

ENERGIZE MISSOURI

INDUSTRIES

MISSOURI DEPARTMENT OF NATURAL RESOURCES



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NATURAL RESOURCES



INDUSTRIAL Energy Efficiency

PROGRAM MANUAL

AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009

STATE ENERGY PROGRAM (SEP)

SUBMITTAL DEADLINE:

July 9, 2010

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MISSOURI DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENERGY

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I. Introduction

This document is meant to serve as a guide for applicants when preparing their applications under the Industrial Energy Efficiency Program.

The following are examples and explanations on how to fill out each of the supporting documents (Forms) that must be included in an application.

1. List of Supporting Documents

Applications must contain all of the elements listed below to be considered complete and eligible for funding.

Document Code	Description
Form A	Application Cover Page
Form B	Project Narrative
Form C	Small Industry Energy Efficiency – Incentive Calculation, If Applicable
Form D	Large Industry Energy Efficiency – Incentive Calculation, If Applicable
Form E	Energy Metrics
Form F	Project Budget
Form G	Waste Stream
Form H	National Environmental Policy Act
Form I	National Historic Preservation Act

II. Form A – Application Cover Page

This document should be the cover page of your submitted application. The form contains a summary of all important aspects of an application. **The cover page MUST be signed** (Page A-2) by an authorized individual to be considered complete.

Applicant Information

Applicant Name: provide the name of the entity applying for funds. The applicant **MUST** be an industrial facility classified under 2007 NAICS Code Sectors 31-33—Manufacturing or 2007 NAICS Code Sector 493—Warehousing and Storage. Other industrial companies not included in the NAICS code sectors listed above might also be considered eligible if approved by Missouri Department of Natural Resources. Eligibility for companies not included above will be determined on a case by case basis.

DUNS Number: applicant must obtain a Dun and Bradstreet (D & B) Data Universal Numbering System (DUNS) number. A DUNS number is a unique identifier used by the federal government to track distribution of federal funds. To obtain a DUNS number, visit <http://fedgov.dnb.com/webform> or call the D&B Government Customer Response Center (866) 705-5711.

FEIN Number: provide the applicant’s federal employer identification number (EIN). This number, also sometimes referred to as a tax identification number, is a nine-digit code that businesses use to identify themselves for tax reporting, banking, and other purposes.

Mailing Address: this is the mailing address for the applicant. The mailing address must reach the contact person listed in the applicant information section. Provide:

Mailing address

City

ZIP Code + 4 (nine digits)

Contact Name: name of contact person representing the applicant. This person will be the primary point of contact with the Industrial Energy Efficiency Program.

Title of Contact: provide the title for the contact person.

E-mail address: provide the e-mail address for the contact person.

Telephone number: provide the telephone number for the contact person.

Fax number: provide the facsimile number for the contact person.

Funding Requested: provide the total funds (\$) you are requesting under the Industrial Energy Efficiency Program.

Project Information

Project Title: provide a name for the proposed energy efficiency project.

Proposed Start Date: provide the proposed start date for the project. Projects that have begun construction or installation of equipment prior to Sep. 3, 2010 will not be considered for funding.

Proposed Completion Date: provide the estimated completion date for the project. All projects must be completed before Jan. 31, 2012.

Project Site Address: this is the address where the project will take place. Provide:

Site Address

City

ZIP Code + 4 (nine digits)

Size of Facility (Sq ft.): provide the square footage of the facility where the audits and retrofits will be conducted.

NAICS Code: provide the 2007 North American Industry Classification System (NAICS) code number that the applicant organization is classified under.

Company Size (Number of FTEs): provide the number of full-time equivalents or FTEs that the applicant organization employs at the project site. FTE is defined by Office of Management and Budget (OMB) as the number of total hours worked divided by the maximum number of compensable hours in a work year as defined by law. For example, if the work year is defined as 2,080 hours, then one worker occupying a paid full time job all year would consume one FTE. Two employees working for 1,040 hours each would consume one FTE between the two of them.

Natural Gas Utility: provide the name of the gas utility (investor-owned, municipality, co-op) that currently supplies gas to the proposed project site.

Electric Utility: provide the name of the electric utility (investor-owned, municipality, co-op) that currently supplies electricity to the proposed project site.

Program Area: select the program area that you are submitting an application for. Only one application may be submitted per applicant.

Project Type: select the type of project/activity that will be conducted or implemented at the project site. Describe the energy audit level and energy efficiency Tier measures, if applicable.

Brief Project Description: provide a short description of the proposed energy efficiency project. The description must fit within the allocated area.

Metrics Activity

Details for completing the metrics activity portion of the application cover page can be found in **Section IV. Form E – Energy Metrics** of this program manual.

