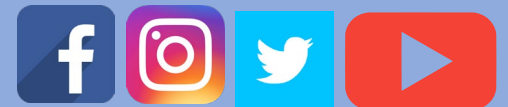


# State Energy Program (SEP)

GRANT APPLICATION WORKSHOP

December 7, 2023

*We will begin at 10:05 a.m. to allow virtual attendees time to join.*



# Introductions

*Welcome –*

**ADECA Director Kenneth W. Boswell**

*Introduction of State Energy Program Staff –*

Jennifer Lee, ADECA Energy Division Chief

# Workshop Agenda

- State Energy Program Staff
- State Energy Program Overview
  - Eligible Entities
  - Program Information
  - Eligible and Ineligible Measures
  - Rejections
  - Rating Criteria
- Grant Administration
  - Procurement
  - Specific Funding Requirements
- Application Guide Breakdown



State Energy  
Program  
Staff



Karl Frost, Energy Efficiency Unit Chief

[karl.frost@adeca.alabama.gov](mailto:karl.frost@adeca.alabama.gov)

334-242-5322

Shondra Swinney, State Energy Program Supervisor

[shondra.swinney@adeca.alabama.gov](mailto:shondra.swinney@adeca.alabama.gov)

334-242-4369

Evan Elliott, State Energy Program Manager

[evan.elliott@adeca.alabama.gov](mailto:evan.elliott@adeca.alabama.gov)

334-353-3004

# State Energy Program Overview

**The State Energy Program (SEP) is federally funded by the U.S. Department of Energy to fulfill the following:**

- Provide funding and technical assistance to enhance energy security
- Advance state-led energy initiatives
- Maximize the benefits of decreasing energy waste
- Increase energy affordability. It also helps prepare for natural disasters
- Improve the security of the State's energy infrastructure
- Assist states in meeting federal requirements to prepare for an energy emergency and develop an individual state energy security plan



# State Energy Program Overview

Congress appropriates funds annually to support program activities, which includes funding for formula grants, competitive awards, and technical assistance.

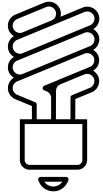
Additional funds can be appropriated for related energy efficiency programs managed by the Energy Efficiency Unit in ADECA's Energy Division.

The funding is utilized to plan and implement energy programs in Alabama that are designed to achieve national energy goals such as:

- Lowering energy costs and consumption
- Decreasing reliance on imported energy
- Reducing impacts of energy production and use on the environment
- Increasing energy security and reliability



# Eligible Entities



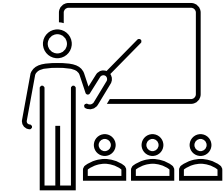
## Retrofits

- Incorporated units of local government (municipalities and counties)
- Public K-12 school systems
- Non-profit organizations



## Wastewater Treatment

- Wastewater treatment facilities



## Energy Codes Training

The following entities that have knowledge of the Alabama Energy and Residential Code:

- Non-profit organizations
- Colleges, and universities

# Program Information



**Subrecipients can request advanced funding or request reimbursements.**



**Reimbursement and Advanced funding will only be paid to subrecipients who adhere to Federal and State regulations.**



**Projects must be completed prior to the end of the performance period on September 30, 2024.**





# Eligible and Ineligible Measures



## Retrofits

### Eligible Measures:

- Energy-efficient lighting
- HVAC Replacement
- Programmable Thermostats
- Photovoltaic Systems
  - Must be on existing Rooftops and Parking Shade Structures or;
  - A  $\leq$  60 KW system unit installed on the ground within the boundaries of an existing facility.
- Solar Thermal Systems must be  $\leq$  20 KW

## Wastewater Facilities

### Eligible Measures:

- Variable Frequency Drives
- Pump Stations
- Supervisory control and data acquisition (SCADA) control systems
- Lighting
- HVAC

## Ineligible Measures

- Energy-efficient windows and doors
- Photovoltaic Systems outside the boundaries of an existing facility
- Solar Thermal Systems over 20 KW

# Eligible and Ineligible Measures

**SEP regulation 10 CFR Part 420 -- State Energy Program does not allow expenditures or matching contributions under any award for the following:**

- For construction or repair of buildings and structures;
- To purchase land, a building or structure;
- To subsidize fares for public transportation;
- To subsidize utility rate demonstration or state tax credits; or
- To conduct or purchase equipment to conduct research, development, or demonstration.

