

Shenandoah Regional Energy Efficiency Strategy



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**FUNDED THROUGH THE VIRGINIA DEPARTMENT OF
MINES MINERALS AND ENERGY (DMME)- 2009
VIRGINIA EECBG (ENERGY EFFICIENCY &
CONSERVATION BLOCK GRANT)- 2 YR CONTRACT**

CSPDC APPLIED ON BEHALF OF 20 LOCALITIES

AWARDED \$643,000 IN 2010

ONE IN 26 PROJECTS FUNDED IN THE STATE

Project Components



1. ENERGY AUDITS

2. PROJECT IMPLEMENTATION

3. EDUCATIONAL

Energy Audits



- ❖ **HIRED SPECTRUM DESIGN**
- ❖ **50 BUILDINGS AUDITED IN 20 LOCALITIES
(OVER 750,000 SQ FT OF PUBLIC BUILDINGS)**
- ❖ **DETAILED ENERGY CONSERVATION STUDIES INCLUDED:**
 - ❖ **GENERAL INFORMATION (SIZE, USE, ENERGY COSTS, ETC.)**
 - ❖ **BUILDING ENVELOPE (ROOF, WINDOWS, DOORS, ETC.)**
 - ❖ **HVAC SYSTEMS**
 - ❖ **PLUMBING SYSTEMS**
 - ❖ **ELECTRICAL LIGHTING & POWER SYSTEMS**
 - ❖ **RENEWABLE ENERGY POSSIBILITIES**
 - ❖ **OPERATIONAL CONSIDERATIONS**
- ❖ **UTILITY BILL TABULATION & TRACKING**



Project Implementation



\$22,000 GRANT FUNDS PER LOCALITY
\$3,000 LOCAL MATCH

- ❖ **WEATHERIZATION AND INSULATION**
- ❖ **HVAC RETROFITS**
- ❖ **LIGHTING UPGRADES**
- ❖ **WINDOW/DOOR REPLACEMENTS**
- ❖ **RENEWABLE ENERGY (SOLAR)**

Educational Component



❖ GREEN JOB TRAINING

❖ UTILITY BILL ANALYSIS (PORTFOLIO MANAGER)

❖ ENERGY EFFICIENCY AND CONSERVATION MATERIALS AND TRAINING, WITH TOPICS INCLUDING:

- LED STREETLIGHTS/SOLAR FLASHING LIGHTS
- ENERGY MANAGEMENT SYSTEMS & POLICIES
- TRANSPORTATION CONTROL MEASURES (TCM'S)
- ALTERNATIVE FUELS- FLEET VEHICLES
- WATER/WASTEWATER FACILITIES
- ONSITE RENEWABLE ENERGY

