

Opportunity Title:	SEP Formula Grants - Recovery Act
Offering Agency:	National Energy Technology Laboratory
CFDA Number:	81.041
CFDA Description:	State Energy Program
Opportunity Number:	DE-FOA-000052
Competition ID:	
Opportunity Open Date:	03/12/2009
Opportunity Close Date:	05/12/2009
Agency Contact:	Sheldon Funk Contract Specialist E-mail: sheldon.funk@netl.doe.gov Phone: 304-285-0204

This electronic grants application is intended to be used to apply for the specific Federal funding opportunity referenced here.

If the Federal funding opportunity listed is not the opportunity for which you want to apply, close this application package by clicking on the "Cancel" button at the top of this screen. You will then need to locate the correct Federal funding opportunity, download its application and then apply.

This opportunity is only open to organizations, applicants who are submitting grant applications on behalf of a company, state, local or tribal government, academia, or other type of organization.

* Application Filing Name:

Mandatory Documents

Move Form to Complete

Move Form to Delete

Mandatory Documents for Submission

Project/Performance Site Location(s)

Other Attachments Form

Optional Documents

Move Form to Submission List

Move Form to Delete

Optional Documents for Submission

Instructions

- 1** Enter a name for the application in the Application Filing Name field.

 - This application can be completed in its entirety offline; however, you will need to login to the Grants.gov website during the submission process.
 - You can save your application at any time by clicking the "Save" button at the top of your screen.
 - The "Save & Submit" button will not be functional until all required data fields in the application are completed and you clicked on the "Check Package for Errors" button and confirmed all data required data fields are completed.

- 2** Open and complete all of the documents listed in the "Mandatory Documents" box. Complete the SF-424 form first.

 - It is recommended that the SF-424 form be the first form completed for the application package. Data entered on the SF-424 will populate data fields in other mandatory and optional forms and the user cannot enter data in these fields.
 - The forms listed in the "Mandatory Documents" box and "Optional Documents" may be predefined forms, such as SF-424, forms where a document needs to be attached, such as the Project Narrative or a combination of both. "Mandatory Documents" are required for this application. "Optional Documents" can be used to provide additional support for this application or may be required for specific types of grant activity. Reference the application package instructions for more information regarding "Optional Documents".
 - To open and complete a form, simply click on the form's name to select the item and then click on the => button. This will move the document to the appropriate "Documents for Submission" box and the form will be automatically added to your application package. To view the form, scroll down the screen or select the form name and click on the "Open Form" button to begin completing the required data fields. To remove a form/document from the "Documents for Submission" box, click the document name to select it, and then click the <= button. This will return the form/document to the "Mandatory Documents" or "Optional Documents" box.
 - All documents listed in the "Mandatory Documents" box must be moved to the "Mandatory Documents for Submission" box. When you open a required form, the fields which must be completed are highlighted in yellow with a red border. Optional fields and completed fields are displayed in white. If you enter invalid or incomplete information in a field, you will receive an error message.

- 3** Click the "Save & Submit" button to submit your application to Grants.gov.

 - Once you have properly completed all required documents and attached any required or optional documentation, save the completed application by clicking on the "Save" button.
 - Click on the "Check Package for Errors" button to ensure that you have completed all required data fields. Correct any errors or if none are found, save the application package.
 - The "Save & Submit" button will become active; click on the "Save & Submit" button to begin the application submission process.
 - You will be taken to the applicant login page to enter your Grants.gov username and password. Follow all onscreen instructions for submission.

Application for Federal Assistance SF-424

Version 02

* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	* If Revision, select appropriate letter(s): _____ * Other (Specify) _____
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* 3. Date Received: Completed by Grants.gov upon submission.	4. Applicant Identifier: _____
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5a. Federal Entity Identifier: _____	* 5b. Federal Award Identifier: De-FOA-0000052
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State Use Only:

6. Date Received by State: 03/12/2009	7. State Application Identifier: _____
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8. APPLICANT INFORMATION:

* a. Legal Name: West Virginia Division of Energy

* b. Employer/Taxpayer Identification Number (EIN/TIN): 51-0632254	* c. Organizational DUNS: 801238630
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d. Address:

* Street1:	1900 Kanawha Blvd. E.
Street2:	State Capitol Complex, Bldg 6 Room 645
* City:	Charleston
County:	Kanawha
* State:	WV: West Virginia
Province:	
* Country:	USA: UNITED STATES
* Zip / Postal Code:	25305

e. Organizational Unit:

Department Name: _____	Division Name: _____
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f. Name and contact information of person to be contacted on matters involving this application:

Prefix: Mr.	* First Name: John
Middle Name: F.	
* Last Name: Herholdt	
Suffix: Jr.	

Title: Director, West Virginia Division of Energy

Organizational Affiliation:
West Virginia Department of Commerce

* Telephone Number: 304-558-2234	Fax Number: 304-558-0362
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* Email: jherholdt@energywv.org

Application for Federal Assistance SF-424

Version 02

9. Type of Applicant 1: Select Applicant Type:

A: State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

National Energy Technology Laboratory

11. Catalog of Federal Domestic Assistance Number:

81.041

CFDA Title:

State Energy Program

*** 12. Funding Opportunity Number:**

DE-FOA-000052

* Title:

SEP Formula Grants - Recovery Act

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Entire state

*** 15. Descriptive Title of Applicant's Project:**

State Energy Program Activities Supported Through The American Recovery and Reinvestment Act

Attach supporting documents as specified in agency instructions.

Application for Federal Assistance SF-424

Version 02

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	<input type="text" value="32,746,000.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="32,746,000.00"/>

* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?

- a. This application was made available to the State under the Executive Order 12372 Process for review on
- b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- c. Program is not covered by E.O. 12372.

* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)

Yes No

21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)

** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:
Middle Name:
* Last Name:
Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative: * Date Signed:

Application for Federal Assistance SF-424

Version 02

*** Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.

Project/Performance Site Location(s)

Project/Performance Site Primary Location I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: WV Division of Energy

DUNS Number: 8012386300000

* Street1: 1900 Kanawha Blvd. E.

Street2: State Capitol Complex, Bldg 6, Room 645

* City: Charleston County: Kanawha

* State: WV: West Virginia

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 25305-0009 * Project/ Performance Site Congressional District: WV-ALL

Project/Performance Site Location 1 I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

DUNS Number:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

DOE F 540.1
(08/05)

U.S. Department of Energy STATE ENERGY PROGRAM (SEP) NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Administration

1. Market (choose one):

<input checked="" type="checkbox"/> Buildings	<input type="checkbox"/> Industry
<input type="checkbox"/> Electric Power and Renewable Energy	<input type="checkbox"/> Policy, Planning and Energy Security
<input type="checkbox"/> Energy Education	<input type="checkbox"/> Transportation

2. State: WV

3. Program Year: 2009

Date Start: 04/20/2009 Date End: 04/30/2012

4. Topics Involved in the Overall Program Market (choose all that apply):

<input type="checkbox"/> Agriculture	<input type="checkbox"/> Federal Energy Management Program	<input checked="" type="checkbox"/> Procurement of efficient products **
<input type="checkbox"/> Alternative Fuels	<input checked="" type="checkbox"/> Federal, state and local facilities	<input type="checkbox"/> Public information
<input type="checkbox"/> Appliance efficiency and standards	<input checked="" type="checkbox"/> Financing energy programs	<input type="checkbox"/> Rating and labeling
<input type="checkbox"/> Bioenergy and biobased products	<input type="checkbox"/> Fuel cells	<input type="checkbox"/> Rebuild America
<input type="checkbox"/> Biomass Power	<input type="checkbox"/> General energy efficiency for industry	<input type="checkbox"/> Residential buildings
<input type="checkbox"/> Building America	<input type="checkbox"/> Geothermal	<input type="checkbox"/> Right turn on red **
<input type="checkbox"/> Carpools, vanpools, and ridesharing **	<input type="checkbox"/> Green power programs	<input type="checkbox"/> Schools
<input type="checkbox"/> Clean Cities	<input type="checkbox"/> Heavy vehicles and trucks	<input type="checkbox"/> Solar power
<input type="checkbox"/> Climate change planning	<input type="checkbox"/> Home energy ratings	<input checked="" type="checkbox"/> State energy strategic plans
<input type="checkbox"/> Combined heat and power	<input type="checkbox"/> Hydrogen	<input type="checkbox"/> Telecommuting
<input type="checkbox"/> Commercial buildings	<input type="checkbox"/> Hydropower	<input type="checkbox"/> Thermal **
<input type="checkbox"/> Curriculum development	<input type="checkbox"/> Industrial processing	<input type="checkbox"/> Traffic signals
<input checked="" type="checkbox"/> Demand reduction	<input type="checkbox"/> Industries of the future	<input type="checkbox"/> Transmission and infrastructure reliability
<input type="checkbox"/> Distributed energy generation	<input checked="" type="checkbox"/> Lighting **	<input type="checkbox"/> Transportation alternatives
<input type="checkbox"/> Energy and environment	<input type="checkbox"/> Low-income Weatherization	<input type="checkbox"/> Waste management and recycling
<input type="checkbox"/> Energy building codes	<input type="checkbox"/> Manufacturing	<input type="checkbox"/> Water systems
<input type="checkbox"/> Energy consumption and price statistics	<input type="checkbox"/> Motors and other industrial systems	<input type="checkbox"/> Wind energy
<input type="checkbox"/> Energy emergency planning	<input type="checkbox"/> Performance contracting	
<input checked="" type="checkbox"/> ENERGY STAR	<input type="checkbox"/> Policy and energy legislation	

5. Estimated Annual Energy Savings : 23,664,118.00 MBtus

6. Description (executive summary of goals and objectives)* :

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U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
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(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Administration

Energy Efficiency in State Buildings: Administration

Goals:

- Total BTU savings estimated at 23,664,117,870
- To reduce lighting energy costs 15-40 percent, depending upon project
- To reduce other energy costs 7-40 percent, depending upon project
- To create or retain 37 jobs

Scope: The Energy Efficiency in State Buildings: Administration program will support energy efficiency projects identified at state-owned office buildings, reducing taxpayers' costs for government operations. Using the expertise of on-staff engineers and architects, the West Virginia Department of Administration - which is responsible for the operation and maintenance of these buildings - developed a list of seven projects including lighting, window, HVAC and electrical upgrades that could be implemented quickly using existing contract service providers, in-house staff or yet-to-be awarded contractors.

Project 1: LIGHTING FIXTURE UPGRADES. Replace obsolete T-12 lighting with new T-5 HO smart lighting and light-harvesting technology to capture sunlight in buildings when applicable. Reduce lighting/energy requirements by 40%.

Building # 22

Sq Ft: 66200

BTU Savings: 535184102.4

Building # 36

Sq Ft: 85000

BTU Savings: 989662337.3

Building # 4

Sq Ft: 92500

BTU Savings 722609971.2

Building # 84

Sq Ft: 36000

BTU Savings: 291036672

Building # 25

Sq Ft: 57625

BTU Savings: 241067729.3

Building # 23

Sq Ft: 46500

BTU Savings 325541560.3

PROJECT 1 TOTALS:

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET**

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Administration

Sq Ft: 383,825
BTU Savings: 3,105,102,372
Jobs Created/Retained: 6

Project 2: WINDOW REPLACEMENTS. Replacement of non-historic windows with high efficiency E-glass to reduce heat loss. Reduction of heat loss and energy requirements by 30%.