Note that all calculations in this program manual use kWh. To calculate energy savings resulting from approved natural gas projects, the applicant is to use the following conversion:

1 Therm \approx 29.30 kWh.

Financial Information

Funding Requested: provide the dollar amount of the requested funds as well as the corresponding percentage of total project costs. Note that the funding requested cannot be more than \$250,000 for Small

Industry Energy Efficiency Program Area or \$750,000 for Large Industry Energy Efficiency Program Area.

Funds Leveraged: provide the dollar amount of applicant contribution and other leveraged funds, as well as the corresponding percentage of total project costs. Funds leveraged can include applicant funds, funds received from contribution, or funds that have been applied for under utilities, state and federal programs, or private contributions.

Total Project Cost: provide the sum of the funding requested and funds leveraged.

Applicant Signature

An authorized representative of the applicant's entity must sign and date the application cover page (Signature on Page A-2). Applications that have not been signed will not be considered for funding.

III. Form B – Project Narrative

This form allows the applicant to submit a more elaborate description of the proposed energy efficiency project. Applicants should fill out all of the sections and provide sufficient information on the most important and relevant aspects of the proposed project:

Project Narrative

Provide a description of the proposed project, including:

- Goals and objectives.
- Statement of work (required tasks and activities).
- Information on the proposed project location, licenses and permits required (if applicable).
- Current status of the project.

If necessary, applicants may add up to one additional page (one-sided) for their project description.

Project Benefits

Discuss the merits of the project per the evaluation criteria provided in the Industrial Energy Efficiency program guidelines:

- Identify expected project outcomes including job creation/retention, energy savings, greenhouse gas (GHG) emission reductions, etc.
- Identify any additional benefits to the community, such as economic, environmental, etc.

Project Timeline

Provide a proposed timeline for project milestones or events. Examples of possible milestones include:

- Purchasing equipment.
- Equipment installation.
- Completion of energy audit.
- Ground breaking.
- Project completion.

IV. Form C – Small Industry Energy Efficiency – Incentive Calculation

Applications submitted under the Small Industry Energy Efficiency Program Area must complete Form C.

Energy Audits

If the applicant is requesting funding to conduct energy audits, it must provide information on the cost of the audit and funds leveraged by filling the table included in Form C:

(A) Cost of Energy Audit (\$): provide the cost to conduct an ASHRAE Level II energy audit at the project site.

(B) Funds Leveraged (\$): provide the dollar amount of the funds that will be leveraged with Industrial Energy Efficiency Program funds to conduct an ASHRAE Level II energy audit at the project site.

(C) Funding Requested (\$): Subtract (B) funds leveraged from (A) cost of energy audit to provide (C) funding requested (\$).

The energy audit is provided at 100 percent with a maximum amount of \$12,000 per facility.

Energy Efficiency Measures

If the applicant is requesting funding to conduct energy efficiency retrofits, it must provide information on the proposed retrofits by filling the table included in Form C:

Applicants must include a **copy of the manufacturer’s specifications for every proposed piece of equipment** for which funds are being requested.

Equipment: identify the equipment to be purchased and installed under Tiers I, II, III and IV at the project site.

Equipment Specifications: identify the manufacturer of the equipment as well as the model and the rated capacity if applicable.

(A) Equipment Unit Cost (\$): provide the cost of purchasing one unit of the proposed equipment.

(B) Number of Units: provide the number of equipment to be purchased and installed.

(C) Installation Cost (\$): provide the labor costs related to installing all units of equipment.

(D) Annual Energy Savings (kWh): provide the expected annual energy savings (in kWh) to be achieved by replacing existing equipment with the proposed equipment.

(E) Average Utility Rate (\$/kWh): provide the average annual utility rate that was paid to the utility company during the previous year for facility operations.

Simple Payback: calculate the amount of time it will take to recover the project’s investment through reduced or avoided energy costs. This is calculated by dividing the total project cost (\$) by the annual dollar savings (\$/year)

$$\begin{aligned} \text{Total Project Cost (\$)} \\ = (\text{A}) \text{ Equipment Unit Cost (\$)} \times (\text{B}) \text{ Number of Units} + (\text{C}) \text{ Installation Cost (\$)} \end{aligned}$$

$$\begin{aligned} \text{Annual Dollar Savings (\$/year)} \\ = (\text{D}) \text{ Annual Energy Savings (kWh)} \times (\text{E}) \text{ Average Utility Rate } \left(\frac{\$}{\text{kWh}} \right) \end{aligned}$$

$$\text{Simple Payback (years)} = \frac{\text{Total Project Cost (\$)}}{\text{Annual Dollar Savings } \left(\frac{\$}{\text{year}} \right)}$$

(F) **Incentive Level (\$/kWh):** this is the amount of funding that will be provided under the Small Industry Energy Efficiency Program Area, as specified by the program guidelines. The incentive level for Tiers I, II, III is given on a per annual kWh saved basis, while the incentive level for Tier IV is given as a percentage of eligible project costs (cost of equipment plus cost of installation).

