWorks Building Energy Loan Application Form* asks for the contact information of the person completing the form. The person completing the form should be someone able to discuss the prospective project.

Section 2. Information about the Applicant

The second section of the *EnergyWorks Building Energy Loan Application Form* collects information about the applicant.

The FEIN is the Federal Employer Identification Number. It is sometimes referred to as the Federal Tax Identification Number. More information is available at www.irs.gov/businesses/small/article/0,,id=98350,00.html.

The DUNS (Data Universal Numbering System) number is a unique nine-digit number issued by Dun & Bradstreet. More information is available at www.dnb.com/us/duns_update/.

The SIC (Standard Industrial Classification) code is a four digit numerical code assigned by the U.S. government to business establishments to identify the primary business of the establishment.

The NAICS (North American Industry Classification System) code is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. More information is available at www.naics.com/index.html.

CCR (Central Contractor Registration) is the primary registrant database for the U.S. Federal Government. More information is available at www.bpn.gov/ccr/default.aspx.

The MBE/WBE/DBE status is the place to indicate whether the applicant has been recognized as a minority business, a woman-owned business or a disadvantaged business, or similar equal opportunity terms used by different agencies.

Section 3. Information about the Proposed Energy Project

Section 3 of the *EnergyWorks Building Energy Loan Application Form* asks for information about the building and proposed energy project. Provide as much information as you know about the building and the project. Please provide a short one or two paragraph description about the project.

Section 4. Project Budget

Section 4 of the *EnergyWorks Building Energy Loan Application Form* asks for the budget information for the project. Key categories of project costs are provided. Please indicate how certain you are about each cost line. This can range between an educated guess to actual bids.

Section 5. Energy Loan Request and Other Project Financing

Section 5 of the *EnergyWorks Building Energy Loan Application Form* seeks information about how you plan to pay for the project. Please tell us the amount of a building energy loan you are seeking. The table in this section lists various sources for project financing, including other loans, grants, rebates from the electric utility company and your equity (or cash) contribution.

Section 6. Exhibits That Must Accompany This Application

Section 6 of the *EnergyWorks Building Energy Loan Application Form* lists the four exhibits that must accompany this application. The four exhibits are:

- Exhibit 1. Project Narrative
- Exhibit 2. Business Narrative
- Exhibit 3. Detailed Project Budget (sources and uses)
- Exhibit 4. Operating Pro Forma
- Exhibit 5. Current-Year Interim Financial Statements and 3 Years of Financial Statements (or Federal Tax Returns)

Section 6 of the *EnergyWorks Building Energy Loan Application Form* also lists exhibits that should accompany this application if available.

PART 4 of this *Instructions* document lists the type of information that may be requested of the Applicant during the underwriting of the loan request.

Section 7. Certification, Authorization and Signature

Section 7 of the *EnergyWorks Building Energy Loan Application Form* requires the applicant to certify that he or she has read and understands eight key statements about the energy lending. The form needs to be signed by someone with the legal authority to sign this application on behalf of the Applicant.

C. Consultation with Local Government Officials

Applicants with projects located in Bucks, Chester, Delaware and Montgomery Counties and the City of Philadelphia are strongly urged to contact the appropriate economic development official for their county to discuss their project and to determine if the county office has any objections or concerns with the project. The contact information for the appropriate officials is shown below:

Bucks County

Lynn Bush, Executive Director
Bucks County Planning Commission
ltbush@co.bucks.pa.us
215 345 3401

Montgomery County

Ken Klothen, Director
Countywide Strategic Economic
Development Program
kklothen@montcopa.org
610 278 3020

Chester County

Patrick Bokovitz, Director
Chester County Department of Community
Development
pbokovitz@chesco.org
610 344 6900

City of Philadelphia

Katherine Gajewski
Mayor's Office of Sustainability
Katherine.Gajewski@phila.gov
215 686 4471

Delaware County

J. Patrick Killian, Director
Delaware County Commerce Center
jpk@delcopa.org
610 566 2225

D. Submission of the Application

EnergyWorks is accepting loan applications on a rolling basis.

A complete building energy loan application package consists of the following:

- Four paper copies of the completed application form and Exhibits 1 through 5;
- One electronic copy of the completed application form, either sent by email or provided on a CD or flash drive; and,
- The loan application fee of **\$250.00** (payable to "PIDC-LDC").

Applicants should deliver or mail the four copies of the complete application package to:

EnergyWorks Loan Fund
Philadelphia Industrial Development Corporation
2600 Centre Square West
1500 Market Street
Philadelphia, PA 19102-2126

If the electronic file of the completed application is being sent by email, it should be sent to:

ForBusinesses@EnergyWorksNow.com.

Incomplete applications will not be recognized for purposes of establishing the date of application. Loans will be awarded in the order Applicants successfully complete the financial underwriting and energy analysis due diligence work and have their loan requests approved by the TRF or PIDC loan committees.

E. Questions

All questions and requests for information should be submitted via email to ForBusinesses@EnergyWorksNow.com. EnergyWorks will respond to all questions.