Building # 5
Sq Ft: 247115
BTU Savings: 2312640000

Building # 6
Sq Ft: 202185
BTU Savings: 2593140000

Building # 7
Sq Ft: 37500
BTU Savings: 225280000

Building # 23
Sq Ft: 46500
BTU Savings: 359260000

Building #25
Sq Ft: 57625
BTU Savings: 378180000

Building # 84
Sq Ft: 36000
BTU Savings: 236060000

PROJECT 2 TOTALS:
Sq Ft: 626,925
BTU Savings: 6,104,560,000
Jobs Created/Retained: 5

Project 3: AUTO LIGHT SWITCHING/TIMERS /SENSORS. Installation of auto light cutoffs in zone, office or common areas to reduce lighting of unoccupied space, watt miser sensors for vending machines, timers or sensors for devices. Reduction in lighting and appliance usage by 15-20%

Building # 22
Sq Ft: 66200

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET**

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Administration

BTU Savings: 200694038.4

Building # 36

Sq Ft: 85000

BTU Savings: 371123376.5

Building # 4

Sq Ft: 92500

BTU Savings: 270978739.2

Building # 84

Sq Ft: 36000

BTU Savings: 109138752

Building #25

Sq Ft: 57625

BTU Savings: 90400398.48

Building #23

Sq Ft: 46500

BTU Savings: 122078085.1

Building #1

Sq Ft: 535600

BTU Savings: 1194686693

Building # 32

Sq Ft: 43000

BTU Savings: 139349374.6

Building # 5

Sq Ft: 247115

BTU Savings: 222869607.1

Building # 6

Sq Ft: 202185

BTU Savings 746169234.1

Building # 23

Sq Ft: 46500

BTU Savings: 122078085.1

Building #7

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U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Administration

Sq Ft: 37500
 BTU Savings: 113657522.4

PROJECT 3 TOTALS:

Sq Ft: 1,495,725
BTU Savings: 3,703,223,906
Jobs created/retained: 6

Project 4: EXTERIOR LIGHTING UPGRADES. Replace exterior lighting to low-impact (reduce sky lighting) fixtures and bulbs, tie into Central Energy Management System to reduce wasted lighting based on timers or available light sensors. Reduction in lighting costs by 30%

Building # 1
 Sq Ft: 535600
 BTU Savings: 2389373387

Building # 32
 Sq Ft: 43000
 BTU Savings 278698749.1

Building #5
 Sq Ft: 247115
 BTU Savings 445739214.2

Building #37
 Sq Ft: 180088
 BTU Savings: 1013749473

Building # 34
 Sq Ft: 39010
 BTU Savings: 78261989.76

Building # 25
 Sq Ft: 57625
 BTU Savings: 180800797

PROJECT 4 TOTALS:

Sq Ft: 1,102,438
BTU Savings: 4,386,623,610
Jobs created/retained: 4

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U.S. Department of Energy
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NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Administration

Project 5: UPGRADE ENERGY MANAGEMENT SOFTWARE/COMMUNICATION. Upgrade buildings that are not centrally monitored or controlled by energy management system (EMS) to report to centrally located Control Center on Capitol Complex campus to ensure compliance with energy policy limits and hours of operation setbacks for occupancy. Will optimize the use of heating and cooling systems. Requires a combination of sensor replacements from 1970s-era pneumatic controls to modern solid-state electronic controls of equipment, network hubs, AMUs and other control devices installation required. Reduction in energy consumption by 7-10%

Building # 5
Sq Ft: 247115
BTU Savings: 735840000

Building #6
Sq Ft: 202185
BTU Savings: 825090000

Building #7
Sq Ft: 37500
BTU Savings: 71680000

Building # 22
Sq Ft: 66200
BTU Savings: 162750000

Building #23
Sq Ft: 46500
BTU Savings: 114310000

Building #25
Sq Ft: 57625
BTU Savings: 120330000

Building # 84
Sq Ft: 36000
BTU Savings: 75110000

Building # 36
Sq Ft: 85000
BTU Savings: 93030000

Building # 1
Sq Ft: 535600

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U.S. Department of Energy
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Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Administration

BTU Savings: 1378720000

PROJECT 5 TOTALS:**Sq Ft: 1,313,725****BTU Savings: 3,576,860,000****Jobs Created/Retained: 5**

Project 6: HEATING/ COOLING UNIT UPGRADES. Numerous buildings have units 20 years old or older and have exceeded projected useful life. These HVAC or heating units are inefficient; replacement of units with new ENERGY STAR® units will reduce utility consumption of electricity or natural gas depending on application. Upgrade of these stand-alone buildings, not on the central campus, throughout West Virginia would reduce annual heating and cooling costs.

Building # 22

Sq Ft: 66200

BTU Savings: 279000000

Building # 15

Sq Ft: 11625

BTU Savings: 90096825.6

Building # 36

Sq Ft: 85000

BTU Savings: 159480000

Building # 23

Sq Ft: 46500

BTU Savings: 195960000

Building # 25

Sq Ft: 57625

BTU Savings: 206280000

Building # 84

Sq Ft: 36000

BTU Savings: 128760000

PROJECT 6 TOTALS:**Sq Ft: 302,950****BTU Savings: 1,059,576,826****Jobs created/retained: 5**

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OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Administration

Project 7: ELECTRICAL PANEL UPGRADES. This project will upgrade numerous electrical building service panels that may be overloaded, in need of repair or replacement. Obsolete switch gear leaks electricity, is a safety hazard and contributes to the premature replacement of electrical equipment and appliances.

Building # 22
Sq Ft: 66200
BTU Savings: 234143044.8

Building #36
Sq Ft: 85000
BTU Savings: 432977272.6

Building # 4
Sq Ft: 92500
BTU Savings: 316141862.4

Building # 84
Sq Ft: 36000
BTU Savings: 127328544

Building # 25
Sq Ft: 57625
BTU Savings: 105467131.6

Building # 23
Sq Ft: 46500
BTU Savings: 142424432.6

Building # 1
Sq Ft: 535600
BTU Savings: 1393801142

Building # 32
Sq Ft: 43000
BTU Savings: 162574270.3

Building # 5
Sq Ft: 247115
BTU Savings: 260014541.6

Building # 6

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OMB: Control No. 1910-5126
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(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Administration

Sq Ft: 202185
 BTU Savings: 870530773.1

Building # 23
 Sq Ft: 46500
 BTU Savings: 142424432.6

Building # 7
 Sq Ft: 37500
 BTU Savings: 132600442.8

PROJECT 7 TOTALS:

Sq Ft: 1,495,725
BTU Savings: 1,728,171,156
Jobs created/retained: 6

Bdg. 1: 1900 Kanawha Blvd (State Capitol Building) Charleston, WV, 535,600 ft2
Bdg. 4: 112 California Avenue (Workforce West Virginia) Charleston, WV, 92,500 ft2
Bdg. 5: 1900 Washington Street E. (Multi-use building/Dept. of Highways) Charleston, WV, 247,115 ft2
Bdg. 6: 1900 Washington Street E. (Multi-use/Education Dept) Charleston, WV, 202,185 ft2
Bdg. 7: 1900 Washington Street E. (Conference and Training Center) Charleston, WV, 37,500 ft2
Bdg. 15: 2019 Washington Street E. (Purchasing Division) Charleston, WV, 46,500 ft2
Bdg. 22: Tax & Revenue Building, 1001 Lee Street, Charleston, WV, 66,200 ft2
Bdg. 23: 407 Neville Street, (Multi-use state office Complex) Beckley, WV, 46,500 ft2
Bdg. 25: 5th Avenue and Avery Streets (Multi-use state office Complex) Parkersburg, WV, 57,625 ft2
Bdg. 32: 2699 Park Avenue, (Multi-use state office Complex) Huntington, WV, 43,000 ft2
Bdg. 34: Consolidated State Office Building, Weirton, WV, 39,010 ft2
Bdg. 36: One Davis Square (DHHR & Office of Technology) Charleston, WV, 85,000 ft2
Bdg. 37: Department of Environmental Protection, Kanawha City, WV, 180,088 ft2
Bdg. 84: 1409 Greenbrier Street (Corrections, Division of Leasing) Charleston, WV. 36,000 ft2

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**U.S. Department of Energy
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NARRATIVE INFORMATION WORKSHEET**

OMB: Control No. 1910-5126
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(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Administration

7. Program Year Milestones* :

	Milestone	Planned (Number)
1	YEAR 1/1ST QUARTER: Finalize arrangement with WV Div of Energy	1
2	YEAR 1/1ST QUARTER: Implement requests for quotes	1
3	YEAR 1/1ST QUARTER: Begin projects that do not require RFQ	1
4	YEAR 1/1ST QUARTER: Order materials	1
5	YEAR 1/1ST QUARTER: All projects begin	1
6	YEAR 1/2ND QUARTER: All projects completed	1

8. Standard metrics (required)**

JOB METRICS	Planned
Jobs Created	0
Jobs Retained	37
Total Jobs	37

9. Specific metric activity (required)**

SPECIFIC METRICS	Planned
Building Retrofits	
Buildings retrofitted, by sector	
Buildings retrofitted (Public)	14
Square footage retrofitted (Public)	1,714,823

10. User specified metrics (optional)*

METRICS	Planned

11. Program Year Funds by Source*

a. SEP Grant (all funds in the approved budget)	
DOE	\$5,002,035.00
Market Budget Total	\$5,002,035.00
b. Leveraged funds anticipated (outside approved budget)	

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U.S. Department of Energy STATE ENERGY PROGRAM (SEP) NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Corrections

1. Market (choose one):

<input checked="" type="checkbox"/> Buildings	<input type="checkbox"/> Industry
<input type="checkbox"/> Electric Power and Renewable Energy	<input type="checkbox"/> Policy, Planning and Energy Security
<input type="checkbox"/> Energy Education	<input type="checkbox"/> Transportation

2. State: WV

3. Program Year: 2009

Date Start: 04/20/2009 Date End: 04/30/2012

4. Topics Involved in the Overall Program Market (choose all that apply):

<input type="checkbox"/> Agriculture	<input type="checkbox"/> Federal Energy Management Program	<input checked="" type="checkbox"/> Procurement of efficient products **
<input type="checkbox"/> Alternative Fuels	<input checked="" type="checkbox"/> Federal, state and local facilities	<input type="checkbox"/> Public information
<input type="checkbox"/> Appliance efficiency and standards	<input checked="" type="checkbox"/> Financing energy programs	<input type="checkbox"/> Rating and labeling
<input type="checkbox"/> Bioenergy and biobased products	<input type="checkbox"/> Fuel cells	<input type="checkbox"/> Rebuild America
<input type="checkbox"/> Biomass Power	<input type="checkbox"/> General energy efficiency for industry	<input type="checkbox"/> Residential buildings
<input type="checkbox"/> Building America	<input type="checkbox"/> Geothermal	<input type="checkbox"/> Right turn on red **
<input type="checkbox"/> Carpools, vanpools, and ridesharing **	<input type="checkbox"/> Green power programs	<input type="checkbox"/> Schools
<input type="checkbox"/> Clean Cities	<input type="checkbox"/> Heavy vehicles and trucks	<input type="checkbox"/> Solar power
<input type="checkbox"/> Climate change planning	<input type="checkbox"/> Home energy ratings	<input checked="" type="checkbox"/> State energy strategic plans
<input type="checkbox"/> Combined heat and power	<input type="checkbox"/> Hydrogen	<input type="checkbox"/> Telecommuting
<input type="checkbox"/> Commercial buildings	<input type="checkbox"/> Hydropower	<input type="checkbox"/> Thermal **
<input type="checkbox"/> Curriculum development	<input type="checkbox"/> Industrial processing	<input type="checkbox"/> Traffic signals
<input checked="" type="checkbox"/> Demand reduction	<input type="checkbox"/> Industries of the future	<input type="checkbox"/> Transmission and infrastructure reliability
<input type="checkbox"/> Distributed energy generation	<input type="checkbox"/> Lighting **	<input type="checkbox"/> Transportation alternatives
<input type="checkbox"/> Energy and environment	<input type="checkbox"/> Low-income Weatherization	<input type="checkbox"/> Waste management and recycling
<input type="checkbox"/> Energy building codes	<input type="checkbox"/> Manufacturing	<input type="checkbox"/> Water systems
<input type="checkbox"/> Energy consumption and price statistics	<input type="checkbox"/> Motors and other industrial systems	<input type="checkbox"/> Wind energy
<input type="checkbox"/> Energy emergency planning	<input checked="" type="checkbox"/> Performance contracting	
<input type="checkbox"/> ENERGY STAR	<input type="checkbox"/> Policy and energy legislation	

5. Estimated Annual Energy Savings : 446,415,888.00 MBtus

6. Description (executive summary of goals and objectives)* :

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Corrections

Energy Efficiency in State Buildings: Corrections**Budget** (Contractual): \$7,194,880**Goals:**

Total BTU savings estimated at 446,415,888,479
 To create or retain 109 jobs

Scope: The Energy Efficiency in State Buildings: Corrections program will support energy efficiency projects identified at state correctional institutions, reducing taxpayers' costs for government operations. Using the expertise of a performance contractor, the West Virginia Division of Corrections - which is responsible for the operation and maintenance of these buildings - developed a list of projects at three facilities - Huttonsville, Mt. Olive and Pruntytown. One of the major goals of this effort is to upgrade facility mechanical and electrical infrastructure to increase systems' reliability and reduce life-cycle costs.

Huttonsville, a medium-security prison, is our state's most expensive state facility. Recently the state purchased a new natural gas-fired boiler system. Through this program, a new natural gas line will be constructed at a cost of \$2.1 million to complete the conversion from oil to domestic natural gas. This conversion will save the facility \$400,597 per year, with a five-year payback period.

Additionally, window replacements at Denmar will be contracted separately.

Funds could be used to pay the costs of retrofits identified in energy service company (ESCO) agreements. These agreements must be competitively bid in accordance with state procurement standards. Energy performance contracts also may augment retrofitting activities to maximize the utilization of funds and a further reduction of energy usage.

PROJECT 1: Huttonsville Correctional Center

Fuel switching from oil to natural gas. Involves construction of 7.6-mile, 6-inch gas main

BTU Savings: 56,514,851,077 *

Jobs created/retained: 7

PROJECT 2: Denmar Correctional Center

Energy efficient window replacement

Sq Ft: 90,000

BTU Savings: 7,780,086,402*

Jobs created/retained: 12

PROJECT 3: Mt. Olive / Huttonsville / Pruntytown

Energy-saving infrastructure upgrade by energy service company

Sq Ft: 799,000

BTU Savings: 382,120,951,000

Jobs created/retained: 90

* WV Division of Energy estimates.