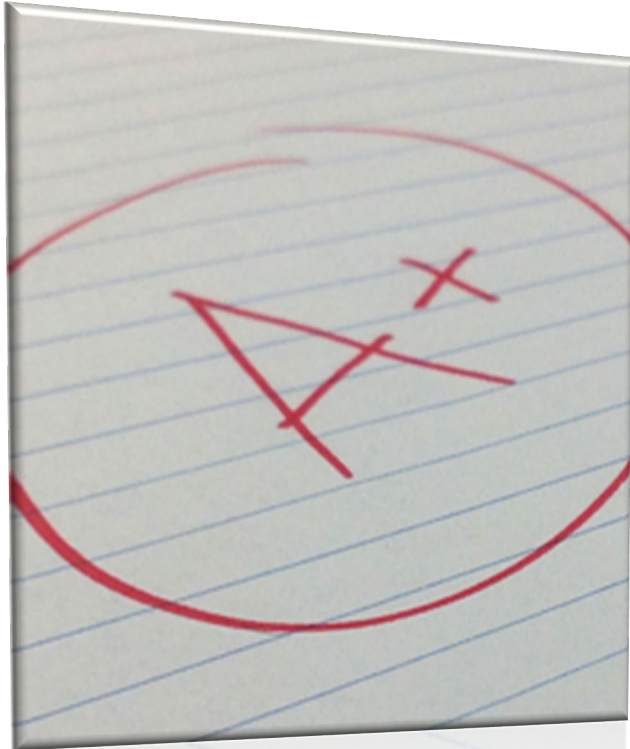


# Rejections

## **ADECA may reject an Application for any one or more of the following reasons:**

- The application is incomplete, not prepared as required or contains additional terms, conditions, or exceptions;
- Any application or project deliverable is not provided or completed as and when required;
- The Applicant submits more than one application for the same physical site (building) or address;
- The Applicant is debarred or suspended from submitting bids or appears on the Federal List of Excluded Parties Listing System;
- The Applicant has breached, defaulted, or otherwise not performed on another grant or similar agreement or has had a grant or similar agreement terminated for cause by ADECA, has agreed not to bid, or has had suspension or debarment proceedings initiated against it; or
- Any other action or omission, error, or act that, in the judgment of ADECA, renders the Application nonresponsive, ineligible, or not viable.

# Rating Criteria





Applications will be graded using the criteria established in the *Rating Criteria* ([located on our webpage](#)).

Each criterion has an assigned number of points totaling 100 possible points

Applications are ranked by their average score of the *Rating Criteria* reviewed by at least 3 individuals.

# Grant Administration

## SEP Must-Haves (if awarded)

- Obtain a Unique Entity ID (UEI) Number (formerly DUNS) from  SAM.GOV®
- Obtain an Employer Identification Number (EIN) from the  IRS
- Register with the State of Alabama Accounting and Resource System (STAARS) Vendor Self Service (VSS) portal at <https://vendors.alabama.gov>
- Maintain an active registration in the System for Award Management (SAM) at <https://www.sam.gov>

# Procurement



- Maintain a written procurement policy and follow proper procurement procedures as stated in 2 CFR Parts 200 and 910, all applicable subparts or appendices, and the **Alabama Competitive Bid and Public Works Law**.
- Adhere to the **Beason-Hammon Alabama Taxpayer and Citizen Protection Act** through E-Verify.
- Adhere to the **Build America, Buy America** provision.
- Ensure the **Davis-Bacon Act** is enforced for all laborers and mechanics employed and funded through this award.

# Specific Funding Requirements

## Build America, Buy America



*All iron, steel, manufactured goods, and construction materials used in a Federally-funded infrastructure project are manufactured domestically.*

IMPORTANT



*Subrecipients will be required to obtain a certification from the manufacturer of an applicable item that the item meets the following BABA provisions. This certification must be provided to ADECA for review and approval.*

# Specific Funding Requirements

## Build America, Buy America

### Domestic Manufacture Requirements:

- **Iron and Steel:** all manufacturing processes, from the initial melting stage through the application of coatings, must take place in the U.S.
- **Manufactured products:** Product was manufactured in the U.S., and the cost of the components of the product that are mined, produced, or manufactured in the U.S. is **greater than 55%** of the total cost of all components of the product.
- **Construction materials:** All manufacturing processes for the construction material occurred in the United States.