PART 4. APPLICANT'S RESPONSIBILITY TO PROVIDE ADDITIONAL INFORMATION DURING THE LOAN UNDERWRITING PROCESS

A. Introduction

When the *EnergyWorks Building Energy Loan Application* is received, the underwriting process is just beginning. The due diligence review of applications has two main tracks – financial and energy. This PART describes the financial due diligence. PART 5 describes the energy analysis due diligence.

Factors that will be examined during the underwriting process include:

- The Applicant's creditworthiness and ability to repay the loan;
- The qualifications, experience, and past performance of the Applicant and project team, including the ability to obtain financing and complete building projects;
- The Applicant's ability to comply with the program requirements set by the American Recovery and Reinvestment Act, the U.S. Department of Energy, the Commonwealth of Pennsylvania and, for projects located in Philadelphia, the City of Philadelphia (described in PART 6 below); and
- The project's ability to promote the objectives outlined in PART 1.C above.

B. Documents that an Applicant will Need to Provide during the Underwriting of a Loan

To help the EnergyWorks team evaluate the applications and proposed projects, Applicants will very likely be asked, during the course of the underwriting process, to submit some or all of the following written materials:

1. Resumes of Project Team Members, with contact information, qualifications, and experience for Project Manager, Architect (submit AIA form), Engineers, General Contractor, consultants, etc. Describe how these members relate to each other.
2. Five years of Financial Statement projections.
3. Personal Financial Statements of principals owning 20% or more of the company/organization.
4. Most recent year Personal Tax Returns of principals.
5. Schedule of Aging of Receivables and Payables, up-to-date within 30 days of application filing date.
6. List of outstanding obligations, including all lenders, current loan balances or credit limits and monthly payments.
7. Project Operating Pro forma; include executed leases or letters of intent.
8. Detailed Project Budget, showing Sources and Uses.
9. Construction Cost Estimates / Contractor Bids / Equipment Quotes
10. Quotes for soft costs, *i.e.* for lawyers, accountants, bank fees, permits, architect fees, etc.
11. Bank Financing Commitment Letter(s) if applicable.
12. Appraisal of real estate collateral (as-improved basis).

13. For project with Tenants, a description of potential tenants and copies of letters of intent (“LOI”) and leases, as applicable.
14. Proof of site control (e.g. Agreement of Sale for project site or a copy of the lease agreement).
15. Phase I Environmental Audit (or Phase II if available) of project site.
16. Equipment Schedule - Include type, function, useful life, and age (if used) of equipment to be purchased.
17. Energy audit report or building energy simulation modeling report.
18. Architectural plans or construction documents.
19. Project specifications document.
20. Any grant application, utility rebate application or award notices that the project has submitted or received

During the underwriting process, EnergyWorks reserves the right to request additional or clarifying information from the Applicant as needed in the due-diligence review of a loan application.

PART 5. GUIDELINES AND REQUIREMENTS FOR QUANTIFYING ENERGY SAVINGS

A. Introduction

As noted earlier, a building project applying for a building energy loan must demonstrate that it will result in a 25% reduction in energy consumption. This 25% reduction must be confirmed by an energy professional and be based on sound engineering principles for analyzing and estimating savings. An “energy professional” is a registered architect, professional engineer, or individual with a current certification by the Building Performance Institute, the Association of Energy Engineers, the U.S. Green Building Council or comparable certification.

Each Applicant will need to submit a written energy analysis report. The contents of those reports depend on the specific type of project. As noted above, the building energy loans are financing building energy projects of three different categories:

- 1) Projects involving limited energy retrofit measures or the replacement of equipment in an existing, occupied building.
- 2) Projects involving extensive energy retrofit measures in an existing, occupied building.
- 3) Projects involving the gut rehab of an existing building that is either currently unoccupied or will be renovated for a different usage.

Each of these categories of projects has a different approach for determining the energy reduction goal and for establishing that the proposed building project meets that goal. The contents of each energy analysis process and report for each project category will be discussed in the following sections.

It is critical that the Applicant and EnergyWorks have a clear understanding about the specific energy measures (and their installed costs) that will be installed with EnergyWorks financing. It is also critical that the actual measures installed be identical to the energy measures that were analyzed so the estimates of energy savings are accurate for the actual measures installed. Because the scope of work of a project often changes during the final design process and during construction, the Applicant is under a continuing duty to both update EnergyWorks as to the actual measures being installed and to submit revised energy analysis that reflects the actual energy measures being installed in the project. The project’s final estimate of energy savings must be based on of the energy measures present in the building at the conclusion of construction. To help ensure this happens, an Applicant must complete and submit the “*List of Energy Measures to be Financed*” spreadsheet that is available on the EnergyWorks website.

While EnergyWorks is focused primarily on energy efficiency and conservation measures, it may also provide financing for distributed generation such as solar photovoltaic systems and combined-heat-and-power systems when such measures are part of a larger building energy conservation project. Please contact EnergyWorks for more information about financing these kinds of measures.