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Corrections

7. Program Year Milestones* :

	Milestone	Planned (Number)
1	Year 1 / 1st Quarter: Project 1 - Begin installation of transmission pipeline	1
2	Year 1 / 1st Quarter: Project 2 - Begin window replacement	1
3	Year 1 / 1st Quarter: Project 3 - Facility improvement measure chosen	1
4	Year 1 / 2nd Quarter: Project 1 - Continue installation of transmission pipeline	1
5	Year 1 / 2nd Quarter: Project 2 - Continue window replacement	1
6	Year 1 / 2nd Quarter: Project 3 - Facility improvements implemented	1
7	Year 1 / 3rd Quarter: Project 1 - Continue installation of transmission pipeline	1
8	Year 1 / 3rd Quarter: Project 2 - Continue window replacement	1
9	Year 1 / 3rd Quarter: Project 3 - Facility improvements implemented	1
10	Year 1 / 4th Quarter: Project 1 - Continue installation of transmission pipeline	1
11	Year 1 / 4th Quarter: Project 2 - Continue window replacement	1
12	Year 1 / 4th Quarter: Project 3 - Facility improvements implemented	1
13	Year 2 / 1st Quarter: Project 1 - Continue installation of transmission pipeline	1
14	Year 2 / 1st Quarter: Project 2 - Continue window replacement	1
15	Year 2 / 1st Quarter: Project 3 - Facility improvements implemented	1
16	Year 2 / 2nd Quarter: Project 1 - Complete installation of transmission pipeline	1
17	Year 2 / 2nd Quarter: Project 2 - Complete window replacement	1
18	Year 2 / 2nd Quarter: Project 3 - Facility improvements completed	0

8. Standard metrics (required)**

JOB METRICS	Planned
Jobs Created	0
Jobs Retained	109
Total Jobs	109

9. Specific metric activity (required)**

SPECIFIC METRICS	Planned
Building Retrofits	
Buildings retrofitted, by sector	
Buildings retrofitted (Institutional)	4
Square footage retrofitted (Institutional)	889,000

10. User specified metrics (optional)*

METRICS	Planned

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U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Corrections

11. Program Year Funds by Source*

a. SEP Grant (all funds in the approved budget)	
DOE	\$7,194,880.00
Market Budget Total	\$7,194,880.00
b. Leveraged funds anticipated (outside approved budget)	

DOE F 540.1
(08/05)

U.S. Department of Energy STATE ENERGY PROGRAM (SEP) NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Health & Human Resources

I. Market (choose one):

<input checked="" type="checkbox"/> Buildings <input type="checkbox"/> Electric Power and Renewable Energy <input type="checkbox"/> Energy Education	<input type="checkbox"/> Industry <input type="checkbox"/> Policy, Planning and Energy Security <input type="checkbox"/> Transportation
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2. State: WV

3. Program Year: 2009

Date Start: 04/20/2009 Date End: 04/30/2012

4. Topics Involved in the Overall Program Market (choose all that apply):

<input type="checkbox"/> Agriculture <input type="checkbox"/> Alternative Fuels <input type="checkbox"/> Appliance efficiency and standards <input type="checkbox"/> Bioenergy and biobased products <input type="checkbox"/> Biomass Power <input type="checkbox"/> Building America <input type="checkbox"/> Carpools, vanpools, and ridesharing ** <input type="checkbox"/> Clean Cities <input type="checkbox"/> Climate change planning <input type="checkbox"/> Combined heat and power <input type="checkbox"/> Commercial buildings <input type="checkbox"/> Curriculum development <input checked="" type="checkbox"/> Demand reduction <input type="checkbox"/> Distributed energy generation <input type="checkbox"/> Energy and environment <input type="checkbox"/> Energy building codes <input type="checkbox"/> Energy consumption and price statistics <input type="checkbox"/> Energy emergency planning <input type="checkbox"/> ENERGY STAR	<input type="checkbox"/> Federal Energy Management Program <input checked="" type="checkbox"/> Federal, state and local facilities <input checked="" type="checkbox"/> Financing energy programs <input type="checkbox"/> Fuel cells <input type="checkbox"/> General energy efficiency for industry <input type="checkbox"/> Geothermal <input type="checkbox"/> Green power programs <input type="checkbox"/> Heavy vehicles and trucks <input type="checkbox"/> Home energy ratings <input type="checkbox"/> Hydrogen <input type="checkbox"/> Hydropower <input type="checkbox"/> Industrial processing <input type="checkbox"/> Industries of the future <input type="checkbox"/> Lighting ** <input type="checkbox"/> Low-income Weatherization <input type="checkbox"/> Manufacturing <input type="checkbox"/> Motors and other industrial systems <input checked="" type="checkbox"/> Performance contracting <input type="checkbox"/> Policy and energy legislation	<input checked="" type="checkbox"/> Procurement of efficient products ** <input type="checkbox"/> Public information <input type="checkbox"/> Rating and labeling <input type="checkbox"/> Rebuild America <input type="checkbox"/> Residential buildings <input type="checkbox"/> Right turn on red ** <input type="checkbox"/> Schools <input type="checkbox"/> Solar power <input checked="" type="checkbox"/> State energy strategic plans <input type="checkbox"/> Telecommuting <input type="checkbox"/> Thermal ** <input type="checkbox"/> Traffic signals <input type="checkbox"/> Transmission and infrastructure reliability <input type="checkbox"/> Transportation alternatives <input type="checkbox"/> Waste management and recycling <input type="checkbox"/> Water systems <input type="checkbox"/> Wind energy
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5. Estimated Annual Energy Savings : 550,000.00 MBtus

6. Description (executive summary of goals and objectives)* :

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Health & Human Resources

Energy Efficiency in State Buildings: Health and Human Resources**Budget** (Contractual): \$5,000,000**Goals:**

- Total BTU savings estimated at 550,000,000 *
- To create or retain 45 jobs*

Scope: The Energy Efficiency in State Buildings: Health & Human Resources program will support energy efficiency projects identified at W.Va. Department of Health and Human Resources (DHHR) facilities, reducing taxpayers' costs for government operations. DHHR has developed a list of projects that are top candidates for energy efficiency upgrades including long-term care facilities, acute care hospital facilities, acute care psychiatric hospitals and renovation of a public health laboratory. Funds would be used to support energy efficiency projects identified by DHHR. These projects must be competitively bid in accordance with state procurement standards.

PROJECT 1: Pinecrest Hospital

Replace existing boilers with more efficient boilers and replace and improve steam distribution system and steam utilization equipment and controls. DDC control systems will also be installed to maximize system efficiency.

Sq Ft: 407,820

BTU savings: 143,000,000 *

Jobs created/retained: 12 *

PROJECT 2: Mildred Mitchell-Bateman Hospital; William R. Sharpe, Jr. Hospital; Welch Hospital

Replace and extend controls from new renovated areas at each facility:

Mildred Mitchell-Bateman Hospital - Expand scope of new Building 2 control system to provide controls over existing HVAC equipment in Buildings 1, 3 and 4 and replace existing pneumatic controls with electronic DDC controls

William R. Sharpe, Jr. Hospital - Replace original 1992 electronic and pneumatic control equipment with new DDC control systems and equipment to provide more reliable operation, better temperature control and improved control strategies and monitoring

Welch Hospital - Replace pneumatic control equipment with new DDC control systems and equipment to provide more reliable operation, better temperature control, improved control strategies and monitoring

Sq Ft: 517,353

BTU savings: 110,000,000 *

Jobs created/retained: 9 *

PROJECT 3: John Manchin, Sr. Health Care Center; Lakin Hospital; Hopement Hospital; Welch Hospital

Replacement of T-12 lighting fixtures with energy efficient T-8 and LED lighting and upgrade lighting controls with area occupancy sensory switches

Sq Ft: 309,800

BTU savings: 187,000,000 *

DOE F 540.1
(08/05)

**U.S. Department of Energy
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OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Health & Human Resources

Jobs created/retained: 15 *

PROJECT 4: Lakin Hospital; Public Health Hygienic Laboratory; Mildred Mitchell-Batemen Hospital (building 5)

Upgrade to energy efficient windows

Sq ft: 143,612

BTU savings: 110,000,000 *

Jobs created/retained: 9 *

* Source: U.S. EPA Rapid Deployment Energy Efficiency (RDEE) Planning Guide, 2009. p. 17.

7. Program Year Milestones* :

	Milestone	Planned (Number)
1	Year 1 / 1st Quarter: Development of EIO for selection of A&E firms	1
2	Year 1 / 2nd Quarter: Development of scope of work and evaluation of project data	1
3	Year 1 / 3rd Quarter: Design of specifications, scopes of work, phasing and bid documents	1
4	Year 1 / 4th Quarter: Continue design of specifications, scopes of work, phasing and bid documents	1
5	Year 2 / 1st Quarter: Bid evaluations and contract awards	1
6	Year 2 / 2nd Quarter: Contractor start-up and mobilization	1
7	Year 2 / 3rd Quarter: Projects continue	1
8	Year 2 / 4th Quarter: Projects continue	1
9	Year 3 / 1st Quarter: Projects continue	1
10	Year 3 / 2nd Quarter: Projects continue	1
11	Year 3 / 3rd Quarter: Project closeout	1
12	Year 3 / 4th Quarter: Continue with project closeout	1

8. Standard metrics (required)**

JOB METRICS	Planned
Jobs Created	0
Jobs Retained	45
Total Jobs	45

9. Specific metric activity (required)**

SPECIFIC METRICS	Planned
Building Retrofits	
Buildings retrofitted, by sector	
Buildings retrofitted (Public)	8
Square footage retrofitted (Public)	1,378,585

DOE F 540.1
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U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Health & Human Resources

10. User specified metrics (optional)*

METRICS	Planned

11. Program Year Funds by Source*

a. SEP Grant (all funds in the approved budget)	
DOE	\$5,000,000.00
Market Budget Total	\$5,000,000.00
b. Leveraged funds anticipated (outside approved budget)	

DOE F 540.1
(08/05)

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET**

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Higher Education

1. Market (choose one):

<input checked="" type="checkbox"/> Buildings	<input type="checkbox"/> Industry
<input type="checkbox"/> Electric Power and Renewable Energy	<input type="checkbox"/> Policy, Planning and Energy Security
<input type="checkbox"/> Energy Education	<input type="checkbox"/> Transportation

2. State: WV

3. Program Year: 2009

Date Start: 04/20/2009 Date End: 04/30/2012

4. Topics Involved in the Overall Program Market (choose all that apply):

<input type="checkbox"/> Agriculture	<input type="checkbox"/> Federal Energy Management Program	<input checked="" type="checkbox"/> Procurement of efficient products **
<input type="checkbox"/> Alternative Fuels	<input checked="" type="checkbox"/> Federal, state and local facilities	<input type="checkbox"/> Public information
<input type="checkbox"/> Appliance efficiency and standards	<input checked="" type="checkbox"/> Financing energy programs	<input type="checkbox"/> Rating and labeling
<input type="checkbox"/> Bioenergy and biobased products	<input type="checkbox"/> Fuel cells	<input type="checkbox"/> Rebuild America
<input type="checkbox"/> Biomass Power	<input type="checkbox"/> General energy efficiency for industry	<input type="checkbox"/> Residential buildings
<input type="checkbox"/> Building America	<input type="checkbox"/> Geothermal	<input type="checkbox"/> Right turn on red **
<input type="checkbox"/> Carpools, vanpools, and ridesharing **	<input type="checkbox"/> Green power programs	<input type="checkbox"/> Schools
<input type="checkbox"/> Clean Cities	<input type="checkbox"/> Heavy vehicles and trucks	<input type="checkbox"/> Solar power
<input type="checkbox"/> Climate change planning	<input type="checkbox"/> Home energy ratings	<input checked="" type="checkbox"/> State energy strategic plans
<input type="checkbox"/> Combined heat and power	<input type="checkbox"/> Hydrogen	<input type="checkbox"/> Telecommuting
<input type="checkbox"/> Commercial buildings	<input type="checkbox"/> Hydropower	<input type="checkbox"/> Thermal **
<input type="checkbox"/> Curriculum development	<input type="checkbox"/> Industrial processing	<input type="checkbox"/> Traffic signals
<input checked="" type="checkbox"/> Demand reduction	<input type="checkbox"/> Industries of the future	<input type="checkbox"/> Transmission and infrastructure reliability
<input type="checkbox"/> Distributed energy generation	<input type="checkbox"/> Lighting **	<input type="checkbox"/> Transportation alternatives
<input type="checkbox"/> Energy and environment	<input type="checkbox"/> Low-income Weatherization	<input type="checkbox"/> Waste management and recycling
<input type="checkbox"/> Energy building codes	<input type="checkbox"/> Manufacturing	<input type="checkbox"/> Water systems
<input type="checkbox"/> Energy consumption and price statistics	<input type="checkbox"/> Motors and other industrial systems	<input type="checkbox"/> Wind energy
<input type="checkbox"/> Energy emergency planning	<input checked="" type="checkbox"/> Performance contracting	
<input type="checkbox"/> ENERGY STAR	<input type="checkbox"/> Policy and energy legislation	

5. Estimated Annual Energy Savings : 27,872,163.00 MBtus

6. Description (executive summary of goals and objectives)* :

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Higher Education

Energy Efficiency in State Buildings: Higher Education**Budget** (Contractual): \$6,993,598**Goals:**

Total BTU savings estimated at 27,872,162,760
 To create or retain 36 jobs

Scope: The Energy Efficiency in State Buildings: Higher Education program will support energy efficiency projects identified at institutions of higher learning, reducing taxpayers' costs for government operations. Using the expertise of on-staff engineers, the West Virginia Higher Education Policy Commission - which is responsible for the funding support for higher education initiatives - developed a list of 18 projects including HVAC and electrical upgrades that could be implemented quickly using existing contract service providers, in-house staff or yet-to-be awarded contractors. Funds could also be used to pay the initial evaluation costs in energy service company (ESCO) agreements. These agreements must be competitively bid in accordance with state procurement standards. Energy performance contracts also may augment retrofitting activities to maximize the utilization of funds and a further reduction of energy usage.