# Specific Funding Requirements

## Build America, Buy America

### **What is an infrastructure project?**

A “project” is anything that involves the construction, alteration, maintenance, and/or repair of infrastructure in the United States.

“Infrastructure” determinations should consider whether the project will serve a public function, including whether the project is publicly owned and operated, privately operated on behalf of the public, or is a place of public accommodation, as opposed to a project that is privately owned and not open to the public.

# Specific Funding Requirements

## Build America, Buy America

### What is included in infrastructure?

- Roads, highways, and bridges
- Public transportation
- Dams, ports, harbors, and other maritime facilities
- Intercity passenger and freight railroads, freight and intermodal facilities
- Airports
- Water systems; including drinking water and wastewater systems
- Electrical transmission facilities and systems
- Utilities
- Broadband infrastructure
- Buildings and real property
- Structures, facilities, and equipment that generate, transport, and distribute energy, including EV charging.



# Specific Funding Requirements

## Build America, Buy America

The previous Buy America Preference (aka the domestic procurement preference) only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project.

BABA applies to all Federal financial assistance—it is not limited to projects funded via the Infrastructure, Investment, and Jobs Act. Moreover, there is no sunset date.

**It is a permanent new requirement.**

# Specific Funding Requirements

## Davis-Bacon Compliance

**Subrecipients will be required to comply with Davis-Bacon and provide documentation to ADECA**

The Davis-Bacon Act, **40 U.S.C. §§ 3141–48**), and Related Acts apply to contractors and subcontractors performing on federally funded or assisted contracts in excess of \$2,000 for the construction, alteration, or repair (including painting and decorating) of public buildings or public works. Davis-Bacon Act and Related Act contractors and subcontractors must pay their laborers and mechanics employed under the contract no less than the locally prevailing wages and fringe benefits for corresponding work on similar projects in the area.

Additionally, for all prime construction contracts in excess of \$2,000, shall comply with the Copeland “Anti-Kickback” Act, **40 U.S.C. § 3145**, which prohibits a Contractor or Subrecipient from inducing any person employed in the construction, completion, or repair of a public work from giving up any compensation to which he or she is entitled to receive.

**In the event of a suspected or reported violation of either of these acts will be reported to the Federal awarding agency.**



[www.dol.gov](http://www.dol.gov)

# Specific Funding Requirements

## Reporting

- Submit applicable supporting documentation including but not limited to contractor invoices and proof of payment.
- Submit data collected on the proposed project in quarterly program status reports.
- Submit a final report within 30 days following the completion of the project which will include information such as reduction in energy consumption and energy cost savings.
- Implement the use of ENERGY STAR Portfolio Manager. Portfolio Manager is an interactive energy management tool that allows tracking and assessing energy and water consumption.  
<http://energystar.gov/buildings>.

# Specific Funding Requirements

## Justice 40 Initiative

SEP is a Justice40 covered program and as such contributes to the President's goal that 40% of the overall project benefits of Federal investments in clean energy and climate solutions flow to Disadvantaged Communities (DAC) that for too long have faced disinvestment and underinvestment.

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DOE strongly encourages eligible entities to maximize project benefits and describe how these benefits with ADECA ensures that DOE's intent will be met regarding selecting projects that will provide benefits for underserved communities.

# Specific Funding Requirements

## Justice 40 Initiative

Benefits include (but are not limited to) measurable direct or indirect investments or positive project outcomes that achieve or contribute to the following in DACs:

1. A decrease in energy burden;
2. A decrease in environmental exposure and burdens;
3. An increase in access to low-cost capital;
4. An increase in job creation, the clean energy job pipeline, and job training for individuals;
5. Increases in clean energy enterprise creation and contracting (e.g. minority-owned or disadvantaged business enterprises);
6. Increases in energy democracy, including community ownership;
7. Increased parity in clean energy technology access and adoption; and
8. An increase in energy resilience.

