

Loudoun County Energy Strategy

2.2. Executive Summary Part 2 - 2009 Energy Efficiency Conservation Block Grant

Under the auspices of the American Recovery and Reinvestment Act, Loudoun County is eligible for a formula based grant amount of \$2,215,600 for energy efficiency projects, with \$250,000 encumbered to date. The following projects are being recommended for consideration for use of the remaining \$1,965,600 in funds. They are not listed in any priority order.

	Project	Task Description	Estimated Project Cost	Potential Matching Funds	Jobs Created	Benefits	Energy and Environmental Impact
A	Temporary Position to Support Energy Efficiency Programs	Employ staff to implement CES and grant projects and provide reporting.	\$196,560	None	1 job for duration of the grant	Necessary to meet the requirements of the grant.	High
B	Loudoun County Youth Shelter Expansion	Implement renewable energy solutions through solar and geothermal solutions.	\$500,000 - \$600,000	None	36 jobs for project duration	Provides 60% reduction for both energy and pollution, reduces peak demand on the grid, and provides an educational platform.	Medium
C	Scott Memorial Park Solar Lights & Charging Stations	Implement renewable energy solutions for parking facilities by using 210 kW of solar powered lighting.	\$300,000	None	4 jobs for project duration	Provides affordable public option for charging electric vehicles. Potential source of income for the County with excess electricity being sold to grid.	High
D	Education and Outreach to Business Community	Educate and promote efficient building standards and practices to the business sector.	\$250,000 - \$300,000	Chamber of Commerce / Private Sector	2.5 to 3 jobs for project duration	Provides potential 40% increased energy efficiency gains in commercial buildings.	High
E	Education and Outreach to Residents	Provide outreach and education to homeowners to promote home efficiency measures.	\$250,000 - \$300,000	Department of Energy/ Joint Regional Efforts	2.5 to 3 jobs for project duration	Can deliver 20% residential energy efficiency gains with minimal 5% increase in construction costs.	High

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F	Energy Solution for Moorefield Station Scale Project and Digital Realty Trust data center cluster	Develop Integrated Energy Master Plan for Mixed-use Transit Neighborhood combined with a major Data Center cluster	\$300,000 - \$500,000	Private Sector	6 to 9 jobs for 6 to 9 months	Provides potential multi-sector energy savings of 40% to 50%.	High
G	Energy solution including Gas-Fired CHP cluster of 8 County Buildings Scale Project	Create plan for effective investments in efficient energy use and clean supply by implementing smaller scale integrated solution.	\$150,000 – \$200,000	None	1.5 to 2 jobs for project duration	Provides 40% reduction in energy requirement, reduces peak demand on the grid, and provides an educational platform.	Medium
H	Implementation of Energy Audits Recommendations	Implement the second phase of an existing County building energy audit program.	\$1,100,000 - \$1,250,000	None	11 to 12 jobs for project duration	Reduces annual costs to the County by \$124,000, as well as reduces peak demand on the grid.	Medium
I	Building standards and Energy Performance Labeling (EPL)	Educate and promote efficiency to key stakeholders in residential and commercial buildings.	\$200,000 - \$250,000	None	1 to 1.5 jobs for project duration	Ensures code compliance with an increased 5% efficiency gain over current code.	High

These projects are a conscious mix that supports the successful launch of the CES in three distinct ways. The strong recommendation is to implement at least one from each group.

1. Immediate and visible energy saving projects that have both educational and proliferation potentials.

- *B: Loudoun County Youth Shelter Expansion*
- *C: Scott Memorial Solar Lights and Charging Stations*
- *H: Implementation of Energy Audit Recommendations in County Buildings*

2. Stakeholder engagement and awareness of benefits of a community approach to energy productivity

- *D: Education and Outreach to Business Community*
- *E: Education and Outreach to Residents*
- *I: Building Standards and Energy Performance Labeling*

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3. Pre-planning for successful implementation of Integrated Large Scale Projects with potential to pilot various policy and institutional aspects of the CES.

- *F: Moorefield Station and Digital Realty Trust Data Centers*
- *G: Energy Solution for County Buildings Cluster*