Depending on need and the availability of funding, EnergyWorks may, at its discretion, be able to provide the technical services of its engineering firm to undertake the energy audit or energy modeling required by EnergyWorks. EnergyWorks will cover 75% of the cost of the energy analysis services, up to a maximum of \$10,000 and the Applicant is required to cover the balance of the costs. Applicants should indicate their interest in applying for the energy services in the question found both in the *EnergyWorks Initial Financing Request Form* and the *EnergyWorks Building Energy Loan Application Form*.

EnergyWorks has contracted with an energy engineering firm to review and approve the energy analysis reports submitted by the Applicants for the building energy loan. Applicants' energy professionals must cooperate with EnergyWorks' energy engineer to obtain its approval of the estimates for energy savings.

Questions about the energy issues in EnergyWorks loans can be addressed to Roger Clark at TRF. His email address is roger.clark@trfund.com and his telephone number is 215.574.5814.

B. Limited Energy Retrofits in an Existing Occupied Building

Energy retrofits in existing occupied buildings can occur either when a piece of energy-consuming equipment reaches the end of its useful life or when a building owner decides to take a proactive approach to reducing the energy consumption of a building. In either case, the building owner replaces an existing piece of equipment or energy system with a more energy-efficient model. Examples of energy retrofits covered by this project category could include replacement of HVAC equipment, lighting systems or other building systems. Retrofits may also include air sealing treatment and additional insulation in a building's attic or exterior walls. A third type of measure in the retrofit category could be replacement of production equipment with more-efficient alternatives.

The distinction between "limited" energy retrofits and "extensive" energy retrofits (see the next section) is subjective, but generally a limited energy retrofit involves two or fewer separate Energy Conservation Measures ("ECMs") or pieces of equipment or energy systems.

The 25% energy savings goal is met when the energy consumption of the new equipment or new system is 25% less than the energy consumption of the existing equipment or system. The energy consumption of the entire building need not be reduced by 25%, but only the energy consumption of the energy equipment or system being replaced.

To demonstrate compliance with the 25% reduction goal, EnergyWorks requires an energy professional to perform an energy analysis and submit a written report for each retrofit measure that addresses the following:

1. The description of the existing equipment/system.
2. The estimated energy consumption of the existing equipment/system.
3. The description of the new proposed equipment/system or retrofit. Cut sheets of the equipment/systems should be included as an attachment to the analysis.
4. The estimated total cost (both hardware and installation) of the new equipment/system or retrofit and any rebates, grants, tax credits or other financial incentives available.
5. The estimated energy consumption of the new equipment/system or retrofit.
6. The useful life of the new equipment/system or retrofit.

7. The estimated annual and lifetime O&M cost savings or increase of the new equipment/system or retrofit.
8. The estimated annual and lifetime energy savings of the new equipment/system or retrofit in kW and kWh of electricity, ccf of natural gas, gallons of heating oil, etc.
9. The estimated annual and lifetime energy cost savings of the new equipment/system or retrofit (including any assumptions regarding future energy costs).

The energy professional must, as part of the written analysis, provide a description of and documentation for all tools used to perform energy use and energy savings estimates. Manual calculations should disclose essential data, assumptions, formulas, etc. so that a reviewer could replicate the calculations based on the data provided. All assumptions and estimates must be clearly identified.

As noted in Part 5.A above, the Applicant must also complete and submit the “*List of Energy Measures to be Financed*” spreadsheet that is available on the GELF website.

Because the scope of work of a project may change during implementation, the applicant is under a continuing duty to update EnergyWorks as to the actual measures being installed and the estimated energy savings of those measures.

C. Extensive Energy Retrofits in an Existing Occupied Building

The necessary energy analysis needed to support the energy saving claims of comprehensive energy retrofits in existing buildings that involve four or more ECMs is a whole building energy audit report by an energy professional that addresses the following elements:

1. Historic Energy and Water Consumption:
 - a) Compile energy and water usage and costs for the building for the 24 months prior to the audit. Provide the data showing monthly consumption and costs for electricity (show both kW and kWh), natural gas (ccf), fuel oil (gallons), steam (thousand pounds), propane (gallons), solid fuels (BTUs) and water (gallons). Show the billing meter readings that corroborate usage.
 - b) Identify the utility rate schedule under which services are provided to each meter.
 - c) Develop a load profile for each electric and natural gas account.
2. Facility Description
 - a) Describe the building’s size, age, construction type and features.
 - b) Describe the building usage and occupancy profiles.
3. Building Envelope. Describe the building envelope (roof, exterior walls, windows, exterior doors). Assess the building’s air tightness, U-values and solar reflectance.
4. Systems and Equipment. Analyze all the major electrical and mechanical systems at the building. The analysis shall address the loads, hours of operation, proper sizing, current condition, operating efficiencies and expected remaining life for the following building systems:
 - a) HVAC system and controls (heating, air conditioning, ventilation).
 - b) Lighting (interior and exterior).
 - c) Water consumption end uses (such as restroom fixtures, kitchen equipment, laundry equipment, etc.) and water heating equipment.
 - d) Plug loads (computers, office equipment, medical equipment, etc.).