**Not all eight policy priorities will be applicable to all DOE programs or funding opportunities.**

FY 24 Energy-  
Efficient Retrofits  
Grant Application  
and Guide

# Energy-Efficient Retrofits

*Grant Application and Guide*

**DUE: January 26, 2024, 11:59 PM, CST**

State Energy Program (SEP) FY2024

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Street: 401 Adams Ave., Montgomery, AL 36104-4325  
Mailing: PO Box 5690, Montgomery AL 36103-5690  
[sep@adeca.alabama.gov](mailto:sep@adeca.alabama.gov)



## ENERGY-EFFICIENT RETROFITS PROGRAM GRANT APPLICATION

*APPLICANTS MUST USE THE FOLLOWING APPLICATION FORMAT AND COMPLETE IN ITS ENTIRETY.  
FAILURE TO DO SO MAY RESULT IN LOSS OF POINTS.*

A. Applicant Information **This section is worth 10 points.**

CLEAR APPLICATION

Legal Name of Entity: Alabama Department of Economic and Community Affairs (ADECA)

Type of Organization: Local Government

Employer ID Number (EIN): 12-3456789012

Mailing Address: P.O. Box 5690, Montgomery, AL 36103

Project Director Name & Title: Evan Elliott, Program Manager

Phone Number: (334) 353-3004

Email: evan.elliott@adeca.alabama.gov

CEO Name and Title: Karl Frost, Unit Chief

Accountant Name and Title: John Smith, CFO

# Applicant Information



# Budget Cost Categories



## B. Budget

**This section is worth up to 25 points.** Please provide the following information to explain the estimated costs for the project budget. (Attach additional sheets as needed.)

### 1. Personnel and Fringe

List program personnel by title, include the salary amount of each person to be reimbursed for work on the project (Example: An employee with an annual salary of \$40,000 that will spend 25% of their time on the project, will have a salary budget of \$10,000). Next, enter the fringe rate. Personnel can include the Applicant's employees who will be installing the improvements. Personnel costs under a contract should be included under Contractual.

Title	Grant Amount		Matching Contribution	
	Salary	Fringe	Salary	Fringe
Program manager (admin work)	\$ 0	\$ 0	\$ 2,000	\$ 648
Maintenance Staff (light install)	\$ 0	\$ 0	\$ 400	\$ 130
	\$ 0	\$ 0	\$ 2,400	\$ 778

### 2. Supplies and Materials

List estimated type and cost of supplies and materials. Includes all tangible property and project materials for carrying out the approved scope of work that are not considered equipment (e.g. office supplies, postage, caulking, lighting). **Materials supplied by a contractor are not allowed in this category and should be placed under Contractual.**

Type	Grant Amount	Matching Contribution	TOTAL
40W 2X4 LED flat panel Troffer lights	\$ 6,482	\$ 0	\$ 6,482
			\$ 0
			\$ 0
			\$ 0
			\$ 0
			\$ 0
			\$ 0
			\$ 0
			\$ 0
	\$ 6,482	\$ 0	\$ 6,482

# Budget Cost Categories (continued)



### 3. Contracted Services

List categories of services to be contracted with outside agencies or for professional services. Note that written subcontracts must be obtained to engage these services. *This category includes professional installation and all materials supplied by the installer.*

Contracted Services	Grant Amount	Matching Contribution	<b>TOTAL</b>
Photovoltaic system installation	\$ 9,043	\$ 0	\$ 9,043
Insulation 2400 sq ft (materials & Install)	\$ 4,600	\$ 0	\$ 4,600
			\$ 0
			\$ 0
			\$ 0
	\$ 13,643	\$ 0	\$ 13,643

### 4. Equipment

Provide a description of the equipment, cost, and reason why it is necessary to purchase the equipment. *Equipment is defined as tangible, non-expendable property having a useful life of more than one year and an acquisition cost of \$5,000 or more per unit. Acquisition cost means the net invoice price of the equipment, including the cost of any modifications, attachments, accessories, or auxiliary apparatus necessary to make it usable for the purpose for which it is acquired. (Note: leased or rented equipment should be listed under the "Other" category.)*

Description	Grant Amount	Matching Contribution	<b>TOTAL</b>
20 KW Photovoltaic system	\$ 15,875	\$ 0	\$ 15,875
			\$ 0
			\$ 0
			\$ 0
	\$ 15,875	\$ 0	\$ 15,875

# Budget Cost Categories (continued)



## 5. Other

List other costs including printing, graphics, telephone, rent/lease, maintenance, workshop fees, and computer services.