(G) **Funding Requested:** calculate the amount of funding that will be requested for the proposed equipment under the Small Industry Energy Efficiency Program Area.

For Tiers I, II, III, funding requested is calculated by multiplying (D) annual energy savings (kWh) by (F) incentive level (\$/kWh) as shown below. Funding requested cannot exceed 100 percent of eligible project costs.

$$\text{Funding Requested (\$)} = (\text{D}) \text{ Annual Energy Savings (kWh)} \times (\text{F}) \text{ Incentive Level } \left(\frac{\$}{\text{kWh}} \right)$$

For Tier IV, funding requested is calculated by multiplying the eligible project costs (\$) by (F) incentive level (%) as shown below. Funding requested cannot exceed 65 percent of eligible project costs.

$$\text{Eligible Project Costs (\$)} = ((A) \text{ Equipment Unit Cost (\$)} \times (B) \text{ Number of Units}) + (C) \text{ Installation Cost (\$)}$$

$$\text{Funding Requested (\$)} = \text{Eligible Project Costs (\$)} \times (F) \text{ Incentive Level (\%)}$$

Applicants may add as many additional tables as necessary to list all of the proposed equipment to be purchased. Applicants should be careful to list proposed equipment under the correct Tier.

Summary of Funding Requested

The summary of funding requested provides a summary of funds that the applicant is requesting for both energy audits and energy efficiency retrofits under the Small Industry Energy Efficiency Program Area.

Funding requested: provide the amount of funding that the applicant is requesting to conduct an energy audit and for the purchase and installation of equipment under each Tier Level. For each Tier, the funding requested should be equal to the amount shown under the SUBTOTAL TIER row on the “Energy Efficiency Measures” table.

The maximum grant award column sets limits for funding to be provided under each category:

	Funding Requested (\$)	Maximum Grant Award (\$)
ASHRAE Level II - Energy Audit		\$12,000
Tier I		\$75,000
Tier II		\$100,000
Tier III		\$200,000
Tier IV		\$250,000
Total		\$250,000

The maximum incentive under this program is \$250,000 per application.

V. Form D – Large Industry Energy Efficiency – Incentive Calculation

Applications submitted under the Large Industry Energy Efficiency Program Area must complete Form D.

Energy Audits

If the applicant is requesting funding to conduct energy audits, it must provide information on the cost of the audit and funds leveraged by filling the table included in Form D:

(A) Cost of Energy Audit (\$): provide the cost to conduct the selected energy audit at the project site, select from either an ASHRAE Level II or ASHRAE Level III energy audit.

(B) Funds Leveraged (\$): provide the dollar amount of the funds that will be leveraged with Industrial Energy Efficiency Program funds to conduct an ASHRAE Level II or ASHRAE Level III energy audit at the project site.

(C) Funding Requested: subtract (B) funds leveraged from (A) cost of energy audit to provide (C) funding requested (\$).

The ASHRAE Level II energy audit is provided at 100 percent with a maximum amount of \$15,000 per facility. The ASHRAE Level III energy audit is provided at 75 percent with a maximum amount of \$50,000 per facility.

Energy Efficiency Measures

If the applicant is requesting funding to conduct energy efficiency retrofits, it must provide information on the proposed retrofits by filling the table included in Form D:

Applicants must include a **copy of the manufacturer’s specifications for every proposed piece of equipment** for which funds are being requested.

Equipment: identify the equipment to be purchased and installed under Tiers I, II, III and IV at the project site.

Equipment Specifications: identify the manufacturer of the equipment as well as the model and the rated capacity if applicable.

(A) Equipment Unit Cost (\$): provide the cost of purchasing one unit of the proposed equipment.

(B) Number of Units: provide the number of equipment to be purchased and installed.

(C) Installation Cost (\$): provide the labor costs related to installing all units of equipment.

(D) Annual Energy Savings (kWh): provide the expected annual energy savings (in kWh) to be achieved by replacing existing equipment with the proposed equipment.

(E) **Average Utility Rate (\$/kWh):** provide the average annual utility rate that was paid to the utility company during the previous year for facility operations.