PROJECT 1: Bluefield State College

Building: Basic Science
 HVAC upgrade
 Sq. ft.: 65,514
 BTU savings: 834,518,160
 Jobs created/retained: 2

PROJECT 2: Concord University

Building: Educational & general buildings
 Renovations to HVAC, electrical & plumbing
 Sq. ft: 81,500
 BTU savings: 1,288,320,706
 Jobs created/retained: 4

PROJECT 3: Community & Technical College/West Virginia University Institute of Technology

Building: Davis Hall
 HVAC improvements, replace Andover controls and MUA heat wheel
 Sq. ft: 77,288
 BTU Savings: 4,721,451,300
 Jobs created/retained: 2

PROJECT 4: Marshall University

Building: Corbly Hall
 HVAC (chiller replacement)
 Sq. Ft.: 102,380
 BTU Savings: 1,177,933,152

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(08/05)

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
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OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Higher Education

Jobs created/retained: 3

PROJECT 5: Shepherd University

Building: Frank Center

Classroom HVAC replacement

Sq Ft: 46,249

BTU Savings: 1,256,767,142

Jobs created/retained: 2

PROJECT 6: West Virginia Northern Community College

Building: New Martinsville campus

Roof & remote terminal unit replacement

Sq ft: 33,224

BTU Savings: 222,837,243

Jobs created/retained: 1

PROJECT 7: West Virginia State University

Building: Hill Hall faculty office building

HVAC upgrade

Sq Ft: 28,832

BTU Savings: 707,927,040

Jobs created/retained: 1

PROJECT 8: West Virginia State University

Building: Hamblin Hall

Replace boilers

Sq Ft: 55,904

BTU Savings: 1,252,800,000

Jobs created/retained: 1

PROJECT 9: West Virginia State University

Building: Ferrell Hall

Replace chillers

Sq Ft: 68,005

BTU Savings: 986,919,120

Jobs created/retained: 1

PROJECT 10: West Virginia University Institute of Technology

Building: College of Business & Economics and Vining Library

Replace Andover HVAC controls

Sq Ft: 91,217

BTU Savings: 1,169,923,055

Jobs created/retained: 2

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Higher Education

PROJECT 11: West Virginia Northern Community College

Building: B & O Building

Boiler replacement

Sq Ft: 76,858

BTU Savings: 833,533,056

Jobs created/retained: 2

PROJECT 12: West Virginia University

Building: Chemistry Research Laboratory

Convert fans to common system

Sq Ft: 69,522

BTU Savings: 4,904,483,220

Jobs created/retained: 3

PROJECT 13: West Virginia Northern Community College

Building: Weirton campus

Remote terminal units

Sq Ft: 43,666

BTU Savings: 368,600,736

Jobs created/retained: 1

PROJECT 14: Southern WV Community & Technical College

Building: Wyoming campus

HVAC renovation

Sq Ft: 25,182

BTU Savings: 217,226,275

Jobs created/retained: 1

PROJECT 15: Glenville State College

Building: Glenville campus

Upgrade HVAC systems

Sq Ft: 206,915

BTU Savings: 6,022,257,317

Jobs created/retained: 3

PROJECT 16: WVU at Parkersburg

Building: Caperton Center

Redesign HVAC tech area

Sq Ft: 55,941

BTU Savings: 690,274,256

Jobs created/retained: 2

DOE F 540.1
(08/05)

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET**

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Higher Education

PROJECT 17: Potomac State College

Building: Academic Building
Boiler replacement
Sq Ft: 26,334
BTU Savings: 230,245,535
Jobs created/retained: 2

PROJECT 18: Southern WV Community & Technical College

Building: Williamson campus
HVAC renovation
Sq Ft: 67,093
BTU Savings: 986,145,447
Jobs created/retained: 3

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Higher Education

7. Program Year Milestones* :

	Milestone	Planned (Number)
1	Year 1 / 1st Quarter: Project 1 - Bidding opens; contract/P.O. awarded	1
2	Year 1 / 1st Quarter: Project 2 - Bidding opens; contract/P.O. awarded	1
3	Year 1 / 1st Quarter: Project 3 - Bidding opens; contract/P.O. awarded	1
4	Year 1 / 1st Quarter: Project 4 - Bidding opens; contract/P.O. awarded	1
5	Year 1 / 1st Quarter: Project 5 - Bidding opens; contract/P.O. awarded; project completed	1
6	Year 1 / 1st Quarter: Project 6 - Bidding opens; contract/P.O. awarded	1
7	Year 1 / 1st Quarter: Project 7 - Bidding opens; contract/P.O. awarded	1
8	Year 1 / 1st Quarter: Project 8 - Bidding opens; contract/P.O. awarded	1
9	Year 1 / 1st Quarter: Project 9 - Bidding opens; contract/P.O. awarded	1
10	Year 1 / 1st Quarter: Project 10 - Bidding opens; contract/P.O. awarded	1
11	Year 1 / 1st Quarter: Project 11 - Bidding opens; contract/P.O. awarded	1
12	Year 1 / 1st Quarter: Project 12 - Bidding opens	1
13	Year 1 / 1st Quarter: Project 13 - Bidding opens; contract/P.O. awarded	1
14	Year 1 / 1st Quarter: Project 14 - Bidding opens; contract/P.O. awarded	1
15	Year 1 / 1st Quarter: Project 15 - Bidding opens; contract/P.O. awarded	1
16	Year 1 / 1st Quarter: Project 16 - Bidding opens; contract/P.O. awarded	1
17	Year 1 / 1st Quarter: Project 17 - Bidding opens; contract/P.O. awarded	1
18	Year 1 / 1st Quarter: Project 18 - Bidding opens; contract/P.O. awarded	1
19	Year 1 / 2nd Quarter: Project 1 continues	1
20	Year 1 / 2nd Quarter: Project 2 continues	1
21	Year 1 / 2nd Quarter: Project 3 continues	1
22	Year 1 / 2nd Quarter: Project 4 continues	1
23	Year 1 / 2nd Quarter: Project 6 completed	1
24	Year 1 / 2nd Quarter: Project 7 completed	1
25	Year 1 / 2nd Quarter: Project 8 completed	1
26	Year 1 / 2nd Quarter: Project 9 completed	1
27	Year 1 / 2nd Quarter: Project 10 continues	1
28	Year 1 / 2nd Quarter: Project 11 completed	1
29	Year 1 / 2nd Quarter: Project 13 completed	1
30	Year 1 / 2nd Quarter: Project 14 completed	1
31	Year 1 / 2nd Quarter: Project 15 continues	1
32	Year 1 / 2nd Quarter: Project 16 continues	1
33	Year 1 / 2nd Quarter: Project 17 continues	1
34	Year 1 / 2nd Quarter: Project 18 completed	1
35	Year 1 / 3rd Quarter: Project 1 completed	1
36	Year 1 / 3rd Quarter: Project 2 continues	1

DOE F 540.1
(08/05)

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET**

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: Higher Education

37	Year 1 / 3rd Quarter: Project 3 continues	1
38	Year 1 / 3rd Quarter: Project 4 completed	1
39	Year 1 / 3rd Quarter: Project 10 continues	1
40	Year 1 / 3rd Quarter: Project 12 - contract/P.O. awarded	1
41	Year 1 / 3rd Quarter: Project 15 continues	1
42	Year 1 / 3rd Quarter: Project 16 continues	1
43	Year 1 / 3rd Quarter: Project 17 completed	1
44	Year 1 / 4th Quarter: Project 2 completed	1
45	Year 1 / 4th Quarter: Project 3 completed	1
46	Year 1 / 4th Quarter: Project 10 completed	1
47	Year 1 / 4th Quarter: Project 12 continues	1
48	Year 1 / 4th Quarter: Project 15 continues	1
49	Year 1 / 4th Quarter: Project 16 completed	1
50	Year 2 / 1st Quarter: Project 12 completed	1
51	Year 2 / 1st Quarter: Project 15 continues	1
52	Year 2 / 2nd Quarter: Project 15 completed	1

8. Standard metrics (required)**

JOB METRICS	Planned
Jobs Created	0
Jobs Retained	36
Total Jobs	36

9. Specific metric activity (required)**

SPECIFIC METRICS	Planned
Building Retrofits	
Buildings retrofitted, by sector	
Buildings retrofitted (Public)	18
Square footage retrofitted (Public)	1,221,624

10. User specified metrics (optional)*

METRICS	Planned

11. Program Year Funds by Source*

a. SEP Grant (all funds in the approved budget)	
DOE	\$6,993,598.00
Market Budget Total	\$6,993,598.00
b. Leveraged funds anticipated (outside approved budget)	

DOE F 540.1
(08/05)

U.S. Department of Energy STATE ENERGY PROGRAM (SEP) NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: K-12 Education

1. Market (choose one):

<input checked="" type="checkbox"/> Buildings	<input type="checkbox"/> Industry
<input type="checkbox"/> Electric Power and Renewable Energy	<input type="checkbox"/> Policy, Planning and Energy Security
<input type="checkbox"/> Energy Education	<input type="checkbox"/> Transportation

2. State: WV

3. Program Year: 2009

Date Start: 04/20/2009 Date End: 04/30/2012

4. Topics Involved in the Overall Program Market (choose all that apply):

<input type="checkbox"/> Agriculture	<input type="checkbox"/> Federal Energy Management Program	<input checked="" type="checkbox"/> Procurement of efficient products **
<input type="checkbox"/> Alternative Fuels	<input checked="" type="checkbox"/> Federal, state and local facilities	<input type="checkbox"/> Public information
<input type="checkbox"/> Appliance efficiency and standards	<input checked="" type="checkbox"/> Financing energy programs	<input type="checkbox"/> Rating and labeling
<input type="checkbox"/> Bioenergy and biobased products	<input type="checkbox"/> Fuel cells	<input type="checkbox"/> Rebuild America
<input type="checkbox"/> Biomass Power	<input type="checkbox"/> General energy efficiency for industry	<input type="checkbox"/> Residential buildings
<input type="checkbox"/> Building America	<input checked="" type="checkbox"/> Geothermal	<input type="checkbox"/> Right turn on red **
<input type="checkbox"/> Carpools, vanpools, and ridesharing **	<input type="checkbox"/> Green power programs	<input checked="" type="checkbox"/> Schools
<input type="checkbox"/> Clean Cities	<input type="checkbox"/> Heavy vehicles and trucks	<input type="checkbox"/> Solar power
<input type="checkbox"/> Climate change planning	<input type="checkbox"/> Home energy ratings	<input checked="" type="checkbox"/> State energy strategic plans
<input type="checkbox"/> Combined heat and power	<input type="checkbox"/> Hydrogen	<input type="checkbox"/> Telecommuting
<input type="checkbox"/> Commercial buildings	<input type="checkbox"/> Hydropower	<input type="checkbox"/> Thermal **
<input type="checkbox"/> Curriculum development	<input type="checkbox"/> Industrial processing	<input type="checkbox"/> Traffic signals
<input checked="" type="checkbox"/> Demand reduction	<input type="checkbox"/> Industries of the future	<input type="checkbox"/> Transmission and infrastructure reliability
<input type="checkbox"/> Distributed energy generation	<input type="checkbox"/> Lighting **	<input type="checkbox"/> Transportation alternatives
<input type="checkbox"/> Energy and environment	<input type="checkbox"/> Low-income Weatherization	<input type="checkbox"/> Waste management and recycling
<input type="checkbox"/> Energy building codes	<input type="checkbox"/> Manufacturing	<input type="checkbox"/> Water systems
<input type="checkbox"/> Energy consumption and price statistics	<input type="checkbox"/> Motors and other industrial systems	<input type="checkbox"/> Wind energy
<input type="checkbox"/> Energy emergency planning	<input type="checkbox"/> Performance contracting	
<input type="checkbox"/> ENERGY STAR	<input type="checkbox"/> Policy and energy legislation	

5. Estimated Annual Energy Savings : 931,343.00 MBtus

6. Description (executive summary of goals and objectives)* :

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: K-12 Education

Energy Efficiency in State Buildings: K-12 Education**Budget** (Contractual): \$3,317,859**Goals:**

- HVAC replacement or renovations, lighting and window replacement and installation of new sprinklers and ceilings at selected K-12 schools
- One 165 KW geothermal system at a new Berkley County elementary school
- Total BTU savings estimated at 931,342,640
- To create or retain 30 jobs *
- To enhance the sustainability and learning environment of W.Va. public schools
- To improve indoor air quality
- To increase teacher retention rates, standardized test scores and attendance

Scope: The Energy Efficiency in State Buildings: K-12 Education program will replace or renovate inefficient HVAC systems, replace lighting and windows and install new sprinklers and ceilings at four schools selected with input from the WV School Building Authority. County school systems are the largest and most visible public service institutions in many communities, serving 270,000 students in West Virginia. Energy efficiency schools are examples of energy resource stewardship, serving children in a healthier, more cost-effective and more environmentally friendly learning atmosphere.