Expense	Grant Amount	Matching Contribution	TOTAL
			\$ 0
			\$ 0
			\$ 0
	\$ 0	\$ 0	\$ 0

## 6. Indirect

The ADECA, Energy Division will reimburse indirect costs at the Subrecipient's federally negotiated indirect cost rate of the Modified Total Direct Costs (MTDC) (items 1-7, except 6). The ADECA, Energy Division DOES NOT REIMBURSE INDIRECT COSTS ON EQUIPMENT PURCHASES). Attach a copy of your indirect cost rate agreement if you are showing indirect costs on your budget. The ADECA, Energy Division will not negotiate indirect cost rates with Subrecipients but will accept a federally negotiated indirect cost rate or a 10 percent de minimis rate of the MTDC. If requesting the 10 percent de minimis rate, Subrecipients must submit a certification the entity has never received a federally approved indirect cost rate.

		Grant Amount	Matching Contribution	TOTAL
Indirect Cost Rate	10.00 %	\$ 4,000	\$ 0	\$ 4,000

# Budget Cost Categories (ENERGY CODES ONLY)



## 4. Travel

*The ADECA Energy Division will reimburse the written travel rate adopted for your agency or the State of Alabama travel rate, whichever is more restrictive. Attach a copy of your written travel rate adopted for your agency if you plan to use your rate. The State travel rate is listed below.*

Expense	Grant Amount	Matching Contribution	TOTAL
			\$ 0
			\$ 0
			\$ 0
			\$ 0
	\$ 0	\$ 0	\$ 0

### *Overnight per diem:*

- *\$85.00/day for one overnight stay*
- *\$100/day for two or more overnight stays*

### *Single day meal allowances:*

- *A \$12.75 meal allowance if trip is from 6 to 12 hours duration*
- *A \$34 meal allowance if trip exceeds 12 hour duration*

*Mileage Rate: 65.5 cents per mile as of January 1, 2023*

*In-State Actual Expenses are allowable with prior approval*

# Budget Cost Categories (continued)



## BUDGET TOTALS

List the totals of each budget category above. Please make sure that the totals in each budget category listed above match the totals of each cost category below.

Cost Categories	Grant Amount	Matching Contribution (not required)	Project Amount
Personnel	\$ 0	\$ 2,400	\$ 2,400
Fringe	\$ 0	\$ 778	\$ 778
Supplies & Materials	\$ 6,482	\$ 0	\$ 6,482
Contracted Services	\$ 13,643	\$ 0	\$ 13,643
Equipment	\$ 15,875	\$ 0	\$ 15,875
Other	\$ 0	\$ 0	\$ 0
Indirect Cost (10.00%)	\$ 4,000	\$ 0	\$ 4,000
<b>TOTAL</b>	<b>\$ 40,000</b>	<b>\$ 3,178</b>	<b>\$ 43,178</b>

**This section is worth up to 55 points** and describes the project, timeline, and projected savings. Submit one copy of this section for each site/building/location. You may attach additional sheets for this section if necessary.

1. SITE INFORMATION <i>(This section is worth up to 5 points)</i>			
Name of Site:	Trustmark Building		
Physical Address (City, State, Zip):	401 Adams Ave, Montgomery, AL 36104		
County:	Montgomery		
Gross Square Footage:	2,800	ft <sup>2</sup>	Construction Date: 1991
Funding Requested for this Site:	40,000		
Estimated Completion Time:	4	months	
Does the site have any national or state historic site designations?			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Is the applicant aware of any adverse environmental impact which may arise from the implementation of any of the proposed energy conservation measures?			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

2. DESCRIPTION OF PROJECT <i>(This section is worth up to 5 points)</i>
<i>Provide a brief description of the measures to be installed.</i>
The Alabama Department of Economic and Community Affairs plans to implement several energy saving measures through this retrofit award. First, ADECA plans to purchase new LED lighting retrofits for our offices to reduce energy consumption and provide better lighting conditions for the staff. We will use our own personnel to perform the installation to help reduce costs. ADECA will also find a vendor who can supply and install new insulation throughout the office walls to increase energy efficiency by placing less stress on our HVAC systems. Finally, to reduce energy costs, ADECA will find a vendor to supply and install a 20KW photovoltaic system on the roof of the building.

# Site Information & Description



**This section is worth up to 55 points** and describes the project, timeline, and qualifications and experience. You may attach additional sheets for this section if necessary.