Simple Payback: calculate the amount of time it will take to recover the project’s investment through reduced or avoided energy costs. This is calculated by dividing the total project cost (\$) by the annual dollar savings (\$/year).

$$\begin{aligned} \text{Total Project Cost (\$)} \\ = (\text{A}) \text{ Equipment Unit Cost (\$)} \times (\text{B}) \text{ Number of Units} + (\text{C}) \text{ Installation Cost (\$)} \end{aligned}$$

$$\begin{aligned} \text{Annual Dollar Savings (\$/year)} \\ = (\text{D}) \text{ Annual Energy Savings (kWh)} \times (\text{E}) \text{ Average Utility Rate } \left(\frac{\$}{\text{kWh}} \right) \end{aligned}$$

$$\text{Simple Payback (years)} = \frac{\text{Total Project Cost (\$)}}{\text{Annual Dollar Savings } \left(\frac{\$}{\text{year}} \right)}$$

(F) **Incentive Level (\$/kWh):** this is the amount of funding that will be provided under the Small Industry Energy Efficiency Program Area, as specified by the program guidelines. The incentive level for Tiers I, II, III is given on a per annual kWh saved basis, while the incentive level for Tier IV is given as a percentage of eligible project costs (cost of equipment plus cost of installation).

(G) **Funding Requested:** calculate the amount of funding that will be requested for the proposed equipment under the Small Industry Energy Efficiency Program Area.

For Tiers I, II, III, this is calculated by multiplying (D) annual energy savings (kWh) by (F) incentive level (\$/kWh) as shown below. Funding requested cannot exceed 100 percent of eligible project costs.

$$\text{Funding Requested (\$)} = (\text{D}) \text{ Annual Energy Savings (kWh)} \times (\text{F}) \text{ Incentive Level } \left(\frac{\$}{\text{kWh}} \right)$$

For Tier IV, funding requested is calculated by multiplying the eligible project costs (\$) by (F) incentive level (%) as shown below. Funding requested cannot exceed 50 percent of eligible project costs.

$$\text{Eligible Project Costs (\$)} = ((A) \text{ Equipment Unit Cost (\$)} \times (B) \text{ Number of Units}) + (C) \text{ Installation Cost (\$)}$$

$$\text{Funding Requested (\$)} = \text{Eligible Project Costs (\$)} \times (F) \text{ Incentive Level (\%)}$$

Summary of Funding Requested

The summary of funding requested provides a summary of funds that the applicant is requesting for both energy audits and energy efficiency retrofits under the Large Industry Energy Efficiency Program Area.

Funding requested: provide the amount of funding that the applicant is requesting to conduct an energy audit and for the purchase and installation of equipment under each Tier level. For each Tier, the funding requested should be equal to the amount shown under the SUBTOTAL TIER row on the “Energy Efficiency Measures” table.

The maximum grant award column sets limits for funding to be provided under each category:

	Funding Requested (\$)	Maximum Grant Award (\$)
ASHRAE Level II – Energy Audit		\$15,000
ASHRAE Level III – Energy Audit		\$50,000
Tier I		\$200,000
Tier II		\$350,000
Tier III		\$500,000
Tier IV		\$750,000
Total		\$750,000

The maximum incentive under this program is \$750,000 per application.

VI. Form E – Energy Metrics

Full-Time Equivalents

Full-time equivalent (FTE) is a metric used by U.S. Office of Management and Budget (OMB) to convert full-time, temporary and part-time jobs into comparable metrics. FTEs are calculated as total hours worked in jobs created or retained divided by the number of hours in a full-time schedule, as defined by the applicant. Job created means a new position created and filled or an existing unfilled position that is filled as a result of Recovery Act funding. Jobs retained means an existing position that is now funded by the Recovery Act, i.e. a job for which the wages or salaries are either paid for or will be reimbursed with Recovery Act funding. Jobs created and retained must be reported in full-time equivalents, or FTE. For further information please see OMB SEP Notice 10-07 http://www1.eere.energy.gov/wip/pdfs/wap10-14_sep10-07_eecbg10-08.pdf.

For each labor activity, provide the requested information:

(A) Proposed Start Date: provide the date the labor activity is anticipated to begin.

(B) Proposed Completion Date: provide the date the labor activity is anticipated to be completed. Projects must be completed on or before the project completion deadline of Jan. 31, 2012.

(C) Working Days between Start Date and Completion Date (days): provide the number of working days between the start date and completion date.

(D) Cumulative Hours on a Full-Time Schedule (hrs): provide the cumulative hours on a full-time schedule by multiplying the (C) working days between start date and completion date by 40 hours.

(E) Hours Worked on Labor Activity (hrs): provide the total number of hours worked on the labor activity.