5. Energy Conservation Measures (ECMs): Identify and propose potential ECMs for installation or implementation at the building. For example, for lighting recommendations, for each area of each building, provide proposed fixture type, proposed lamp type, proposed lamp count, proposed ballast type, total watts per proposed fixture, projected energy savings, projected energy cost savings and before and after lighting levels. Similar detail should be provided for other measures. Clearly document the key assumptions made in analyzing each measure and describe the method of analysis. Provide the following for each recommended ECM:
 - a) Description of the ECM.
 - b) Estimated installation cost of the ECM and source of cost estimate.
 - c) Life expectancy of the ECM.
 - d) Estimated annual and lifetime energy savings of the ECM (kW, kWh, therms, etc.).
 - e) Estimated annual and lifetime energy cost savings from the ECM (including any assumptions regarding future energy costs).
 - f) Estimate of any rebates, grants, tax credits or other financial incentives available.
 - g) Estimated annual and lifetime operating cost savings.
 - h) Simple payback of the ECM.
 - i) Estimated return on investment of the ECM.

The energy professional must, as part of the written analysis, provide a description of and documentation for all tools used to perform energy use and energy savings estimates. Manual calculations should disclose essential data, assumptions, formulas, etc. so that a reviewer could replicate the calculations based on the data provided. All assumptions and estimates must be clearly identified.

As noted in Part 5.A above, the Applicant must also complete and submit the “*List of Energy Measures to be Financed*” spreadsheet that is available on the EnergyWorks website.

Because the scope of work of a project may change during implementation, the applicant is under a continuing duty to update EnergyWorks as to the actual measures being installed and the estimated energy savings of those measures.

D. Energy Measures in the Gut Rehab of an Existing Unoccupied Building

A full gut rehab generally involves the complete stripping of a building down to its walls and floors, followed by the rebuilding of the walls and roof and the installation of new HVAC systems, lighting and other energy systems. The energy analysis for these projects involves a two-step process of (1) establishing an energy goal, and (2) demonstrating that the rehabbed building will meet the energy goal.

The energy-savings goal for a building undergoing a full gut rehab is a 25% reduction in the building’s total energy consumption. Because there is no true “before” data to serve as the baseline, the energy savings goal uses as its baseline the average energy consumption of an existing building of the same usage, as shown in the U.S. Department of Energy’s Commercial Building Energy Consumption Survey (CBECS). See www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/detailed_tables_2003.html for the source of the most current CBECS data.

EXAMPLE: An applicant has a 12,250 square foot warehouse building that is undergoing a gut rehab and will be used as office space. CBECS shows the average energy consumption for office buildings in the Mid-Atlantic region is 98,000 BTUs per square foot per year. Applying a 25% reduction in energy consumption to that baseline, the new office building must show a total annual energy

consumption of 73,500 BTUs or less per square foot per year ($98,000 \times 0.75$). For the total building, the energy goal would be 900.375 million BTUs or less per year ($73,500 \times 12,250$).

Because the application of CBECS data can require some subjective interpretation, Applicants are urged to email Roger Clark at The Reinvestment Fund (roger.clark@trfund.com) with information about the gross square footage and the intended usage of the building being rehabbed. If a building will have several different types of usage, Applicants should list all of the different types and the square footage of each type. Based on this information, the Applicant will be given an energy consumption target that the building must meet.

Once the building's energy target has been established, the second step is to show that the rehabbed building is designed to achieve that target, i.e. to consume less than the given number of BTUs per year. There are four parts to showing the building will meet its energy goal:

1. The Applicant will need to identify the specific energy measures and systems that are to be included in the building. The loan application narrative contains a list of proposed energy measures that will be included in the project. That is a start, but much more detail is needed about these and other energy issues in the rehabbed building. EnergyWorks needs specific information about the high-performance energy systems and measures for the following:
 - a) Building envelope (including air tightness, U-values, roof solar reflectance, windows and doors)
 - b) HVAC system and controls (heating, air conditioning, ventilation)
 - c) Lighting (interior and exterior)
 - d) Water consumption end uses (such as restroom fixtures, kitchen equipment, laundry equipment, etc.) and water heating equipment
 - e) Plug loads (computers, office equipment, medical equipment, etc.).
2. As noted in Part 5.A above, the Applicant must also complete and submit the “*List of Energy Measures to be Financed*” spreadsheet that is available on the EnergyWorks website.
3. The Applicant must produce and submit an energy modeling report by a qualified energy consultant that uses recognized software to estimate the building's total annual energy consumption with the energy systems and measures that will be used in the rehabbed building. The Applicant must also submit all input assumptions that were used in the modeling. The acceptable energy models include DOE-2.2, EnergyPlus, eQuest, HAP and Trace. The complete list of building energy modeling software accepted by the federal government is available at http://www1.eere.energy.gov/buildings/qualified_software.html.
4. The Applicant must submit an ENERGY STAR *Target Finder* report based on the final building design and specifications for the project (see www.energystar.gov/index.cfm?c=new_bldg_design.bus_target_finder).