The Energy Efficiency in State Buildings: K-12 Education program also will support the installation of a geothermal HVAC system at Spring Mills Primary, a new, 59,302-square-foot LEED K-2 school under development in Berkeley County. For the purpose of this application, a cost of \$500,000 is assumed for this unit which will have an EER greater than 14.3 and a COP greater than 3.1. The geothermal heat pump system will use 20-25 percent less energy than a conventional water source heat pump system (boiler and fluid cooler).

PROJECT 1: Fairmont Senior High School (Marion County)

Lighting, window, sprinkler and ceiling replacement

Sq Ft: 95,494

BTU Savings: 800,000,000

Jobs Created/Retained: 19

PROJECT 2: Berkeley Springs High School (Morgan County)

HVAC and lighting upgrades

Sq Ft: 16,492

BTU Savings: 34,250,480 *

Jobs Created/Retained: 3 *

PROJECT 3: Frankfort Middle School & Keyser Primary/Middle School (Mineral County)

Cooling tower replacement

Sq Ft: 87,200 (Frankfort Middle School)

Sq Ft: 98,850 (Keyser Primary/Middle School)

BTU Savings: 42,092,160 *

DOE F 540.1
(08/05)

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET**

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: K-12 Education

Jobs Created/Retained: 3 *

PROJECT 4: Spring Mills Primary (Berkeley County)
Sq Ft: 59,302
BTU Savings: N/A
Jobs Created/Retained: 5 *

* Source: US EPA Rapid Deployment Energy Efficiency (RDEE) Planning Guide, 2009, p. 17

7. Program Year Milestones* :

	Milestone	Planned (Number)
1	Year 1 / 1st Quarter: Project 1 begins	1
2	Year 1 / 1st Quarter: Project 2 begins	1
3	Year 1 / 2nd Quarter: Project 1 continues	1
4	Year 1 / 2nd Quarter: Project 2 continues	1
5	Year 1 / 3rd Quarter: Project 1 continues	1
6	Year 1 / 3rd Quarter: Project 2 continues	1
7	Year 1 / 4th Quarter: Project 1 completed	1
8	Year 1 / 4th Quarter: Project 2 completed	1
9	Year 2 / 1st Quarter: Project 3 begins	1
10	Year 2 / 2nd Quarter: Project 3 continues	1
11	Year 2 / 3rd Quarter: Project 3 continues	1
12	Year 2 / 4th Quarter: Project 3 completed	1
13	Year 3 / 1st Quarter: Project 4 begins	1
14	Year 3 / 2nd Quarter: Project 4 continues	1
15	Year 3 / 3rd Quarter: Project 4 continues	1
16	Year 3 / 4th Quarter: Project 4 completed	1

8. Standard metrics (required)**

JOB METRICS	Planned
Jobs Created	0
Jobs Retained	30
Total Jobs	30

9. Specific metric activity (required)**

DOE F 540.1
(08/05)

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET**

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: K-12 Education

SPECIFIC METRICS	Planned
Building Retrofits	
Buildings retrofitted, by sector	
Buildings retrofitted (Public)	5
Square footage retrofitted (Public)	357,338

10. User specified metrics (optional)*

METRICS	Planned

11. Program Year Funds by Source*

a. SEP Grant (all funds in the approved budget)	
DOE	\$3,317,859.00
Market Budget Total	\$3,317,859.00
b. Leveraged funds anticipated (outside approved budget)	

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET**

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: WV Army National Guard

1. Market (choose one):

<input checked="" type="checkbox"/> Buildings	<input type="checkbox"/> Industry
<input type="checkbox"/> Electric Power and Renewable Energy	<input type="checkbox"/> Policy, Planning and Energy Security
<input type="checkbox"/> Energy Education	<input type="checkbox"/> Transportation

2. State: WV

3. Program Year: 2009

Date Start: 04/20/2009 Date End: 04/30/2012

4. Topics Involved in the Overall Program Market (choose all that apply):

<input type="checkbox"/> Agriculture	<input type="checkbox"/> Federal Energy Management Program	<input checked="" type="checkbox"/> Procurement of efficient products **
<input type="checkbox"/> Alternative Fuels	<input checked="" type="checkbox"/> Federal, state and local facilities	<input type="checkbox"/> Public information
<input type="checkbox"/> Appliance efficiency and standards	<input checked="" type="checkbox"/> Financing energy programs	<input type="checkbox"/> Rating and labeling
<input type="checkbox"/> Bioenergy and biobased products	<input type="checkbox"/> Fuel cells	<input type="checkbox"/> Rebuild America
<input type="checkbox"/> Biomass Power	<input type="checkbox"/> General energy efficiency for industry	<input type="checkbox"/> Residential buildings
<input type="checkbox"/> Building America	<input type="checkbox"/> Geothermal	<input type="checkbox"/> Right turn on red **
<input type="checkbox"/> Carpools, vanpools, and ridesharing **	<input type="checkbox"/> Green power programs	<input type="checkbox"/> Schools
<input type="checkbox"/> Clean Cities	<input type="checkbox"/> Heavy vehicles and trucks	<input type="checkbox"/> Solar power
<input type="checkbox"/> Climate change planning	<input type="checkbox"/> Home energy ratings	<input checked="" type="checkbox"/> State energy strategic plans
<input type="checkbox"/> Combined heat and power	<input type="checkbox"/> Hydrogen	<input type="checkbox"/> Telecommuting
<input type="checkbox"/> Commercial buildings	<input type="checkbox"/> Hydropower	<input type="checkbox"/> Thermal **
<input type="checkbox"/> Curriculum development	<input type="checkbox"/> Industrial processing	<input type="checkbox"/> Traffic signals
<input checked="" type="checkbox"/> Demand reduction	<input type="checkbox"/> Industries of the future	<input type="checkbox"/> Transmission and infrastructure reliability
<input type="checkbox"/> Distributed energy generation	<input checked="" type="checkbox"/> Lighting **	<input type="checkbox"/> Transportation alternatives
<input type="checkbox"/> Energy and environment	<input type="checkbox"/> Low-income Weatherization	<input type="checkbox"/> Waste management and recycling
<input type="checkbox"/> Energy building codes	<input type="checkbox"/> Manufacturing	<input type="checkbox"/> Water systems
<input type="checkbox"/> Energy consumption and price statistics	<input type="checkbox"/> Motors and other industrial systems	<input type="checkbox"/> Wind energy
<input type="checkbox"/> Energy emergency planning	<input type="checkbox"/> Performance contracting	
<input type="checkbox"/> ENERGY STAR	<input type="checkbox"/> Policy and energy legislation	

5. Estimated Annual Energy Savings : 128,318.00 MBtus

6. Description (executive summary of goals and objectives)* :

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: WV Army National Guard

Energy Efficiency in State Buildings: W.Va. Army National Guard**Budget** (Contractual): \$1,166,525**Goals:**

- Total BTU savings estimated at 128,317,750 *
- To create or retain 12 jobs *

Scope: The Energy Efficiency in State Buildings: W.Va. Army National Guard program will support lighting system replacements at state Army National Guard armories, reducing taxpayers' costs for government operations. Using the expertise of its energy manager, the West Virginia Army National Guard - which is responsible for the operation and maintenance of these buildings - developed a list of lighting projects at 11 facilities that could be implemented quickly using existing contract service providers, in-house staff or yet-to-be awarded contractors.

PROJECT 1: Blizzard Armory, Parkersburg

Replace incandescent and fluorescent lighting

Sq Ft: 28,553

BTU Savings: 15,704,150

Jobs created/retained: 1

PROJECT 2: Bluefield (Brushfork) Armory, Bluefield

Replace mercury vapor and fluorescent lighting with energy-efficient HID and fluorescent lighting

Sq Ft: 46,167

BTU Savings: 25,391,850

Jobs created/retained: 2

PROJECT 3: Charleston Armory, Charleston

Replace all lighting with T5 fluorescent lighting

Sq Ft: 57,120

BTU Savings: 3,918,750

Jobs created/retained: 1

PROJECT 4: Clarksburg Armory, Clarksburg

Replace all lighting with energy-efficient HID and fluorescent lighting

Sq Ft: 11,426

BTU Savings: 6,284,300

Jobs created/retained: 1

PROJECT 5: Dunbar Armory, Dunbar

Replace all lighting with energy-efficient HID and fluorescent lighting

Sq Ft: 16,743

BTU Savings: 9,208,650

Jobs created/retained: 1

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: WV Army National Guard

PROJECT 6: Huntington-Barbour Armory, Huntington

Replace all lighting with energy-efficient HID high-bay and fluorescent lighting.

Sq Ft: 20,536

BTU Savings: 11,294,800

Jobs created/retained: 1

PROJECT 7: Keyser Armory, Keyser

Replace all fluorescent lighting with T5 fluorescent lighting

Sq Ft: 15,364

BTU Savings: 8,450,200

Jobs created/retained: 1

PROJECT 8: Martinsburg Armory, Martinsburg

Replace all lighting with energy-efficient HID and fluorescent lighting

Sq Ft: 14,627

BTU Savings: 8,044,850

Jobs created/retained: 1

PROJECT 9: Moundsville Armory, Moundsville

Replace all lighting with energy-efficient HID and fluorescent lighting

Sq Ft: 21,908

BTU Savings: 12,049,400

Jobs created/retained: 1

PROJECT 10: Pt. Pleasant Armory, Pt. Pleasant

Replace all lighting with energy-efficient HID high-bay and fluorescent lighting

Sq Ft: 28,785

BTU Savings: 15,831,750

Jobs created/retained: 1

PROJECT 11: Weston Armory, Weston

Replace all lighting with energy-efficient HID and fluorescent lighting

Sq Ft: 22,071

BTU Savings: 12,139,050

Jobs created/retained: 1

* Source: US EPA Rapid Deployment Energy Efficiency (RDEE) Planning Guide, 2009, p. 17.

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: WV Army National Guard

7. Program Year Milestones* :

	Milestone	Planned (Number)
1	Year 1 / 1st Quarter: Project 1 - Lighting project begins	1
2	Year 1 / 1st Quarter: Project 2 - Lighting project begins	1
3	Year 1 / 1st Quarter: Project 3 - Lighting project begins	1
4	Year 1 / 1st Quarter: Project 4 - Lighting project begins	1
5	Year 1 / 2nd Quarter: Project 1 - Lighting project continues	1
6	Year 1 / 2nd Quarter: Project 2 - Lighting project continues	1
7	Year 1 / 2nd Quarter: Project 3 - Lighting project continues	1
8	Year 1 / 2nd Quarter: Project 4 - Lighting project continues	1
9	Year 1 / 3rd Quarter: Project 1 - Lighting project continues	1
10	Year 1 / 3rd Quarter: Project 2 - Lighting project continues	1
11	Year 1 / 3rd Quarter: Project 3 - Lighting project continues	1
12	Year 1 / 3rd Quarter: Project 4 - Lighting project continues	1
13	Year 1 / 4th Quarter: Project 1 - Lighting project completed	1
14	Year 1 / 4th Quarter: Project 2 - Lighting project completed	1
15	Year 1 / 4th Quarter: Project 3 - Lighting project completed	1
16	Year 1 / 4th Quarter: Project 4 - Lighting project completed	1
17	Year 2 / 1st Quarter: Project 5 - Lighting project begins	1
18	Year 2 / 1st Quarter: Project 6 - Lighting project begins	1
19	Year 2 / 1st Quarter: Project 7 - Lighting project begins	1
20	Year 2 / 1st Quarter: Project 8 - Lighting project begins	1
21	Year 2 / 2nd Quarter: Project 5 - Lighting project continues	1
22	Year 2 / 2nd Quarter: Project 6 - Lighting project continues	1
23	Year 2 / 2nd Quarter: Project 7 - Lighting project continues	1
24	Year 2 / 2nd Quarter: Project 8 - Lighting project continues	1
25	Year 2 / 3rd Quarter: Project 5 - Lighting project continues	1
26	Year 2 / 3rd Quarter: Project 6 - Lighting project continues	1
27	Year 2 / 3rd Quarter: Project 7 - Lighting project continues	1
28	Year 2 / 3rd Quarter: Project 8 - Lighting project continues	1
29	Year 2 / 4th Quarter: Project 5 - Lighting project completed	1
30	Year 2 / 4th Quarter: Project 6 - Lighting project completed	1
31	Year 2 / 4th Quarter: Project 7 - Lighting project completed	1
32	Year 2 / 4th Quarter: Project 8 - Lighting project completed	1
33	Year 3 / 1st Quarter: Project 9 - Lighting project begins	1
34	Year 3 / 1st Quarter: Project 10 - Lighting project begins	1
35	Year 3 / 1st Quarter: Project 11 - Lighting project begins	1
36	Year 3 / 2nd Quarter: Project 9 - Lighting project continues	1