(F) Full-Time Equivalent (FTE): convert full-time, temporary and part-time jobs into comparable metrics. FTEs are calculated as total hours worked in jobs created or retained divided by the number of hours in a full-time schedule. Provide the number of FTE positions by dividing (E) the total number of hours worked on the labor activity by (D) number of quarterly hours. For example, an electrician works 78 hours on the project in a reporting quarter. Assuming a full time schedule of 520 hours in the quarter (40 hours/week x 13 weeks/quarter), the electrician would be reported as 0.15 FTE (78 hours/520 hours).

$$\text{Full – Time Equivalent (FTE)} = \frac{\text{(E) Hours Worked on Labor Activity (hrs)}}{\text{(D) Number of Quarterly Hours (e. g. 520)}}$$

Example:

1. An activity will begin Jan. 4, 2010 and be completed by March 31, 2010. Working days between Jan. 1 and March 31, 2010 are 63 days, and workers have 8-hour days.

Quarterly hours in a full-time schedule = 65 days x 8 hours/day = 520 hours

If workers spend 1,250 hours working on installing an approved energy efficiency measure, then the number of full-time equivalents equal:

$$\text{FTEs} = \frac{1,250 \text{ hrs}}{520 \text{ hrs}} \text{ or } \mathbf{2.40 \text{ FTEs}}$$

2. An activity will begin Oct. 3, 2010 and be completed by March 25, 2011.

Project spans two reporting quarters on a full-time schedule = 2 x (65 days x 8 hours/day) = 1,040 hours.

If workers spend 1,160 hours working on installing an approved energy efficiency measure, then the number of full-time equivalents equal:

$$\text{FTEs} = \frac{1,160 \text{ hrs}}{1,040 \text{ hrs}} \text{ or } \mathbf{1.12 \text{ FTEs}}$$

Applicants should add the FTEs and report them on the “Energy Metrics” section of Form A.

Annual Energy Savings and GHG Emissions Reduced

Annual energy savings (kWh) represents the difference between the current energy use of equipment, a facility or a building, and the estimated future energy use of that equipment, facility or building.

(A) Annual Energy Savings (kWh): provide the expected annual energy savings (in kWh) to be achieved by replacing existing equipment with the proposed equipment.

$\begin{aligned} \text{Annual Energy Savings (kWh)} \\ = \text{Current Energy Use (kWh)} - \text{Estimated Future Energy Use (kWh)} \end{aligned}$
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Applicants should add the total annual energy savings and report on them on the “Energy Metrics” section of Form A.

(B) GHG Emission Factor (MT CO₂e/kWh): this GHG emission factor is provided in the table and was derived from eGrid for SERC Midwest Region.

GHG emission reductions are tied to energy savings. One way to simplify the GHG calculation is to assume that all energy savings are reductions in electricity usage. This electricity reduction then is converted into emission reductions based upon the electricity emission profile for the sub-region. See SERC Midwest using Environmental Protection Agency (EPA) eGrid data (<http://cfpub.epa.gov/egridweb/view.cfm>):

(C) GHG Emissions Reduced (MT CO₂e): provide the GHG emissions reduced by multiplying (A) annual energy savings (kWh) by (B) GHG emission factor (0.00083462 MT CO₂e/kWh).

$$\begin{aligned} &\text{GHG Emissions Reduced (MT CO}_2\text{)} \\ &= (\text{A) Annual Energy Savings (kWh)} \times (\text{B) } 0.00083462 \left(\frac{\text{MT CO}_2}{\text{kWh}} \right) \end{aligned}$$

Applicants should add the total GHG emissions reduced and report on them on the “Energy Metrics” section of Form A.

Cost-Effectiveness

Cost-effectiveness (MMBtu/\$1000) represents a measure of how effective grant dollars are in achieving a given result. To calculate a project’s cost-effectiveness, divide the annual energy savings by the total funding requested, and then multiply by a conversion factor as shown in the equation below:

For each line item, provide the requested information:

(A) Annual Energy Savings (kWh): provide the expected annual energy savings (in kWh) to be achieved by replacing existing equipment with the proposed equipment.

(B) Conversion Factor: energy consumption is expressed in BTU equivalent to allow for consumption comparisons among fuels that are measured in different units. The conversion factor provided in the table (0.003413) allows converting electricity units from kWh to MMBtus.

(C) Funding Requested (\$): provide the total dollar amount that the applicant is requesting under the Industrial Energy Efficiency Program.

(D) Cost-Effectiveness (MMBtu/\$1,000): provide the cost-effectiveness of the project by multiplying the (A) annual energy savings (kWh) by (B) conversion factor and dividing it by (C) funding requested.

$$\text{Cost Effectiveness} \left(\frac{\text{MMBtu}}{\$1000} \right) = \frac{\text{Annual Energy Savings (kWh)}}{\text{Funding Requested (\$)}} \times 0.003413 \left(\frac{\text{MMBtu}}{\text{kWh} - \$1000} \right)$$

Applicants should report the total cost-effectiveness on the “Energy Metrics” section of Form A.

VII. Form F – Project Budget

This form allows the applicant to explain the project’s budget in more detail. Applicants should fill out all of the sections as explained below.