Augusta County: Lighting Upgrades at the Government Center



~ 586 FIXTURES UPGRADED TO HIGH-EFFICIENT T8 LIGHTING



Bath County: HVAC Upgrade at the Sheriff's Office

SHERIFF'S OFFICE



**SANYO VRF (VARIABLE
REFRIGERANT FLOW) UNIT**



Town of Bridgewater: Energy Retrofits at 2 Town Buildings



WINDOW & LIGHTING UPGRADES AT TOWN HALL



HVAC UPGRADE AT WATER TREATMENT FACILITY



Town of Broadway: Energy Retrofits at 5 Town Buildings



City of Buena Vista: HVAC Upgrades at Municipal Building



HVAC UPGRADE AT COURTHOUSE IN MUNICIPAL BUILDING



Town of Craigsville: Energy Retrofits at Craigsville Elementary

CRAIGSVILLE ELEMENTARY SCHOOL



**RE-COMMISSIONING OF HVAC
SYSTEM**



Town of Dayton: Solar Lighting along Streets and at Park

SOLAR STREET LIGHTS



TOWN PARK & COURTYARD LIGHTING



Town of Elkton Energy Retrofits at Town Hall



NEW STORM WINDOWS



ENERGY STAR UPGRADES



Town of Glasgow Energy Retrofits at Town Buildings



GLASGOW TOWN HALL



PUBLIC WORKS BUILDING



Town of Goshen: Energy Retrofits at Town Hall



STORM WINDOWS AND DOORS



ATTIC AND CRAWL- SPACE INSULATION



LIGHTING UPGRADE

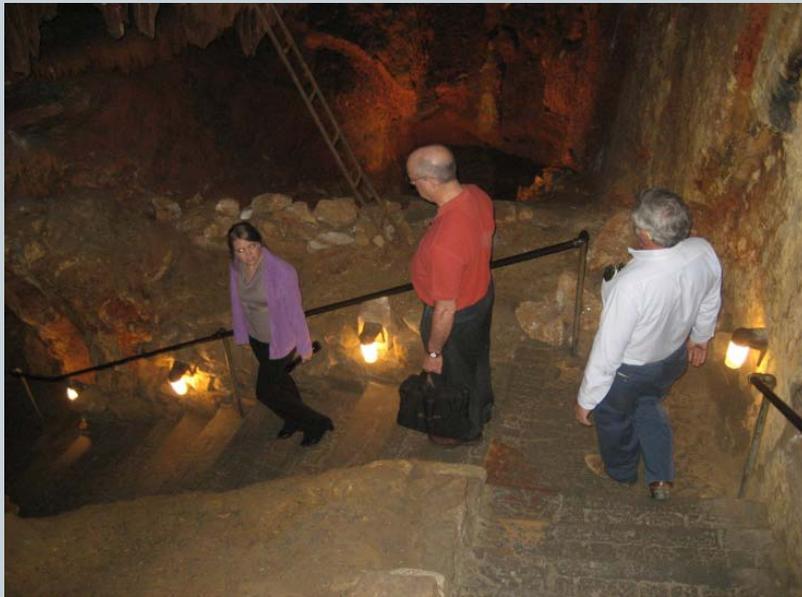


ENERGY-STAR APPLIANCE & WATER CONSERVATION UPGRADES

Town of Grottoes: Energy Retrofits at Grand Caverns



LED LIGHTING IN CAVERNS



HVAC UPGRADE AT STONE HOUSE



Highland County: Energy Retrofits at 4 County Buildings



**HIGHLAND COUNTY COURTHOUSE
& SHERIFF'S OFFICE**



**SOCIAL SERVICES &
HEALTH DEPARTMENT**



City of Lexington: Roof Insulation at Rescue Squad Building



Town of Mt. Crawford: Energy Retrofits at Ruritan Center (Town Hall)



WINDOW REPLACEMENT, LIGHTING UPGRADE, AND ATTIC INSULATION

Rockbridge County: Lighting Upgrades at Administration Building



LIGHTING UPGRADE FOR ~240 T12 FIXTURES



Rockingham County: Lighting Upgrades at County Jail



City of Staunton: HVAC Upgrade at Public Works Facility

**NEW GAS FIRED RADIANT
HEATERS AT STAUNTON
PUBLIC WORKS
DEPARTMENT**



Town of Timberville: HVAC Upgrades at Town Buildings

HVAC AT TOWN HALL



HVAC AT POLICE STATION



City of Waynesboro: HVAC Upgrades at Community Center



CSPDC Office: Energy Retrofits



- ❖ **RE-COMMISSION HVAC SYSTEM**
- ❖ **INTERIOR & EXTERIOR LIGHTING UPGRADES**
- ❖ **NEW PROGRAMMABLE THERMOSTATS**



Benefits



INVESTMENTS IN LOCAL INFRASTRUCTURE

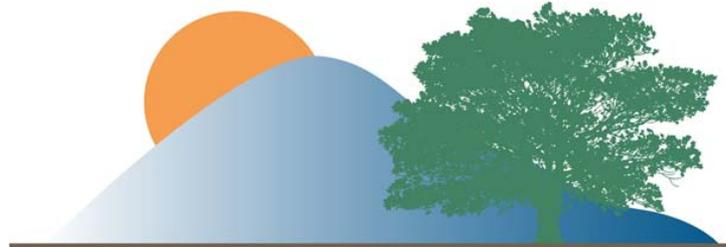
\$300,000 (ESTIMATED) IN ENERGY SAVINGS ANNUALLY IN CENTRAL SHENANDOAH REGION

MANY LOCAL JOBS CREATED/RETAINED

(33 CONTRACTORS- 3,365 HOURS; 2,500 HOURS OF PROFESSIONAL SERVICES)

GREEN JOB/ENERGY-EFFICIENCY TRAINING

A DOCUMENTED, STRATEGIC PLAN FOR FUTURE PROJECTS!!!



CSPDC

Central Shenandoah Planning District Commission



***FOR MORE INFORMATION ABOUT THIS AND OTHER ENERGY-RELATED PROGRAMS,
PLEASE CONTACT THE CENTRAL SHENANDOAH PLANNING DISTRICT COMMISSION.***

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