DOE F 540.1
(08/05)

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET**

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Energy Efficiency in State Buildings: WV Army National Guard

37	Year 3 / 2nd Quarter: Project 10 - Lighting project continues	1
38	Year 3 / 2nd Quarter: Project 11 - Lighting project continues	1
39	Year 3 / 3rd Quarter: Project 9 - Lighting project continues	1
40	Year 3 / 3rd Quarter: Project 10 - Lighting project continues	1
41	Year 3 / 3rd Quarter: Project 11 - Lighting project continues	1
42	Year 3 / 4th Quarter: Project 9 - Lighting project completed	1
43	Year 3 / 4th Quarter: Project 10 - Lighting project completed	1
44	Year 3 / 4th Quarter Project 11 - Lighting project completed	1

8. Standard metrics (required)**

JOB METRICS	Planned
Jobs Created	0
Jobs Retained	12
Total Jobs	12

9. Specific metric activity (required)**

SPECIFIC METRICS	Planned
Building Retrofits	
Buildings retrofitted, by sector	
Buildings retrofitted (Public)	11
Square footage retrofitted (Public)	283,300

10. User specified metrics (optional)*

METRICS	Planned

11. Program Year Funds by Source*

a. SEP Grant (all funds in the approved budget)	
DOE	\$1,166,525.00
Market Budget Total	\$1,166,525.00
b. Leveraged funds anticipated (outside approved budget)	

DOE F 540.1
(08/05)

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET**

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Revolving Loan Program: Energy Efficiency for Businesses

1. Market (choose one):

- | | |
|--|---|
| <input type="checkbox"/> Buildings | <input checked="" type="checkbox"/> Industry |
| <input type="checkbox"/> Electric Power and Renewable Energy | <input type="checkbox"/> Policy, Planning and Energy Security |
| <input type="checkbox"/> Energy Education | <input type="checkbox"/> Transportation |

2. State: WV

3. Program Year: 2009

Date Start: 04/20/2009 Date End: 04/30/2012

4. Topics Involved in the Overall Program Market (choose all that apply):

- | | | |
|--|--|--|
| <input type="checkbox"/> Agriculture | <input type="checkbox"/> Federal Energy Management Program | <input type="checkbox"/> Procurement of efficient products ** |
| <input type="checkbox"/> Alternative Fuels | <input type="checkbox"/> Federal, state and local facilities | <input type="checkbox"/> Public information |
| <input type="checkbox"/> Appliance efficiency and standards | <input checked="" type="checkbox"/> Financing energy programs | <input type="checkbox"/> Rating and labeling |
| <input type="checkbox"/> Bioenergy and biobased products | <input type="checkbox"/> Fuel cells | <input type="checkbox"/> Rebuild America |
| <input type="checkbox"/> Biomass Power | <input checked="" type="checkbox"/> General energy efficiency for industry | <input type="checkbox"/> Residential buildings |
| <input type="checkbox"/> Building America | <input type="checkbox"/> Geothermal | <input type="checkbox"/> Right turn on red ** |
| <input type="checkbox"/> Carpools, vanpools, and ridesharing ** | <input type="checkbox"/> Green power programs | <input type="checkbox"/> Schools |
| <input type="checkbox"/> Clean Cities | <input type="checkbox"/> Heavy vehicles and trucks | <input type="checkbox"/> Solar power |
| <input type="checkbox"/> Climate change planning | <input type="checkbox"/> Home energy ratings | <input checked="" type="checkbox"/> State energy strategic plans |
| <input type="checkbox"/> Combined heat and power | <input type="checkbox"/> Hydrogen | <input type="checkbox"/> Telecommuting |
| <input checked="" type="checkbox"/> Commercial buildings | <input type="checkbox"/> Hydropower | <input type="checkbox"/> Thermal ** |
| <input type="checkbox"/> Curriculum development | <input checked="" type="checkbox"/> Industrial processing | <input type="checkbox"/> Traffic signals |
| <input checked="" type="checkbox"/> Demand reduction | <input checked="" type="checkbox"/> Industries of the future | <input type="checkbox"/> Transmission and infrastructure reliability |
| <input type="checkbox"/> Distributed energy generation | <input type="checkbox"/> Lighting ** | <input type="checkbox"/> Transportation alternatives |
| <input type="checkbox"/> Energy and environment | <input type="checkbox"/> Low-income Weatherization | <input type="checkbox"/> Waste management and recycling |
| <input type="checkbox"/> Energy building codes | <input checked="" type="checkbox"/> Manufacturing | <input type="checkbox"/> Water systems |
| <input type="checkbox"/> Energy consumption and price statistics | <input type="checkbox"/> Motors and other industrial systems | <input type="checkbox"/> Wind energy |
| <input type="checkbox"/> Energy emergency planning | <input type="checkbox"/> Performance contracting | |
| <input type="checkbox"/> ENERGY STAR | <input type="checkbox"/> Policy and energy legislation | |

5. Estimated Annual Energy Savings : 0.00 MBtus

6. Description (executive summary of goals and objectives)* :

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Revolving Loan Program: Energy Efficiency for Businesses

Revolving Loan Program: Energy Efficiency for Businesses**Budget** (Contractual): \$2,750,000,000**Goals:**

- To provide a funding mechanism for the state's industries to implement energy efficiency measures resulting from energy assessments
- To create 25 jobs¹

1 Source: U.S. EPA Rapid Deployment Energy Efficiency (RDEE) Planning Guide, 2009, p.17
(http://www.epa.gov/cleanenergy/documents/rdee_planning_guide.pdf)

Scope: The Revolving Loan Program: Energy Efficiency for Businesses program will provide a business-related revolving loan fund for the implementation of energy efficiency measures by West Virginia businesses. The fund will support energy efficiency improvements in industrial processes, energy management and other technology that improves energy and environmental performances. Examples of projects to be supported include purchase of process equipment capitalizing on combined heat and power opportunities; waste heat recovery; fuel switching; and energy efficient pumps, motors and air systems. As discussed below, any efficiency measure must be recommended through an industrial assessment conducted through West Virginia University's Industrial Assessment Center.

This activity will be administered by the West Virginia Economic Development Authority (WVEDA). This entity is the state lending agency supporting business recruitment and modernization. WVEDA will incur and be reimbursed for legal expenses associated with the development of promissory and security agreements used in this program. Additional administration costs will include software for loan tracking. Staff time for application review, processing, credit analysis, due diligence, funds dispersed and loan closing costs will be charged as appropriate to this activity. Interest incurred will be used to offset these costs. Costs for setting up the program will come out of the initial funding. These costs will be less than \$10,000.

The loans will be offered at 4% interest with up to seven-year terms. Loans will be marketed during the three-year budget period for the SEP stimulus funding. Funds remaining in the account after the three-year program period will be returned to the Division of Energy. The principle of loan still in service will be sent back to the Division of Energy at the conclusion of the loan. Individual loans will be capped at \$400,000.

This revolving loan program will be supported by an industrial assessment activity contracted to West Virginia University through the Industries of the Future - West Virginia (IOF-WV) Program. Items qualifying for a loan must be addressed within the assessment. An industrial assessment through IOF-WV will be required for loan processing. The assessment must analyze the energy and environmental savings for the specific energy efficiency improvements being advanced for these monies. Payback of 10 years or less would qualify the energy efficiency opportunity for revolving loan funding.

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Revolving Loan Program: Energy Efficiency for Businesses

7. Program Year Milestones* :

	Milestone	Planned (Number)
1	Year 1 / 1st Quarter: Loans marketed	1
2	Year 1 / 1st Quarter: Energy assessments initiated	1
3	Year 1 / 2nd Quarter: Projects selected	1
4	Year 1 / 2nd Quarter: Energy efficiency measures implemented	1
5	Year 1 / 3rd Quarter: Energy efficiency measures implemented	1
6	Year 1 / 4th Quarter: Projects completed	1
7	Year 2 / 1st Quarter: Loans marketed	1
8	Year 2 / 1st Quarter: Energy assessments initiated	1
9	Year 2 / 2nd Quarter: Projects selected	1
10	Year 2 / 2nd Quarter: Energy efficiency measures implemented	1
11	Year 2 / 3rd Quarter: Energy efficiency measures implemented	1
12	Year 2 / 4th Quarter: Projects completed	1
13	Year 3 / 1st Quarter: Loans Marketed	1
14	Year 3 / 1st Quarter: Energy assessments initiated	1
15	Year 3 / 2nd Quarter: Projects selected	1
16	Year 3 / 2nd Quarter: Energy efficiency measures implemented	1
17	Year 3 / 3rd Quarter: Energy efficiency measures implemented	1
18	Year 3 / 4th Quarter: Projects completed	1

8. Standard metrics (required)**

JOB METRICS	Planned
Jobs Created	0
Jobs Retained	25
Total Jobs	25

9. Specific metric activity (required)**

SPECIFIC METRICS	Planned
Loans and Grants	
Loans given	
Number of loans	6
Monetary value of loans	2,750,000

10. User specified metrics (optional)*

METRICS	Planned

DOE F 540.1
(08/05)

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET**

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: Revolving Loan Program: Energy Efficiency for Businesses

11. Program Year Funds by Source*

a. SEP Grant (all funds in the approved budget)	
DOE	\$2,750,000.00
Market Budget Total	\$2,750,000.00
b. Leveraged funds anticipated (outside approved budget)	

DOE F 540.1
(08/05)

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET**

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: West Virginia Green-collar Jobs Training Program

1. Market (choose one):

- | | |
|--|---|
| <input type="checkbox"/> Buildings | <input type="checkbox"/> Industry |
| <input type="checkbox"/> Electric Power and Renewable Energy | <input type="checkbox"/> Policy, Planning and Energy Security |
| <input checked="" type="checkbox"/> Energy Education | <input type="checkbox"/> Transportation |

2. State: WV

3. Program Year: 2009

Date Start: 04/20/2009 Date End: 04/30/2012

4. Topics Involved in the Overall Program Market (choose all that apply):

- | | | |
|--|---|--|
| <input type="checkbox"/> Agriculture | <input type="checkbox"/> Federal Energy Management Program | <input type="checkbox"/> Procurement of efficient products ** |
| <input type="checkbox"/> Alternative Fuels | <input type="checkbox"/> Federal, state and local facilities | <input type="checkbox"/> Public information |
| <input type="checkbox"/> Appliance efficiency and standards | <input checked="" type="checkbox"/> Financing energy programs | <input type="checkbox"/> Rating and labeling |
| <input type="checkbox"/> Bioenergy and biobased products | <input type="checkbox"/> Fuel cells | <input type="checkbox"/> Rebuild America |
| <input type="checkbox"/> Biomass Power | <input type="checkbox"/> General energy efficiency for industry | <input checked="" type="checkbox"/> Residential buildings |
| <input type="checkbox"/> Building America | <input type="checkbox"/> Geothermal | <input type="checkbox"/> Right turn on red ** |
| <input type="checkbox"/> Carpools, vanpools, and ridesharing ** | <input checked="" type="checkbox"/> Green power programs | <input type="checkbox"/> Schools |
| <input type="checkbox"/> Clean Cities | <input type="checkbox"/> Heavy vehicles and trucks | <input checked="" type="checkbox"/> Solar power |
| <input type="checkbox"/> Climate change planning | <input checked="" type="checkbox"/> Home energy ratings | <input type="checkbox"/> State energy strategic plans |
| <input type="checkbox"/> Combined heat and power | <input type="checkbox"/> Hydrogen | <input type="checkbox"/> Telecommuting |
| <input checked="" type="checkbox"/> Commercial buildings | <input type="checkbox"/> Hydropower | <input checked="" type="checkbox"/> Thermal ** |
| <input checked="" type="checkbox"/> Curriculum development | <input type="checkbox"/> Industrial processing | <input type="checkbox"/> Traffic signals |
| <input type="checkbox"/> Demand reduction | <input type="checkbox"/> Industries of the future | <input type="checkbox"/> Transmission and infrastructure reliability |
| <input type="checkbox"/> Distributed energy generation | <input type="checkbox"/> Lighting ** | <input type="checkbox"/> Transportation alternatives |
| <input checked="" type="checkbox"/> Energy and environment | <input type="checkbox"/> Low-income Weatherization | <input type="checkbox"/> Waste management and recycling |
| <input checked="" type="checkbox"/> Energy building codes | <input type="checkbox"/> Manufacturing | <input type="checkbox"/> Water systems |
| <input type="checkbox"/> Energy consumption and price statistics | <input type="checkbox"/> Motors and other industrial systems | <input checked="" type="checkbox"/> Wind energy |
| <input type="checkbox"/> Energy emergency planning | <input type="checkbox"/> Performance contracting | |
| <input type="checkbox"/> ENERGY STAR | <input type="checkbox"/> Policy and energy legislation | |

5. Estimated Annual Energy Savings : 0.00 MBtus

6. Description (executive summary of goals and objectives)* :

**U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET**

(Grant Number: EE00113)

Market Title: West Virginia Green-collar Jobs Training Program

West Virginia Green-collar Job Training Program

Budget (Contractual): \$1,000,000

Goals:

- To increase the number of solar and wind installers and technicians and establish state certification
- To increase the number of residential energy auditors and retrofitters and establish state certification
- To familiarize West Virginia's built community with energy code requirements and establish state certification
- To create 40 jobs

Scope: The West Virginia Green-collar Job Training Program will establish and implement green-collar job training curricula and certification programs in West Virginia. For this program, the West Virginia Division of Energy will contract with the Community and Technical College System of West Virginia to solicit applications from the system's institutions and to narrow applications to the top proposal in each category. Applications will be reviewed by the West Virginia Division of Energy. Categories will include:

Solar

Thermal: Train and certify technicians to assess site suitability, install and maintain solar water heating systems

Photovoltaic: Train and certify technicians to assess site suitability, install and maintain grid-connected and off-grid solar photovoltaic systems. They would also become familiar with W.Va. utility requirements for net metering and federal tax credits.