For all tables included in Form F, the following definitions apply:

“**Funding Requested**” means dollar amount that the applicant is requesting under the Industrial Energy Efficiency Program.

“**Funds Leveraged**” means any other dollars that will be applied to the project. Sources of leveraged funds include but are not limited to, applicant’s contributions, loans, utility, federal or state programs.

Budget Summary

The budget summary table provides a snapshot of the proposed budget for the project, as well as how the different budget items will be funded by the Industrial Energy Efficiency Program and other sources of leveraged funds. For each line item, provide the information requested.

Equipment and Materials:

(A) Funding Requested (\$): provide the total amount of requested Industrial Energy Efficiency Program funds that will go towards the purchase of equipment and materials necessary for the proposed project. This must be provided for all equipment and materials valued greater than \$100.

(B) Funds Leveraged (\$): provide the total amount of leveraged funds, including the applicant’s contribution that will go towards purchase of equipment and materials necessary for the proposed project.

(C) Total Costs (\$): the sum of (A) funding requested and (B) funds leveraged.

(D) Percentage (%): provide the percentage of total project costs for equipment and materials.

Direct Labor:

(A) Funding Requested (\$): provide the total amount of requested Industrial Energy Efficiency Program funds that will go towards paying for direct labor necessary for the proposed project. Direct labor includes work performed by any contractors and subcontractors.

(B) Funds Leveraged (\$): provide the total amount of leveraged funds, including the applicant’s contribution that will go towards paying for direct labor necessary for the proposed project. Direct labor includes work performed by any contractors and subcontractors.

(C) Total Costs (\$): the sum of (A) funding requested and (B) funds leveraged.

(D) Percentage (%): provide the percentage of total project costs for direct labor.

Administrative Expenses:

(A) Funding Requested (\$): provide the total amount of requested Industrial Energy Efficiency Program funds that will go towards paying for administrative costs expected to be incurred for the proposed project. **The amount requested for administrative funds cannot exceed five percent of total project costs.**

(B) Funds Leveraged (\$): provide the total amount of leveraged funds, including the applicant’s contribution that will go towards paying for administrative costs expected to be incurred for the proposed project.

(C) Total Costs (\$): the sum of (A) funding requested and (B) funds leveraged.

(D) Percentage (%): provide the percentage of total project costs for administrative expenses.

Other:

(A) Funding Requested (\$): Industrial Energy Efficiency Program funds will not be provided for other costs not included in the above categories.

(B) Funds Leveraged (\$): provide the total amount of leveraged funds, including the applicant’s contribution that will go towards paying for other costs expected to be incurred for the proposed project.

(C) Total Costs (\$): the sum of (A) funding requested and (B) funds leveraged.

(D) Percentage (%): provide the percentage of total project costs for other budget items.

Total:

(A) Funding Requested (\$): provide the total amount of requested Industrial Energy Efficiency Program funds. This is the sum of funding requested for equipment and materials, direct labor and administrative expenses.

(B) Funds Leveraged (\$): provide the total amount of leveraged funds, including the applicant’s contribution. This is the sum of proposed funds leveraged for equipment and materials, direct labor, administrative expenses and other.

(C) Total Costs (\$): the sum of (A) funding requested and (B) funds leveraged. This is the sum of total costs for equipment and materials, direct labor, administrative expenses and other.

Detailed Budget

Equipment/Materials: list all equipment and materials to be purchased for the project valued greater than \$100.

Quantity: list quantity of equipment and materials required.

Unit Cost (\$): cost per unit.

Funding Requested (\$): provide dollar amount that will be paid for with Industrial Energy Efficiency Program funds.

Funds Leveraged (\$): provide dollar amount that will be paid for by the applicant and other sources of leveraged funds.

Total Cost (\$): provide the total dollar amount for each item, this can be calculated as:

$$\text{Total (\$)} = \text{Quantity (units)} \times \text{Unit Cost} \left(\frac{\$}{\text{unit}} \right)$$

If additional rows are required to list the equipment, please include a table with the additional items as an attachment.

Direct Labor

The direct labor table lists all applicable costs for design, construction, or installation. For purposes of this program, only installation costs will be considered eligible to receive funding. For each line item, provide the information requested.

Title/Job Classification: list the title/job classification of required labor. Examples of job classifications include:

- Electrician.
- Construction workers.
- Energy auditors.
- Plumber.
- Equipment Installers.

Number of Hours: list the number of hours that the proposed laborer will be working on the project.

Billing Rate (\$/hr): hourly billing rate for the proposed laborer.

Total Cost (\$): provide the total dollar amount for each item, this can be calculated as:

$$\text{Total Cost (\$)} = \text{Billing Rate} \left(\frac{\$}{\text{hour}} \right) \times \text{Number of Hours (hours)}$$

Funding Requested (\$): provide the dollar amount that will be paid for with Industrial Energy Efficiency Program funds.