Because the scope of work of a project often changes during the final design process and during construction, the applicant is under a continuing duty to both update EnergyWorks as to the actual measures being installed and to submit revised energy modeling that reflects the actual energy measures being installed in the project. The project's final estimate of energy savings must be based on of the energy measures present in the building at the conclusion of construction.

E. Reporting Energy Consumption Data with *Portfolio Manager*

All projects must also use ENERGY STAR's *Portfolio Manager* to report both the building's pre-retrofit Energy Performance Rating and an estimated post-retrofit Energy Performance Rating. *Portfolio Manager* is available at http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager. Applicants for financing must provide EnergyWorks permission to access the *Portfolio Manager* account for the building. ENERGY STAR tools and resources can be found at http://www.energystar.gov/index.cfm?c=tools_resources.bus_energy_management_tools_resources.

Loan recipients will also need to continue to use *Portfolio Manager* report their building's energy consumption data for the first 12 months of building operations following implementation of the energy measures. Post-construction energy consumption data is required because EnergyWorks is required to report both the estimated energy savings and the actual energy savings realized by projects in the first 12 months of occupancy. EnergyWorks will be using its consulting energy engineer to prepare individual project reports that present this energy data and address any changed use or other factors that must be understood when evaluating project performance.

PART 6. FEDERAL, STATE AND LOCAL GOVERNMENT REQUIREMENTS

A. Introduction to ARRA and EECBG

The American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, ("ARRA") provided greatly expanded funding for a variety of energy efficiency programs administered by the U.S. Department of Energy ("DOE"). DOE passed this funding to grantees through the Energy Efficiency Block Grant Program ("EECBG").

The EnergyWorks Loan Fund is funded by a competitive EECBG grant from DOE to the City of Philadelphia on behalf of itself and Bucks, Chester, Delaware and Montgomery counties. The City of Philadelphia has in turn made the EnergyWorks funding available to TRF and PIDC for building energy loans.

This Part will address the program requirements that apply to the EnergyWorks Loan Fund because federal ARRA, and EECBG dollars provide a portion of the capital. The list of these provisions is provided below and discussed in following Sections to this PART.

Section B.	Prohibited Uses
Section C.	Non-Discrimination Provisions
Section D.	Equal Opportunity Provisions
Section E.	Davis-Bacon Act and Prevailing Wages
Section F.	National Environmental Policy Act (NEPA) Provisions
Section G.	Historical Preservation Provisions
Section H.	Waste Stream Requirements
Section I.	Buy American Provisions
Section J.	Access to Records
Section K.	Record Retention
Section L.	Access to Information
Section M.	Disclosure of Political Contributions
Section N.	Prohibition on Lobbying
Section O.	Monthly and Quarterly Reporting Requirements
Section P.	Requirements for Reporting Future Energy Consumption

Recipients of building energy loans from EnergyWorks will be required to comply with all of the terms, conditions, requirements and limitations identified in this PART.

Applicants need to understand the ramifications of all of these program provisions. Applicants unable or unwilling to comply with all of these provisions should not apply for a building energy loan.

The remaining sections of this Part are provided for your guidance. They do not address all of the terms and conditions that may be applicable to a particular loan request or individual Borrower. More information about these regulatory requirements is available in the generic exhibit for the loan agreements that is available on the EnergyWorks website.

Applicants must also understand that these requirements may be revised by DOE through the ongoing guidance documents DOE issues for the EECBG program. The current version of all DOE guidance documents for EECBG and SEP can be found at <http://www1.eere.energy.gov/wip/guidance.html>.

The sections below are not to be considered legal advice. Specific legal language addressing these requirements will be provided to successful Applicants when the loan agreement documents are being negotiated. Borrowers are encouraged to research, to seek legal counsel and advice and to ask questions about these provisions early in the loan underwriting process.

B. Prohibited Uses of Funds

Building energy loans may not be used to finance any projects at a casino or other gambling establishment, aquarium, zoo, golf course, or swimming pool, or any other items prohibited by ARRA.

C. Nondiscrimination Provisions

Building energy loan recipients must covenant and agree that no person shall be denied benefits of, or otherwise be subjected to discrimination in connection with the Contractor's performance under this Agreement. Loan recipients must agree that in the hiring of any employees or contractors for any activity supported by the loan, the borrower, any subcontractor or any person acting on behalf of the borrower shall not by reason of gender, race, creed, or color discriminate against any citizen of the Commonwealth of Pennsylvania who is qualified and available to perform the work to which the employment relates.

Accordingly, and to the extent applicable, the Contractor covenants and agrees to comply with the following:

1. On the basis of race, color or national origin, in Title V I of the Civil Rights Act of 1964 (42 U.S.C. §§2000d *et seq.*) as implemented by applicable regulations.
2. On the basis of race, color, religion, sex, or national origin, in Executive Order 11246 (3 CFR §§1964-1965), as implemented by applicable regulations.
3. On the basis of sex or blindness, in Title IX of the Education Amendments of 1972 (20 U.S.C. §§1681, *et seq.*), as implemented by applicable regulations.
4. On the basis of age, in The Age Discrimination Act of 1975 (42 U.S.C. §§6101 *et seq.*), as implemented by applicable regulations.
5. On the basis of handicap, in Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. §794), as implemented by applicable regulations.