# Application Narrative (ENERGY CODES ONLY)

## 1. PROJECT STRATEGY / SCOPE OF WORK

*(This section is worth up to 45 points)*

**1.a.** *Provide a detailed description of the type of trainings and resources to be developed including potential course topics, course content, and resource materials.*

**1.b.** *Provide a detailed description of how trainings and resources will be implemented.*

**1.c.** *Provide a detailed description of how you will engage stakeholders and meet the needs of the construction and inspection communities.*

**1.d.** *Provide a detailed description of your plan to offer technical assistance and CEUs.*

**1.e.** *Provide a detailed description of how you will market and promote trainings and resources as well as how you will track and respond to evaluations.*



# Qualifications & Experience



## 3. QUALIFICATIONS AND EXPERIENCE OF APPLICANT

*(This section is worth up to 5 points)*

*Description of the qualifications and experience of the applicant pertaining to the administration of grant awards and/or energy efficiency projects.*

ADECA has several staff who are experienced in Federal and State Grant programs. Amongst the staff, there is a combined 35 years of grant experience dealing with State and Federal regulations. We have applied and received 5 awards over the past three years, one of which dealt with energy upgrades. Last year, ADECA applied for the annual grant and was awarded \$34,000 to perform HVAC upgrades.

ADECA has one staff member designated to finding and implementing energy savings measures. This individual is responsible for working with energy auditors and seeing if we have any outdated systems which can use a retrofit.

# Related Activities



## 4. ENERGY-RELATED ACTIVITIES OUTSIDE OF PROJECT

*(This section is worth up to 4 points)*

*Provide information on activities outside of the proposed project related to energy efficiency, renewable energy, or conservation, including performance contract, other retrofit activity, energy assessments completed, maintenance staff or teacher education, student curriculum, recycling programs, or similar projects.*

As mentioned, ADECA applied for a previous energy award which helped fund HVAC retrofits this past year. We are constantly looking for energy saving measures which has led us to install occupancy sensors in all of our offices throughout the building. We have also installed WIFI thermostats throughout the building which will allow us to monitor and control the HVAC at all times.

# Project Plan



## 5. PROJECT PLAN

*(This section is worth up to 6 points)*

<b>Deliverables</b> <i>(Description of task and what is to be accomplished. Must include but not limited to procuring supplies and materials/contracts and installation)</i>	<b>Estimated Cost</b>	<b>Start Date (mm/yy)</b>	<b>Duration (days)</b>
Receive Grant Award document and review requirements	\$ 0	01/24	1
Begin requesting several quotes from vendors for each project	\$ 0	01/24	7
Select lowest quoted vendors and submit documentation for review to proceed with procurement	\$ 0	01/24	5
Notify vendors of approval and sign invoices for agreement	\$ 0	01/24	1
Begin installation of new lighting	\$ 7,012	02/24	1
Begin insulation installation	\$ 4,600	02/24	2
Install photovoltaic system on the roof of Trustmark building	\$ 24,918	03/24	8
Compile all invoices, proof of payments, and timecards to submit for reimbursement	\$ 0	04/24	1
Complete all necessary documents for grant administration upon request by Grantor agency.	\$ 0	01/24	180

# Project Details



CURRENT		PROPOSED		Est. Cost	Est. Annual Savings	Est. Payback Period
Qty	Type, Age, Size, R-Value, etc.	Qty	Type, Age, Size, etc.			
38	100W 2X4 LED flat panel Troffer lights	38	40W 2X4 LED flat panel Troffer lights	\$ 7,012	\$ 893	7.8 yrs.
	N/A	1	20 KW photovoltaic system	\$ 24,918	\$ 4,439	5.6 yrs.
	N/A	1	2400 sq ft insulation	\$ 4,600	\$ 829	5.6 yrs.
						yrs.
						yrs.
						yrs.
						yrs.
						----

# Energy Savings Calculations



## 7. ENERGY SAVINGS CALCULATIONS

*(This section is worth up to 15 points)*

Sample calculation for a lighting retrofit project:

Current lighting:

Watts per fixture: 90

Number of fixtures: 245

Proposed lighting:

Watts per fixture: 14

Number of fixtures: 225

Cost of Project: \$14,625

Run time: 60 hours per week, 3,120 hours per year

Electricity rate: \$0.12 per kWh

**Annual savings**

Current usage:  $(90 \text{ w} \div 1,000) \times 3,120 \text{ hrs.} = 280.8 \text{ kWh} \times 245 \text{ fixtures} = 68,796 \text{ kWh}$