Funds Leveraged

List the proposed sources of funding that will be leveraged for this project. **Applicants must provide letters from each financial partner or funding entity, indicating the amount of funds that have been awarded/committed to the project, as an attachment to Form F.**

Source: name the state program, federal program, utility program or organization that will provide funds to the proposed project. Identify if the applicant is proposing to contribute remaining funds out of their own budget. If the applicant has applied for funds, but has not received funding yet, please indicate the anticipated source of the funding.

Date of Award: for funds that have been received, please indicate the date of award. For funds that have been applied for, please indicate the expected date of award.

Total Funds (\$): funds provided by, or requested from, the identified source.

If additional rows are required to list other sources of leveraged funds, please include a table with the additional items as an attachment.

VIII. Form G – Waste Stream

Prior to the expenditure of federal funds to dispose of sanitary or hazardous waste, the Missouri Department of Natural Resources is required to provide documentation to U.S. Department of Energy (U.S.DOE) demonstrating that an adequate disposal plan has been prepared for sanitary or hazardous waste generated by the proposed activities.

Applicants are therefore required to submit information on the expected waste stream of the proposed project. Sanitary or hazardous waste includes, but is not limited to, old light bulbs, lead ballasts, piping, roofing material, discarded equipment, debris, asbestos, etc.

Applicants should:

- Indicate if the proposed project will generate a waste stream.
- Describe the identified waste stream, if applicable.
- Describe the proposed methodology for waste handling and disposal. For example, how would mercury or sodium vapor lamps be disposed of? How will potentially hazardous material (e.g. asbestos containing materials, polychlorinated biphenyl (PCBs), etc.) be handled and disposed of?

IX. Form H – National Environmental Protection Act

The National Environmental Protection Act of 1970 (NEPA), as amended (42 U.S.C. 4371, *et seq.*) requires federal agencies to consider the potential environmental impacts of their proposed actions. Awards issued under *Energize Missouri Industries* will be funded pursuant to a grant from U.S. DOE to the Missouri Department of Natural Resources. U.S. DOE must comply with NEPA when awarding grants to states. Accordingly, Subgrantees may not take action using federal funds for projects that may have an adverse effect on the environment prior to U.S. DOE providing a final NEPA determination regarding the selected projects.

For more information regarding NEPA see U.S.DOE's NEPA Web site:

<http://www.gc.energy.gov/NEPA/>

Based on a review of the list of activities that funds can be utilized for under the State Energy Program (SEP), U.S. DOE has determined that projects that meet certain criteria and conditions will likely be classified as categorical exclusions and will not require a NEPA review.

The following activities are considered Categorical Exclusions from NEPA:

1. Funding energy efficiency retrofits, provided that:
 - Projects Are Limited To: installation of insulation; installation of energy efficient lighting; HVAC upgrades; weather sealing; purchase and installation of ENERGY STAR appliances; replacement of windows and doors; high efficiency shower/faucet upgrades; and installation of solar powered appliances with improved efficiency.
2. Development, implementation, and installation of onsite renewable energy technology that generates electricity from renewable resources, provided that:
 - Projects Are Limited To:
 - Solar Electricity/Photovoltaic - appropriately sized system or unit on existing rooftops and parking shade structures; or a 60 KW system or smaller unit installed on the ground within the boundaries of an existing facility.
 - Wind Turbine - 20 KW or smaller.
 - Solar Thermal - system must be 20 KW or smaller.
 - Solar Thermal Hot Water - appropriately sized for residences or small commercial buildings.
 - Ground Source Heat Pump - 5.5 tons of capacity or smaller, horizontal/vertical, ground, closed-loop system.
 - Combined Heat and Power System - boilers sized appropriately for the buildings in which they are located.
 - Biomass Thermal - 3 MMBTUs per hour or smaller system with appropriate Best Available Control Technologies (BACT) installed and operated.
3. Development, implementation and installation of energy efficient or renewable energy-powered emergency systems (lighting, cooling, heat, shelter) installed in existing buildings and facilities.
4. Installation of alternative fueling pumps and systems (but not underground storage tanks) installed on existing facilities (other than a large biorefinery); purchase of alternative fuel vehicles.
5. Development and implementation of training programs.

6. Development and implementation of building codes and inspection services, and associated training and enforcement of such codes in order to support code compliance and promote building energy efficiency.
7. Implementing financial incentive programs such as rebates and energy savings performance contracts for existing facilities or for energy efficient equipment, provided that the incentives are not so large that they would be deemed to be grants that create projects that would not otherwise exist. (For example, giving a wind farm that cost \$100 million a sum of \$50 million and calling it a rebate would not fall within this Bounded Category).