D. Equal Opportunity Provisions

Building energy loan recipients are required to comply with all applicable federal Disadvantaged Business Enterprise (DBE) requirements. Borrowers must also comply with the Pennsylvania's small disadvantaged business policies as well as with the Governor's Executive Order 2009-02: *Creating Opportunities for Small and Disadvantaged Businesses in the Expenditure of Federal Stimulus Monies* (see <http://www.recovery.pa.gov/portal/server.pt/gateway/>)

[PTARGS 0 2 50166 6052 506683 43/http%3B/pubcontent.state.pa.us/publishedcontent/publish/marketingsites/recovery_pa_gov/content/announcements/announcements_list/eo_small_and_disadvantaged_business_102809.pdf](http://www.portal.state.pa.us/portal/server.pt/community/bureau_of_minority_and_women_business_opportunities/1358)

Pursuant to the federal Department of Energy and the Commonwealth Executive Order 2009-02, borrowers, at a minimum, shall:

1. Make reasonable and good faith efforts to provide maximum practicable opportunities for small disadvantaged businesses to participate as contractors, professional service providers, subcontractors, and suppliers.
2. Consult with the Department of General Services' Bureau of Minority and Women Business Opportunities (Opportunities http://www.portal.state.pa.us/portal/server.pt/community/bureau_of_minority_and_women_business_opportunities/1358) to ensure significant ARRA opportunities for small certified MBEs and WBEs;
3. Participate in outreach activities to increase small disadvantaged business interest and participation in ARRA opportunities;
4. Use the Department of General Services' Web site (www.dgs.state.pa.us) to identify certified MBEs and WBEs as potential sources for ARRA opportunities;
5. Include certified MBEs and WBEs on solicitation lists;
6. Prepare and keep records of solicitations, including a bid tabulations, showing names of all firms solicited and the dollar amount of the bid, quote or proposal, as well as copies of all bids, quotes, and proposals received; and
7. Provide monthly reports to the Department of General Services' Bureau of Minority and Women Business Opportunities on MBE and WBE utilization.

For projects located in the City of Philadelphia, the loan will be subject to the Mayor's Executive Order 02-05(see <http://mbec.phila.gov/home/forms/mbec%20e.o.02-05.pdf>). Loan recipients are required to work with the City's Office of Economic Opportunity (see <http://mbec.phila.gov/home/>) to work to meet the following participation ranges for the EnergyWorks Loan Fund:

Minority Business Enterprises ("MBE")	20%
Woman Business Enterprises ("WBE")	10%
Disabled Business Enterprises ("DSBE")	Best Efforts.

All loan recipients located in the City of Philadelphia will need to work with the Philadelphia Office of Economic Opportunity to comply with the Mayor's Executive Order 02-05 and the participation ranges established for Philadelphia projects financed by the EnergyWorks Loan Fund.

E. Davis-Bacon Act

Projects supported by EnergyWorks are subject to the Davis-Bacon Act, 40 U.S.C. §§3141 *et seq.* and energy loan recipients will be required to comply with prevailing wage guidelines as specified in the Davis Bacon Act and related directives from the U.S. Department of Labor ("DOL"). The Davis Bacon Act ("DBA") requires that all laborers and mechanics employed on projects involving construction, alteration, and/or repair valued in excess of \$2,000 must be paid at a rate not less than the minimum wages specified in a wage determination made by the Secretary of Labor. Information and guidance about DBA compliance will be available to building energy loan recipients from the Pennsylvania Department of Labor and Industry.

DOE has issued *Guidance on Implementation of the Davis-Bacon Act Prevailing Wage Requirements for State Energy Program Grant Recipients Under the American Recovery and Reinvestment Act of 2009* on April 7, 2010. State Energy Program Notice 10-003 is available at http://www1.eere.energy.gov/wip/pdfs/sep_dba_program_notice_10-003A.pdf.

Upon receiving a building energy loan, a loan recipient will be required to meet a number of conditions to ensure DBA compliance, including but not limited to the following:

- Participation in a briefing session with the Pennsylvania Department of Labor and Industry's Bureau of Labor Law Compliance on the application of Davis Bacon requirements, which will include detailed enumeration of requirements, orally and in writing, and a focused application of requirements to the Ultimate Recipient's specific project and scope of work;
- Submission of weekly certified payrolls to EnergyWorks and the Bureau of Labor Law Compliance; and,
- Opening of work sites to unscheduled inspections by staff from the Bureau of Labor Law Compliance, including but not limited to interviews with workers and management staff, audits of payrolls or other records consistent with the inspectors' mandate to ensure compliance with the requirements of the Davis Bacon Act.