Topics: May include environmental science; basic construction skills; safety; basic electricity; referencing to National Electric Code; power generation and distribution; solar and electrical trade practices; system siting, design and construction; multiple roof types for solar systems; inverters; solar economics including incentives; hands-on installation.

Certification/licensing: Successful participants will become W.Va.-certified. They will learn applicable W.Va. licensing requirements. They will become familiar with NAPCEP (North American Board of Certified Energy Practitioners) certification requirements.

Wind

Commercial: Train and certify technicians to install and maintain commercial-scale wind turbines.

Residential: Train and certify technicians to assess site suitability and maintain residential-scale wind turbines. They would also become familiar with W.Va. utility requirements for net metering and federal tax credits.

Topics: May include environmental science; basic construction skills; safety; basic electricity; referencing to National Electric Code; power generation and distribution; wind and electrical trade practices; system siting, design and construction; wind turbine technology; turbine operation and maintenance; turbine diagnosis and repair; wind economics including incentives; hands-on installation.

Certification/licensing: Successful participants will become W.Va.-certified. They will learn

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: West Virginia Green-collar Jobs Training Program

applicable W.Va. licensing requirements. They will become familiar with NAPCEP (North American Board of Certified Energy Practitioners) certification requirements, as it develops small wind certification.

Building Energy Performance

Energy assessment: Train and certify technicians to assess residential and commercial building energy use, before and after energy retrofitting

Energy retrofitting: Train and certify technicians to install energy-saving measures, e.g. windows, doors, insulation, HVAC system efficiency measures.

Topics: May include environmental science; basic construction skills; safety; building shell; combustion safety; heating and cooling issues; solutions; seasonal building considerations; cost effectiveness of different systems; energy and air infiltration audits and testing; benefits of energy efficiency; hands-on energy assessment tools.

Certification/licensing: Successful participants will become W.Va.-certified. They will learn applicable W.Va. licensing requirements. They will become familiar with BPI (Building Performance Institute) and HERS (Home Energy Rating System) certification requirements.

Energy codes

Overview: Participants (contractors, code officials, engineers, architects, building owners and operators) will learn requirements of the most recently published energy code from the International Code Council, currently the 2009 International Energy Conservation Code. The course will enable participants to apply energy codes to new construction and market buildings as energy efficient.

Topics: May include environmental science; commercial and residential building practices; administration and enforcement; material, systems and equipment; prescriptive and performance paths; building envelope; building mechanical systems; lighting

Certification: Successful participants will become W.Va.-certified.

Eligible applicants: The 10 colleges in the Community and Technical College System of West Virginia will be eligible to submit applications for the West Virginia Green-Collar Job Training Program.

Funding availability: \$1,000,000 is available for 4 grants, one in each category above. Each grant will be for a three-year period.

Program implementation: Successful applicants will adopt curricula, hire qualified instructors, post course offerings and initiate training in Fall 2009. Each program will need to demonstrate how the class offering will be self-sustaining beyond the end of the contract period. Programs funded through these grants must be designed to provide the maximum assurance possible that individuals will improve their economic circumstances as a result of participation in the program. For underemployed individuals, the evidence of economic advancement will be increased earnings. For unemployed individuals, evidence of economic advancement will be placement in a job.

Reporting requirements: The Community and Technical College System of West Virginia will provide quarterly progress and final reports to the West Virginia Division of Energy.

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: West Virginia Green-collar Jobs Training Program

7. Program Year Milestones* :

	Milestone	Planned (Number)
1	Year 1 / 1st Quarter: CTCS of WV solicits applications for solar, wind, building energy performance and energy codes courses	1
2	Year 1 / 1st Quarter: CTCS of WV narrows applications to top one in each category	1
3	Year 1 / 1st Quarter: WV DOE reviews and approves applications	1
4	Year 1 / 1st Quarter: Courses developed and begun	4
5	Year 1 / 2nd Quarter: Training courses continue	4
6	Year 1 / 3rd Quarter: Training courses continue	4
7	Year 1 / 4th Quarter: First year of training courses end	4
8	Year 2 / 1st Quarter: Training courses continue	4
9	Year 2 / 2nd Quarter: Training courses continue	4
10	Year 2 / 3rd Quarter: Training courses continue	4
11	Year 2 / 4th Quarter: Second year of training courses end	4
12	Year 3 / 1st Quarter: Training courses continue	4
13	Year 3 / 2nd Quarter: Training courses continue	4
14	Year 3 / 3rd Quarter: Training courses continue	4
15	Year 3 / 4th Quarter: Third year of training courses end	4

8. Standard metrics (required)**

JOB METRICS	Planned
Jobs Created	40
Jobs Retained	0
Total Jobs	40

9. Specific metric activity (required)**

SPECIFIC METRICS	Planned
Workshops, Training, and Education	
Workshops, training, and education sessions, by sector	
Number of workshops, training, and education sessions held (Other)	4
Number of people attending (Other)	40

10. User specified metrics (optional)*

METRICS	Planned

11. Program Year Funds by Source*

a. SEP Grant (all funds in the approved budget)	
DOE	\$1,000,000.00
Market Budget Total	\$1,000,000.00

DOE F 540.1
(08/05)

U.S. Department of Energy
STATE ENERGY PROGRAM (SEP)
NARRATIVE INFORMATION WORKSHEET

OMB: Control No. 1910-5126
Expiration Date: 06/30/08

(Grant Number: EE00113)

Market Title: West Virginia Green-collar Jobs Training Program

b. Leveraged funds anticipated (outside approved budget)	

**Please use additional pages if more space is needed.*

***Mandatory requirement*



**West Virginia
State Energy Program Activities Supported through the
American Recovery and Reinvestment Act**

Recovery Ramp Up

The West Virginia Division of Energy will contract with eight state agencies to implement, administer and oversee eight new energy efficiency, energy education and energy financing programs to be funded through the State Energy Program/American Recovery and Reinvestment Act.

These agencies are responsible for building operation and maintenance and program initiatives that benefit the residents of the state of West Virginia. As such, they have expertise and familiarity with the needs of their facilities and of the best methods to implement educational and financial programs.

Six separate new programs will advance energy-saving projects and job retention at their facilities. The programs use the expertise of on-site energy managers, facility operators or energy performance contractors to identify projects, estimate energy savings and job retention numbers.

It is estimated that the six new programs will save 498,972,250,589 BTUs and retain 271 jobs. In addition, the installation of a geothermal unit at a West Virginia school currently under development will result in 165 KW of new renewable energy capacity in the state.

Additionally, two new programs will support the development of green-collar job training and a revolving loan fund for West Virginia businesses to implement energy-saving measures. The green-collar job training program will support the development of curricula at the state's community and technical colleges in the areas of wind, solar, building energy performance and energy codes. It is estimated that 40 jobs will be created as a result of the program. The revolving loan fund will offer low-interest loans to West Virginia businesses and have the potential of creating and/or retaining 25 jobs.

West Virginia
State Energy Program Activities Supported through the
American Recovery and Reinvestment Act

GOVERNOR'S ASSURANCE FILE

Since the passage of the American Recovery and Reinvestment Act on February 17, 2009, West Virginia has continued on a concerted path toward its requirements, which include policies for state utilities concerning energy efficiency; the use of and compliance with advanced energy codes in residential and commercial construction, and prioritizing the use of the funds for energy efficiency and renewable energy programs.

The bulk of West Virginia's proposal targets energy efficiency in public buildings. The establishment of a revolving loan fund for businesses to make energy efficiency improvements (including renewable energy installation) and a robust green-collar job training program illustrate the state's commitment to renewable energy.

Actions relevant to meeting ARRA requirements in West Virginia range from communications between Gov. Joe Manchin III and relevant state regulatory bodies to the passage of a law requesting that the W.Va. Fire Commission promulgate rules adopting the 2009 edition of the required energy codes. During the summer of 2009 the West Virginia Division of Energy will work through the building code adoption process with the fire commission.

A timeline and discussion of events related to meeting the assurances set forth in Section 410 of the Recovery Act is below:

February 27, 2009, letter: Gov. Joe Manchin III wrote the Honorable Steven Chu, secretary, U.S. Department of Energy:

"I will communicate to our public utility commission and request that they implement, in appropriate proceedings, a general policy to promote energy efficiency and develop appropriate rate incentives consistent with the statutory language contained in Section 410 of ARRA. I am also requesting that our state fire commission take certain regulatory actions to improve building energy codes, consistent with state law and state constitutional requirements, and to consider the statutory language contained in ARRA."

February 27, 2009, letter: Gov. Joe Manchin III wrote to Michael A. Albert, chairman of the West Virginia Public Service Commission:

"I request that you consider appropriate additional steps consistent with state law ... to implement appropriate incentives for energy efficiency programs."

February 27, 2009, letter: Gov. Joe Manchin III wrote to Sterling Lewis Jr., state fire marshal, West Virginia Fire Commission:

"As a condition of receiving our State's share of \$3.1 billion in State Energy Program (SEP) funds, our State must demonstrate that we are taking certain actions to implement certain building energy codes for commercial and residential buildings and develop a

plan to achieve compliance with said codes. I encourage you to take appropriate steps consistent with this federal statute.”

March 12, 2009, letter: The chairman of the W.Va. Public Service Commission indicated that the commission is analyzing appropriate policies to implement in response to the governor’s correspondence.

April 11, 2009: The West Virginia Legislature passed House Bill 2976 that states:
The State Fire Commission shall propose a rule for legislative approval in accordance with the provisions of article three, chapter twenty-nine-a of this code to include the following building energy codes in the State Building Code:

- (1) The 2009 edition of the International Energy Conservation Code for residential buildings or other building energy code or codes for residential buildings that meets or exceeds equivalent energy savings; and
- (2) The ANSI/ASHRAE/IESNA Standard 90.1 2007 building energy code for commercial buildings or other building energy code or codes for commercial buildings that meets or exceeds equivalent energy savings.

April 11, 2009: The West Virginia Legislature passed Senate Bill 297 that creates an advanced energy portfolio for West Virginia that includes renewable and advanced energy generation options for state electricity companies as well as energy efficiency.

April 17, 2009: The W.Va. Fire Commission began the process toward setting a public comment period and a public hearing statutorily necessary in the consideration of the 2009 IECC and the ASHRAE 90.1-2007.

April 2009: As part of West Virginia’s application to the U.S. Department of Energy for Energy Efficiency and Conservation Block Grant funds, the W.Va. Division of Energy proposes:

That the state’s 11 Regional Planning and Development Councils, each governed by a Council composed of mayors and county commissioners, will provide a one-day training workshop on building energy efficiency annually for the three-year life of the program. The Councils or their individual members have a role in building energy efficiency and the adoption and enforcement of building codes.

Meeting topics to be addressed during the three-year period will include:

- A half-day instruction on the 2009 International Energy Conservation Code (annual);
- Cost-effective building energy efficiency technologies;
- Energy saving from energy codes;
- Cost of compliance (materials and labor);
- Advanced building practices;
- Impact of code adoption on local jurisdictions;
- How to create a level playing field for builders;
- Incentives (new and existing) for building in corporate limits; and,
- Specific local concerns.