Categorical Exclusions are not absolute. A project activity that falls within a categorical exclusion may require additional NEPA review if it involves “extraordinary circumstances” that may affect the significance of its environmental effects. “Extraordinary Circumstances” are defined as “unique situations presented by specific proposals, such as scientific controversy about the environmental effects of the proposal; uncertain effects or effects involving unique or unknown risks; or unresolved conflicts concerning alternate uses of available resources within the meaning of section 102(2)(E) of NEPA [42 U.S.C. §4332(e)].

Applicants proposing projects that fall within the categories included above will not be required to submit any NEPA documentation at this time.

Applicants proposing projects in support of other activities NOT listed above may also qualify for categorical exclusion status. However, this determination cannot be made without a NEPA review. **Therefore, all applicants proposing projects NOT included in the list above must submit a completed EF-1 Environmental Questionnaire (Exhibit E).**

If DOE determines that NEPA requires the preparation of an Environmental Assessment (EA) or Environmental Impact Statement (EIS) for a proposed project, the **applicant will be responsible for paying the cost of preparing an EA or EIS.** Preparation and review of NEPA documents can require 6-24 months. Accordingly, applicants should carefully consider whether such programs are consistent with the objectives of the ARRA and will allow the expenditure of funds by the Jan. 31, 2012 deadline.

Applicability of NEPA to the Proposed Project

All applicants must fill out Form H, by selecting the box applicable to their project:

- The proposed project is categorically excluded from NEPA because it falls within the following category and does not involve "extraordinary circumstances" within the meaning of 10 C.F.R. Section 1021.410.
 - Funding energy efficiency retrofits, provided that projects are limited to: Installation of insulation; installation of energy efficient lighting; HVAC upgrades; weather sealing; purchase and installation of ENERGY STAR appliances; replacement of windows and doors; high efficiency shower/faucet upgrades; and installation of solar powered appliances with improved efficiency.
 - Development, implementation, and installation of onsite renewable energy technology that generates electricity from renewable resources, provided that projects are limited to:

- Solar Electricity/Photovoltaic - appropriately sized system or unit on existing rooftops and parking shade structures; or a 60 KW system or smaller unit installed on the ground within the boundaries of an existing facility.
 - Wind Turbine - 20 KW or smaller.
 - Solar Thermal - system must be 20 KW or smaller.
 - Solar Thermal Hot Water - appropriately sized for residences or small commercial buildings.
 - Ground Source Heat Pump - 5.5 tons of capacity or smaller, horizontal/vertical, ground, closed-loop system.
 - Combined Heat and Power System - boilers sized appropriately for the buildings in which they are located.
 - Biomass Thermal - 3 MMBTUs per hour or smaller system with appropriate Best Available Control Technologies (BACT) installed and operated.
- The proposed project falls within the categories listed above but may involve "extraordinary circumstances" within the meaning of 10 C.F.R Section 1021.410.
- The proposed project is not categorically excluded.

If the project involves “extraordinary circumstances” or if the project is not categorically excluded, then the applicant must **provide the reasons** for this. In addition, the applicant **must fill out Exhibit E – Environmental Questionnaire (EF-1)** when the project is not categorically excluded.

X. Form I – National Historic Preservation Act

Prior to the expenditure of federal funds to alter any structure or site, the Missouri Department of Natural Resources is required to comply with the requirements of Section 106 of the National Historic Preservation Act (NHPA). Section 106 applies to historic properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP).

In order for the department to evaluate whether or not a proposed project requires additional submittals of information, **all applicants are required to provide background information on their proposed project sites by filling out Form I.**

Description of Project Site

Applicants **MUST** indicate if their proposed project involves a building or structure included in the NRHP or one eligible for inclusion in the NRHP.

If the applicant is unsure whether the building is included, it must request a record search from the Missouri State Historical Preservation Office (SHPO) by contacting:

State Historic Preservation Office
<http://www.dnr.mo.gov/shpo/index.html>
 P.O. Box 176, Jefferson City, MO 65102
 800-361-4827 / 573-751-7858
 E-mail: shpo@dnr.mo.gov

If the proposed project involves a building or structure listed on or eligible for the NRHP, the applicant must submit additional information by completing Item 5 of the EF-1 Environmental Questionnaire (Exhibit E of the Program Guidelines).

Applicants **MUST** provide information on the proposed project site (industrial facility) by completing the following table:

Site Name	Site Address	Age of Original Structure (Year of Completion)
A	B	C

- A** Include the name of the facility where energy efficiency work will be performed.
- B** Provide the address for said facility, including street address, city, county and ZIP code + 4.
- C** Provide the estimated year of original construction completion for the industrial facility.