Proposed usage:  $(14 \text{ w} \div 1,000) \times 3,120 \text{ hrs.} = 43.68 \text{ kWh} \times 225 \text{ fixtures} = 9,828 \text{ kWh}$

Energy Savings:  $68,796 \text{ kWh} - 9,828 \text{ kWh} = 58,968 \text{ kWh savings} \div 1,000 = 58.968 \text{ MWh}$

Cost Savings:  $58,968 \text{ kWh} \times \$0.12 = \$7,076 \text{ annual}$

Payback:  $\$14,625 \text{ project cost} \div \$7,076 \text{ annual cost savings} = 2.1 \text{ years}$

(Please show work here or attach to application)

**Current Lighting**

Watts per fixture: 100

Fixtures=38

**Proposed Lighting:**

Watts per fixture 40

Fixtures= 38

**Cost of Project:** \$7,012.00

**Run time:** 55 hours/week or 2860 hours per year

**Electric utility rate:** .137 per kWh

**Annual Savings:**

**Current usage:**  $(100\text{w}/1000) \times 2860 \text{ hrs} = 286\text{kWh} \times 38 \text{ fixtures} = 10,868 \text{ kWh}$

**Proposed usage:**  $(40\text{w}/1000) \times 2860 \text{ hrs} = 114.4\text{kWh} \times 38 \text{ fixtures} = 4,347.2 \text{ kWh}$

**Energy Savings:**  $10,868 \text{ kWh} - 4,347.2 \text{ kWh} = 6,520.8 \text{ kWh} / 1000 = 6.5208 \text{ MWh}$

**Cost savings:**  $6,520.8 \text{ kWh} \times .137 = \$893.35 \text{ annual savings}$

**Payback:**  $\$7,012 \text{ project cost} / 893.35 \text{ cost savings} = 7.8 \text{ years}$

# Additional Information

## 8. ADDITIONAL INFORMATION

*(Any additional information you wish to provide regarding your proposed measure)*

ADECA worked with an energy auditor to assess potential retrofits that could reduce our electrical consumption. During this site visit, the auditor stated that new insulation throughout the walls of the building would reduce our energy cost by lowering the stress placed on our HVAC unit to maintain internal temperatures. They also assessed our roof and noted that we had enough room to install a 20 kw photovoltaic system which would help reduce our electric bill by using solar energy.

The auditor provided the following estimates for costs and savings in which we determined the payback period.

Insulation:

Total cost = \$4,600.00

Estimated savings = 15-20% HVAC kWh = 3.5 ton uses roughly 3.5 kWh = 2,520 kWh monthly

2,520 kWh x 12 = 30,240 kWh annually

.2 x 30,240 kWh = 6,048 kWh saved

6,048 kWh x .137 = \$828.57 saved annually

\$4,600/\$828.57 = 5.5

Payback: 5.5 years

Photovoltaic system:

Total cost: \$24,918.00

Estimated savings kWh= 2,700 kWh/Month = 32,400 kWh/Annual

Estimated cost savings: 2700 x .137 = \$369.90 Month or \$4,438.80 annually

Payback: 5.6 years

# Certifications: Authorization

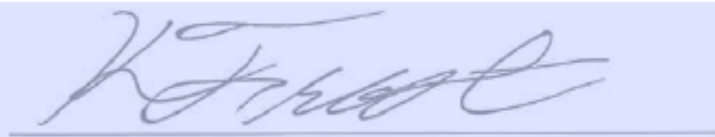
## Certification

I, the undersigned, am authorized to obligate my entity and enter into agreements for my organization. I understand that the above certifications do not guarantee funding and a grant agreement will be executed prior to project funds being expended. I further understand that if the above statements cannot be verified, no grant funds will be awarded under this program. Finally, to the best of my knowledge the above certifications are true and correct.

Requested Grant Amount:	\$ 40,000
Matching Contribution:	\$ 3,178
Matching Contribution Type	In-Kind
<b>Total Project Cost</b>	<b>\$ 43,178</b>

Applicant: Alabama Department of Economic and Community Affairs (ADECA)

Signature of Authorized Signatory:



Date:

11/02/2023

Title of Signatory: Unit Chief

# QUESTIONS?



**Karl Frost, Energy Efficiency Unit Chief**

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