F. National Environmental Policy Act (NEPA)

Recipients of EnergyWorks building energy loans shall comply with all applicable Federal, State, and local environmental requirements, including: National Environmental Policy Act, National Historic Preservation Act, Endangered Species Act, the Clean Air Act, the Federal Water Pollution and Control Act, and Executive Orders on Floodplains (11988), Wetlands (11990) and Environmental Justice (12898). Failure of the loan recipient to meet Federal, State, and local environmental requirements and obtain applicable permits may jeopardize Federal funding.

Formal DOE guidance on environmental compliance issues was issued on December 17, 2009. This guidance, SEP Program Notice 10-001, is available at http://eere.energy.gov/wip/pdfs/nepa_program_guidance_notice_10-003.pdf.

DOE has concluded that many types (or classes) of actions *normally* do not have the potential to cause significant environmental impacts and, thus, are categorically excluded from the need for additional NEPA review. The list of DOE's Categorical Exclusions is contained in Appendices A and B to Subpart D of DOE's NEPA regulations (10 CFR Part 1021), which can be found at http://apps1.eere.energy.gov/state_energy_program/doe_guidelines_nepa.cfm.

EnergyWorks will give strong preference to projects that meet DOE guidelines for categorical exclusions from NEPA environmental review. If a project does not fully qualify for the categorical exclusion, the building energy loan applicant will assist EnergyWorks and the appropriate government agency in completing and filing an EF-1 form to obtain from DOE a *Finding of No Significant Impact*.

G. Historical Preservation Provisions

The American Recovery and Reinvestment Act requires that the building energy loans must be used in ways consistent with the National Historic Preservation Act of 1966 ("NHPA"). The U.S. Department of Energy (DOE) has created a web page that addresses the Section 106 review under the NHPA and other historic preservation issues that can be found at http://eere.energy.gov/wip/historic_preservation.html. The two energy loan funds are subject to the DOE guidance on the historic preservation issued as SEP Program Notice 10-006 on February 11, 2010 and available at http://eere.energy.gov/wip/pdfs/historic_preservation_program_guidance.pdf. The federal regulation implementing the Section 106 review process appear in the U.S. Code of Federal Regulations at 36 CFR Part 800 (see <http://www.achp.gov/regs-rev04.pdf>).

DOE and the federal Advisory Council on Historic Preservation have negotiated and approved a prototype agreement that concludes that many energy measures do not have the potential to negatively affect historic properties

and make those measure exempt from further Section 106 review. Both the Bureau of Historic Preservation of the Pennsylvania Historical and Museum Commission and the Pennsylvania Department of Environmental Protection has signed this prototype agreement, which can be found at http://www1.eere.energy.gov/wip/pdfs/historic_preservation_doe_prototype_pa.pdf. Appendix B contains the list of energy measures that are exempt for purposes of these loans.

For projects not exempt from a Section 106 review, the building energy loan applicant will need to work with the Bureau of Historic Preservation of the Pennsylvania Historical and Museum Commission. (PHMC) In order to fulfill the requirements of Section 106, building energy loan applicants will be to required coordinate the Section 106 review with The Bureau is the State Historic Preservation Officer (SHPO) for purposes of the NHPA and their website is http://www.portal.state.pa.us/portal/server.pt/community/phmc_home/1426. Information about the Bureau and its Section 106 review process is available at http://www.portal.state.pa.us/portal/server.pt/community/historic_preservation/3741.

H. Waste Stream Requirements

Building energy loan recipients must comply with all federal, state and local laws and regulations pertaining to the generation, storage, treatment, transportation, and disposal of sanitary or hazardous wastes generated by the financed building project. Sanitary and hazardous wastes include, but are not limited to, old light bulbs, lead ballast, piping, roofing material, discarded equipment, debris, asbestos, etc.

The loan recipient must prepare a Project Waste Management Plan for all demolition, construction and other solid wastes from that addresses the following elements:

- 1) The name(s) and contact information of the individual(s) responsible for managing the project wastes.
- 2) Identify all local, state and federal permits or approvals related to the solid waste from the project that must be obtained. Show that these permits have been issued.
- 3) Describe the actions that will be taken to minimize waste generation. This includes the packaging materials for equipment and supplies brought to the project and whether the supplier can eliminate or recycle packaging.
- 4) Describe the types and estimated quantities of wastes that will be generated by the project:
 - a) List the likely project wastes, including removed lamps and ballasts, equipment, fixtures, roofing material, lumber, drywall, insulation, asbestos, metals, masonry (brick, concrete), pipe, carpet, plastic, paper, cardboard and all other debris and waste.
 - b) For each waste listed, estimate the quantity and the timing when the waste will be generated.
 - c) Special attention should be paid to anticipated hazardous waste. Describe how such materials will be identified, assessed, handled, stored, treated and removed.
- 5) Describe the material handling procedures that will be used as the work site. Describe how materials to be recycled will be sorted, segregated, protected from contamination and transported.
- 6) Describe the waste materials that will be recycled:
 - a) Identify and quantify the waste materials to be recycled.
 - b) Identify the recycling facilities to be used
 - c) Estimate the percentage of total project waste that will be diverted to recycling.
- 7) Describe the disposal of the balance of the waste stream:
 - a) Identify and quantify the waste materials that cannot be recycled.
 - b) Identify the landfill and the tipping costs.
- 8) Describe the record keeping procedures for project wastes.
- 9) Describe the plan to educate the workforce about the waste handling procedures.