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary		Grant Program Function or Activity	Catalog of Federal Domestic Assistance Number	Estimated Unobligated Funds		New or Revised Budget		Total
				Federal	Non-Federal	Federal	Non-Federal	
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
1.	SEPP ARRA		81.041			\$32,746,000		\$32,746,000
2.								\$0
3.								\$0
4.								\$0
5.	Totals			\$0	\$0	\$32,746,000	\$0	\$32,746,000
Section B - Budget Categories								
6. Object Class Categories				Grant Program, Function or Activity				Total (5)
				(1) FEDERAL	(2)	(3)	(4)	
a.	Personnel			\$321,103				\$321,103
b.	Fringe Benefits							\$0
c.	Travel							\$0
d.	Equipment							\$0
e.	Supplies							\$0
f.	Contractual			\$32,424,897				\$32,424,897
g.	Construction							\$0
h.	Other							\$0
i.	Total Direct Charges (sum of 6a-6h)			\$32,746,000	\$0	\$0	\$0	\$32,746,000
j.	Indirect Charges							\$0
k.	Totals (sum of 6i-6j)			\$32,746,000	\$0	\$0	\$0	\$32,746,000
7.	Program Income							\$0

Section C - Non-Federal Resources

	(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) Totals
8.					\$0
9.					\$0
10.					\$0
11.					\$0
12. Total (sum of lines 8 - 11)		\$0	\$0		\$0

Section D - Forecasted Cash Needs

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th quarter
13. Federal	\$10,915,333.34	\$2,728,833.34	\$2,728,833.34	\$2,728,833.33	\$2,728,833.33
14. Non-Federal	\$0				
15. Total (sum of lines 13 and 14)	\$10,915,333.34	\$2,728,833.34	\$2,728,833.34	\$2,728,833.33	\$2,728,833.33

Section E - Budget Estimates of Federal Funds Needed for Balance of the Project

	Future Funding Periods (Years)			
	FY 2011	FY 2012	(d) Third	(e) Fourth
16. SEP ARRA	\$10,915,333.33	\$10,915,333.33		
17.				
18.				
19.				
20. Total (sum of lines 16-19)	\$10,915,333.33	\$10,915,333.33		\$0

Section F - Other Budget Information

21. Direct Charges	22. Indirect Charges

23. Remarks

**U.S. DEPARTMENT OF ENERGY
GOLDEN FIELD OFFICE**



BUDGET EXPLANATION FOR FORMULA GRANTS

Applicant: West Virginia Div. of Energy

Budget period: 04/20/2009 - 04/30/2012

Award number: EE00113

Amendment number: A000

1. PERSONNEL - Prime Applicant only (all other participant costs are listed in 6 below and form DOE F 4600.4, Section B. Line 6.f. Contracts and Sub-Grants).

Positions to be supported under the proposed award and brief description of the duties of professionals:

<u>Position</u>	<u>Description of Duties of Professionals</u>
Audit Clerk (3-year period)	Coordinate payments to subgrantees as well as provided quarterly programmatic and financial reports to DOE
Audit Clerk (3-year period)	Assists in the coordination of payments to subgrantees as well as obtain programmatic reports for DOE

Direct Personnel Compensation:

<u>Position</u>	<u>Salary/Rate</u>	<u>Time</u>	<u>Direct Pay</u>
Audit Clerk (3-year period)	\$158,569.40	100 % FT	\$158,569.40
Audit Clerk (3-year period)	\$158,569.40	50 % FT	\$79,284.70
		Direct Pay Total	\$237,854.10

2. FRINGE BENEFITS

- a. Are the fringe cost rates approved by a Federal Agency? If so, identify the agency and date of latest rate agreement or audit below, and include a copy of the rate agreement.
- b. If a above does not apply, indicate the basis for computation of rates, including the types of benefits to be provided, the rate(s) used, and the cost base for each rate. You may provide the information below or provide the calculations as an attachment.
West Virginia does not have a Federal-approved fringe benefit rate agreement. The state's agency payroll units use a 35% fringe rate across pay classes to calculate benefits.

*NOTE - a difference of 1 cent is due to the rounding of numbers.

Fringe Benefits Calculations

<u>Position</u>	<u>Direct Pay</u>	<u>Rate</u>	<u>Benefits</u>
Audit Clerk (3-year period)	\$158,569.40	35.00 %	\$55,499.29
Audit Clerk (3-year period)	\$79,284.70	35.00 %	\$27,749.65
	Fringe Benefits Total		\$83,248.94

3. TRAVEL - Identify total foreign and domestic travel as separate items.

<u>Purpose of Trip</u>	<u>Number of Trips</u>	<u>Cost Per Trip</u>	<u>Total</u>
a. Proposed travel:			

4. **EQUIPMENT** - As defined in 10 CFR 660.202. Definitions are at http://www.access.gpo.gov/nara/cfr/waisidx_00/10cf

a. Basis of cost estimates (e.g., vendor quotes, prior purchases of similar or like items, etc.):

b. Equipment to be purchased and justification of need:

<u>Equipment</u>	<u>Unit Cost</u>	<u>Number</u>	<u>Total Cost</u>	<u>Justification of Need</u>
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5. **MATERIALS AND SUPPLIES** - As defined in 10 CFR 660.202.

a. Basis cost estimates (e.g., vendor quotes, prior purchases of like items, etc.):

b. Supplies to be purchased and justification of need:

<u>General Category</u>	<u>Cost</u>	<u>Justification of Need</u>
-------------------------	-------------	------------------------------

6. **CONTRACTS AND SUBGRANTS** - All other participant costs including subcontractor sub-grants, and consultants For ongoing subcontractors and sub recipients described elsewhere in the application, document and item numbe is listed.

<u>Name of Proposed Sub</u>	<u>Total Cost</u>	<u>Basis of Cost*</u>
WV Department of Administration	\$5,002,035.00	Quote
WV School Building Authority (SBA)	\$3,317,859.00	Quote
WV Higher Education Policy Commission (EDPC)	\$6,993,598.00	Quote
WV Division of Corrections	\$7,194,880.00	Quote
WV Army National Guard	\$1,166,525.00	Quote
WV Department of Health & Human Resources (DHHR)	\$5,000,000.00	Quote
WV Economic Development Authority (EDA)	\$2,750,000.00	Funding Available
Community & Technical College System of WV (CTCS)	\$1,000,000.00	Funding Available

Contracts and Subgrants Total \$32,424,897.00

*For example, Competitive, Historical, Quote, Catalog

7. **OTHER DIRECT COSTS** - All direct costs not included in above categories

a. Basis for cost estimates (e.g., vendor quotes, prior purchase of similar items, etc.):

b. Other direct costs and justification of need:

<u>General Description</u>	<u>Cost</u>	<u>Justification of Need</u>
----------------------------	-------------	------------------------------

8. **INDIRECT COSTS**

a. Are the indirect cost rates approved by a Federal agency? If so, identify the agency and date of latest rate agreement or audit and provide a copy of the rate agreement.

- b. If the above does not apply, indicate the basis for computation of rates, including the types of benefits to be provided, the rate(s) used, and the cost base for each rate. You may provide the information below or provide the calculations separately.

The name and phone number of the individual responsible for negotiating the State's indirect cost rates.

Name:

Phone Number:

Joe Manchin III
Governor
Kelley Goes
Secretary, WV Department of Commerce



Jeff Herholdt
Director

**West Virginia
State Energy Program Activities Supported through the
American Recovery and Reinvestment Act**

DAVIS BACON ASSURANCE

The State of West Virginia affirms all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code. With respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan numbered 14 of 1950 (64 Stat. 1267, 5 U.S.C. App.) and section 3145 of title 40 United States Code.

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

Approved by OMB

0348-0046

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
--	--	--

4. Name and Address of Reporting Entity:
 Prime SubAwardee

* Name:

* Street 1: Street 2:

* City: State: Zip:

Congressional District, if known:

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

6. * Federal Department/Agency: <input type="text" value="N/A"/>	7. * Federal Program Name/Description: <input type="text" value="State Energy Program"/> CFDA Number, if applicable: <input type="text" value="81.041"/>
--	---

8. Federal Action Number, if known: <input type="text"/>	9. Award Amount, if known: \$ <input type="text"/>
--	--

10. a. Name and Address of Lobbying Registrant:

Prefix * First Name Middle Name

* Last Name Suffix

* Street 1: Street 2:

* City: State: Zip:

b. Individual Performing Services (including address if different from No. 10a)

Prefix * First Name Middle Name

* Last Name Suffix

* Street 1: Street 2:

* City: State: Zip:

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

* Signature:

* Name: Prefix * First Name Middle Name

* Last Name Suffix

Title: Telephone No.: Date:

PMC-
EF1

(2/06/02)

U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
ENVIRONMENTAL CHECKLIST
(To Be Completed by Potential Recipient)



**PART I: General
Information**

DOE Project Officer: Darren Stevenson Date: 5/8/2009

Project Title: WV SEP Activities Supported Through ARRA

ST: WV

Organization Name: West Virginia Division of Energy

Solicitation Number: DE-FOA-0000052

Award No:

1. Please describe the intended use of DOE funding in your proposed project. For example, would the funding be applied to the entire project or only support a phase of the project? Describe the activity as specifically as possible, i.e. planning, feasibility study, design, data analysis, education or outreach activities, construction, capital purchase and/or equipment installation or modification. If the project involves construction, also describe the operation of the completed facility/equipment.

Funding from the U.S. Department of Energy for West Virginia State Energy Program Activities Supported Through the American Recovery and Reinvestment Act will be used for the following programs:

The Energy Efficiency in State Buildings: Administration program will support energy efficiency projects identified at state-owned office buildings, including lighting, window, HVAC and electrical upgrades, to reduce taxpayers' costs for government operations.

The Energy Efficiency in State Buildings: K-12 Education program will replace or renovate inefficient HVAC systems at four public schools. It will also support the installation of a geothermal heat pump system at Spring Mills Primary, a new, 60,000-square-foot LEED K-2 school under development.

The Energy Efficiency in State Buildings: Higher Education program will support energy efficiency projects identified at institutions of higher learning including HVAC and electrical upgrades to reduce taxpayers' costs for government operations.

The Energy Efficiency in State Buildings: Corrections program will support energy efficiency projects identified at state correctional institutions including mechanical and electrical infrastructure upgrades, window replacements and the construction of a new natural gas line to complete the conversion from oil to domestic natural gas at a medium-security prison, all to reduce taxpayers' costs for government operations.

The Energy Efficiency in State Buildings: W.Va. Army National Guard program will support lighting system replacements at state Army National Guard armories, reducing taxpayers' costs for government operations.

The Energy Efficiency in State Buildings: Health and Human Resources program will support an energy service contract for projects identified at W.Va. Department of Health and Human Resources (DHHR) facilities, reducing taxpayers' costs for government operations.

The West Virginia Green-collar Job Training Program will establish and implement green-collar job training curricula and certification programs for solar and wind assessment and installation; energy assessment and retrofitting in buildings, and instruction in the most recently published building energy codes.

The Revolving Loan Program: Energy Efficiency for Businesses program will provide a business-related revolving loan fund for the implementation of energy efficiency measures by West Virginia businesses.

2. Does any part of your project require review and/or permitting by any other federal, state, regional, local, environmental, or regulatory agency? Yes No
3. Has any review (e.g., NEPA documentation, permits, agency consultations) been completed?
 Yes No If yes, is a finding or report available and how can a copy be obtained?
4. Is the proposed project part of a larger scope of work? Yes No If yes, please describe.

Do you anticipate requesting additional federal funding for subsequent phases of this project?
 Yes No If yes, please describe.

5. Does the scope of your project **only** involve one or more of the following:
- Information gathering such as literature surveys, inventories, audits,
 - Data analysis including computer modeling,
 - Document preparation such as design, feasibility studies, analytical energy supply and demand studies, or
 - Information dissemination, including document mailings, publication, distribution, training, conferences, and informational programs.

Preparer:
Kelly A. Bragg
Business Contact:
John F. "Jeff" Herholdt Jr.

Phone:
304 957-2004
Phone:
304 558-2234

Email:
kbragg@energywv.org
Email:
jherholdt@energywv.org

PART II: Environmental Considerations**Section A** Conditions or special areas are present, required, or could be affected by your project:**1. Clearing or Excavation**

The Energy Efficiency in State Buildings: K-12 Education program will support the installation of a 165-KW geothermal heat pump system at Spring Mills Primary, a new, 60,000-square-foot LEED K-2 school under development in Berkeley County. The unit will have an EER greater than 14.3 and a COP greater than 3.1. The geothermal heat pump system will use 20-25 percent less energy than a conventional water source heat pump system (boiler and fluid cooler).

The Energy Efficiency in State Buildings: Corrections program will support the construction of a new natural gas line to complete the conversion from oil to domestic natural gas at a medium-security prison.

7. Non-Attainment Areas

(PM-2.5):

Hancock County
Brooke County
Ohio County
Marshall County
Wood County
Berkeley County
Wayne County
Cabell County
Putnam County
Kanawha County
Part of Mason County (Graham Tax District)
Part of Pleasants County (Grant Tax District)

Section B. Would your project use, disturb, or produce any chemicals or biological substances? (i.e., pesticides, industrial process, fuels, lubricants, bacteria)**Section C.** Would your project require or produce any radiological materials?

Update

Print Form

Return to Main Menu