

**V(A). Planned Program (Summary)**

**Program # 8**

**1. Name of the Planned Program**

Sustainable Energy

Reporting on this Program

**V(B). Program Knowledge Area(s)**

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	100%		0%	
	<b>Total</b>	100%		0%	

**V(C). Planned Program (Inputs)**

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	3.0	0.0	0.0	0.0
Actual Paid Professional	5.7	0.0	0.0	0.0
Actual Volunteer	0.4	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
53023	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
53023	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
123427	0	0	0

**V(D). Planned Program (Activity)**

1. Brief description of the Activity



2012 33

**Output #2**

**Output Measure**

- Amount of grant dollars generated to support clean energy

<b>Year</b>	<b>Actual</b>
2012	255002

**Output #3**

**Output Measure**

- Number of technical (fact sheets) generated about clean energy

<b>Year</b>	<b>Actual</b>
2012	9

**Output #4**

**Output Measure**

- Number of volunteers supporting clean energy

<b>Year</b>	<b>Actual</b>
2012	9

**Output #5**

**Output Measure**

- Number of partnering agencies/organizations around clean energy  
Not reporting on this Output for this Annual Report

**Output #6**

**Output Measure**

- Number of Extension Agents trained  
Not reporting on this Output for this Annual Report

**Output #7**

**Output Measure**

- Number of new technologies adopted by individuals/families/organizations/communities

<b>Year</b>	<b>Actual</b>
2012	4

**Output #8**

**Output Measure**

- Number of curricula developed and/or disseminated for both formal and informal education.  
Not reporting on this Output for this Annual Report

**Output #9**

**Output Measure**

- Press/News Releases or columns submitted.

<b>Year</b>	<b>Actual</b>
2012	73

**Output #10**

**Output Measure**

- Hits to Websites (7)

<b>Year</b>	<b>Actual</b>
2012	72120

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Percent of participants reporting increase in knowledge about clean energy
2	Percent of participants reporting change in behavior in energy use
3	Percent of participants reporting a change in condition in their home, business, community, etc.
4	Planning, development and implementation of bio-based, renewable energy projects (such as processing plant, wind farm, etc.)
5	Participants analyze options for cost-effective energy conservation, efficiency, and/or renewable energy measures.

### **Outcome #1**

#### **1. Outcome Measures**

Percent of participants reporting increase in knowledge about clean energy

Not Reporting on this Outcome Measure

### **Outcome #2**

#### **1. Outcome Measures**

Percent of participants reporting change in behavior in energy use

Not Reporting on this Outcome Measure

### **Outcome #3**

#### **1. Outcome Measures**

Percent of participants reporting a change in condition in their home, business, community, etc.

Not Reporting on this Outcome Measure

### **Outcome #4**

#### **1. Outcome Measures**

Planning, development and implementation of bio-based, renewable energy projects (such as processing plant, wind farm, etc.)

Not Reporting on this Outcome Measure

### **Outcome #5**

#### **1. Outcome Measures**

Participants analyze options for cost-effective energy conservation, efficiency, and/or renewable energy measures.

#### **2. Associated Institution Types**

- 1862 Extension

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Actual</b>
2012	269

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

1. The importance of expanding education and research efforts in agricultural energy is validated in that the Association of Public and Land Grant Universities (APLU) identified "creat[ing] pathways to energy independence" as one of seven Strategic Programming Opportunities for Extension at the national level for 2010 and beyond (<http://www.aplu.org/NetCommunity/Document.Doc?id=2019>).

2. Energy issues have gained prominence in recent years due to the economic crisis, climate change, the BP oil spill, and otherwise. In Colorado, one of the most aggressive renewable portfolio standards in the nation has been adopted as part of the state's move toward a New Energy Economy.

**What has been done**

Demonstrations, classes, group discussions, news releases, newsletters, one-on-one conversations, web sites, and use of social media.

**Results**

Annual savings estimated from investments in energy efficiency and/or renewable energy = \$2547. In addition, capital invested in energy efficiency and/or renewable energy was reported at \$25,697.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

## **V(H). Planned Program (External Factors)**

### **External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)
- Other (new planning & reporting system)

### **Brief Explanation**

Colorado's on-line planning and reporting system does not furnish data in percentages. Therefore, all previously planned %-age outcomes are not reported.

## **V(I). Planned Program (Evaluation Studies)**

### **Evaluation Results**

Various quotes from DIY Energy Assessment workshop participants (6 statewide):

- The info you gave about solar, PV, & geothermal was enough for me to NOT invest in any of them because there is a 20 year break even.
- Though we have not implemented any of the cost-effective energy upgrades or taken advantage of any financial incentives, do note that they will be made and that plenty of very strong incentives will be put into those options to better conserve energy and money based off what the class has taught us.
- We wrapped all hot water pipes with the closed cell insulation under our house. We installed a cool roof. We brought up attic insulation to R 49+ and are doing the rest of the attic to R 49.
- Had an energy audit conducted at my Denver residence and am in the process of obtaining estimates for additional insulation. Will also replace lights with CFLs. Estimated annual savings of \$325.

### **Key Items of Evaluation**