- 10) Show the expected budget for the project waste management, including the anticipated net cost or savings.

Loan recipients must submit a copy of their Project Waste Management Plan to EnergyWorks.

I. Buy American Provisions

Projects in buildings owned by government entities are subject to the Buy American provision in the American Recovery and Reinvestment Act of 2009 (§1605 of Title XVI). The Buy American provision requires that all the iron, steel, and manufactured goods used for the construction, alteration, or repair of a public building or public work must be produced in the United States, subject to three listed exceptions.

Important information about section 1605 of Title XVI of the Recovery Act (the Buy American provision) is available on a dedicated section of the website of DOE's Office of Energy Efficiency and Renewable Energy (EERE): http://www1.eere.energy.gov/recovery/buy_american_provision.html. This section will be updated regularly with new documents pertaining to the Buy American provision (e.g., Frequently Asked Questions (FAQs), formal guidance, and waivers).

On December 19, 2009, the U.S. Department of Energy issued a guidance document entitled *Guidance on the Buy American Provisions as Applied to Energy Efficiency and Renewable Energy Projects Funded by the American Recovery and Reinvestment Act of 2009 and Administered by the Office of Energy Efficiency and Renewable Energy*. This Guidance is located at http://apps1.eere.energy.gov/state_energy_program/pdfs/buy_american_program_guidance.pdf. DOE has issued additional materials regarding the Buy American Provision on its website at http://www2.eere.energy.gov/recovery/buy_american_provision.html.

J. Access to Records

Building energy loan recipients must agree that a representative of an appropriate U.S. Inspector General or the U.S. Comptroller General is authorized to:

1. examine any records of the Contractor, any of its subcontractors, or any state or local agency administering such contract that pertain to, and involve transactions relating to the contract; and,
2. interview any officer or employee of the contractor, subcontractor or agency regarding such transactions.

K. Records Retention

Building energy loan recipients must maintain all loan and project records intact in a form, if not original documents, as may be approved by the Federal Government, for at least three years following termination of a project funded by ARRA.

L. Access to Information

Building energy loan agreements and any records or expenditures related thereto may be subject to disclosure under the Freedom of Information Act, 5 U.S.C. §552.

Authorized representatives from DOE and EnergyWorks have the right to make site visits at reasonable times to review project accomplishments and management control systems. Loan recipients must provide, and must require their contractors to provide, reasonable access to facilities, office space, resources, and assistance for the safety and convenience of authorized representatives in the performance of their duties.

M. Disclosure of Political Contributions

Applicants for building energy loans must disclose any contributions they made to:

1. a candidate for nomination or election in any public office in the Commonwealth of Pennsylvania;
2. an incumbent in any public office in the Commonwealth of Pennsylvania;
3. a political committee or state party in the Commonwealth of Pennsylvania; and,
4. a group, committee, or association organized in support of any candidate, office holder, political committee or state party in the Commonwealth of Pennsylvania.

In addition, projects located in the City of Philadelphia that receive an energy loan must comply with the City's Financial Disclosure Program. Information about this program and the required disclosure forms is available at <http://www.phila.gov/ethicsboard/financialdisclosure.html>.

At the appropriate time on the underwriting process, the appropriate contribution reporting forms will be provided to the applicants for a building energy loan.

N. Prohibition on Lobbying

Contractors who apply or bid for an award of more than \$100,000 shall file the certification required by the Byrd Anti-Lobbying Amendment (31 U.S.C. §§1352 *et seq.*) that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352.

O. Monthly and Quarterly Reporting Requirements

EnergyWorks is required to submit quarterly and monthly reports to the DOE and quarterly reports to the U.S. Office of Management and Budget which include the information described in §1512(c) of the ARRA. EnergyWorks may request certain information from the building energy loan recipients in order to fulfill these requirements. EnergyWorks may also require the ultimate recipients to submit backup documentation for expenditures of ARRA funds including such items as timecards and invoices.

DOE has issued SEP Program Notice 10-07A , entitled *DOE Recovery Act Reporting Requirements for the State Energy Program*, effective March 1, 2010, that details the reporting requirements that loan recipients must follow. See http://www1.eere.energy.gov/wip/pdfs/sep_arra_reporting_requirements.pdf.

P. Requirements for Reporting Future Energy Consumption

As noted in PART 5.F above, loan recipients will also need to report their building's energy consumption data for the first 12 months of building operations following implementation of the energy measures. This information will be submitted via *Portfolio Manager* (see <https://www.energystar.gov/istar/pmpam/>), with permission given for EnergyWorks to access the Portfolio Manager account. Post-construction energy consumption data is required because EnergyWorks is required to report both the estimated energy savings and the actual energy savings realized by projects in the first 12 months of occupancy. EnergyWorks will be using its energy engineer consultant to prepare individual project reports that present this energy data and addressed any changed use or other factors that must be understood when evaluating project performance.