

# Renewable Energy for Volunteer Fire Districts

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*RFP for Coronavirus State and Local Fiscal  
Recovery Funds*

## ***Buncombe County Government***

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# Application Form

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## Question Group

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Buncombe County requests proposals for projects to help the community recover from and respond to COVID-19 and its negative economic impacts.

Buncombe County has been awarded \$50,733,290 in Coronavirus State and Local Fiscal Recovery Funds (Recovery Funding), as part of the American Rescue Plan Act. To date, Buncombe County has awarded projects totaling \$23,093,499, leaving a balance of \$27,639,791 available to award.

Visit <http://www.buncombecounty.org/recoveryfunding><http://www.buncombecounty.org/recoveryfunding><http://www.buncombecounty.org/recoveryfunding><http://www.buncombecounty.org/recoveryfunding><http://www.buncombecounty.org/recoveryfunding> for details.

This infusion of federal resources is intended to help turn the tide on the pandemic, address its economic fallout, and lay the foundation for a strong and equitable recovery.

Buncombe County is committed to investing these funds in projects that:

- Align to county strategic plan and community priorities
- Support equitable outcomes for most impacted populations
- Leverage and align with other governmental funding sources
- Make best use of this one-time infusion of resources
- Have a lasting impact

Proposals shall be submitted in accordance with the terms and conditions of this RFP and any addenda issued hereto.

[Click here for the full terms and conditions of the RFP](#)

## Organization Type\*

Public

## Nonprofit documentation

If nonprofit, attach IRS Determination Letter or other proof of nonprofit status.

## Name of Project.\*

Renewable Energy for Volunteer Fire Districts

## New/Updated Proposal\*

Is this a new project proposal or an updated version of a proposal submitted during the earlier (July 2021) Recovery Funding RFP?

New project proposal

## Amount of Funds Requested\*

\$1,000,000.00

## Category\*

Please select one:

- Affordable Housing
- Aging/Older Adults
- Business Support/Economic Development
- Environmental/Climate
- Homelessness
- K-12 Education
- Infrastructure and/or Broadband
- Mental Health/Substance Use
- NC Pre-K Expansion
- Workforce

Environmental/Climate

## Brief Project Description\*

Provide a short summary of your proposed project.

The purpose of this request is to provide a funding resource to local volunteer fire districts (VFDs) for the turnkey procurement and installation of solar photovoltaic systems on their facilities as well as the potential installation of energy storage where feasible and appropriate.

## Project Plan\*

Explain how the project will be structured and implemented, including timeframe.

The Office of Sustainability has extensive experience with planning for and procurement of solar PV systems on a variety of facilities. As such this project would be incorporated into an existing process currently managed by the Sustainability Office. At this time, certain VFDs have already reached out to the Sustainability Office to express interest. The initial component of establishing this project will involve outreach and engagement with all County VFDs to establish a pipeline of projects and determine site feasibility. There are currently more than 30 VFDs in the County and it is anticipated that only approximately half of them would be good candidates for solar. This funding would be available to the most suitable and cost effective projects first. This will be based on overall energy and GHG reductions, as well as return on investment and system payback.

The Sustainability Office currently has existing contracts for solar PV design services, energy storage evaluation, and structural engineering. The existing contracts will be enhanced to provide these services to all

viable VFD candidates. This process will include conducting sites visits, verification of roof conditions and existing warranties, utility consumption analysis, initial system design and component recommendations, as well as financial analysis which will include budget estimation, cost savings and ROI.

Once all initial evaluation and analysis is complete, the Sustainability Office will handle the process of issuing an RFP for the procurement and installation of systems for all viable VFD candidates as well as proposal evaluation and contractor selection. Due to limited staff capacity, this project would also include contracting for construction management and commissioning services to ensure that VFDs had adequate support during the construction process.

At this time, the Sustainability Office anticipates approximately 33 months for completion of the project in full. The would break down as follows:

- 3 months outreach and engagement
- 3 months for initial design and engineering
- 3 months for RFP and contracting
- 6 months for utility interconnection approvals
- 18 months for construction

## Statement of Need\*

Describe the need that this project will address. Include data to demonstrate the need, and cite the source of the data.

This project has the potential to address a number of needs, both environmental and economic. Significantly reducing the annual electric utility expenses for the VFDs will free up financial resources which can be invested in more direct public safety services, such as increasing pay for the first responders and purchase critical equipment. With consistent escalation of utility rates, lowering the districts utility expenses also reduces the financial pressure to raise property taxes on county residents in the fire districts.

Installing solar and potentially energy storage can increase the resiliency of these essential public safety facilities. Adding the capacity to generate power on-site can enhance the reliability of our fire stations and supplement the grid supplied power and back-up generators. There are growing concerns that the electrical grid is vulnerable to disruptions from extreme weather events, cyber attacks and other threats. As we have seen very recently, increases in the frequency and severity of severe weather events has left our community vulnerable to floods, landslides and other natural disasters. Maintaining the operational capacities of all our public safety facilities has never been more important.

## Link to COVID-19\*

Identify a health or economic harm resulting from or exacerbated by the public health emergency, describe the nature and extent of that harm, and explain how the use of this funding would address such harm.

The COVID-19 pandemic highlighted exacerbated preexisting public health disparities, and expanding green infrastructure is a beneficial approach to address and improve place-based health. Using ARPA funds for targeted infrastructure investment, specifically investments in renewable energy can have a long-lasting impacts on public health and economic resilience post-pandemic.

## Population Served\*

Define the population to be served by this project, including volume and demographic characteristics of those served.

Directly, this project will provide funding for VFDs located throughout the County and which serve the emergency needs of the communities in which they are located. Indirectly however, this project will serve all of the resident in the broader communities in which these projects take place. In addition to the

environmental and health benefits of clean energy, reducing utility costs for these critical public agencies could also have the added benefit of decreasing the potential for tax rate increases in the future, benefiting all residents in the district.

## Results\*

Describe the proposed impact of the project. List at least 3 performance measures that will be tracked and reported. If possible, include baselines and goals for each performance measure.

The projects primary impacts will be to reduce utility costs and greenhouse gas emissions for all participating VFDs. Determining baselines for each participating facility will occur during the initial system design and financial analysis stage of the project. Each site will have a comprehensive analysis to determine system size, budget, cost savings, greenhouse gas reductions and ROI. Once complete reporting on system impacts will be readily accessible via inverter level software installed as a part of project. Reporting will include:

- Total capacity of installed solar on local VFDs
- Distributed Generation: # of kWh of distributed generation created per site and in aggregate
- Carbon Emission Reductions: CO2 emissions reduced per site and in aggregate - in both tons of CO2 and GHG equivalents

## Evaluation\*

Describe the data collection, analysis, and quality assurance measures you will use to assure ongoing, effective tracking of contract requirements and outcomes.

Data collection with solar PV systems is readily available via pre-installed software on the inverters of all solar PV arrays. As mentioned, total capacity, on-site generation and greenhouse gas reductions will be data points readily available once systems are energized.

Included in the budget for this project is funding for 3rd party construction management and commissioning. This is requested specifically for the purpose of providing unbiased 3rd party quality assurance during and after the installation process. Project Manager(s) will be contracted to assist the VFD throughout construction and to provide solar contractor oversight to ensure compliance with all rendered specifications. Once complete, solar PV systems require very little maintenance and should provide easily accessible ongoing data for tracking and reporting purposes.

## Equity Impact\*

How will this effort help build toward a just, equitable, and sustainable COVID-19 recovery? How are the root causes and/or disproportionate impacts of inequities addressed?

At the Office of Sustainability, the focus of our work is directed primarily toward projects and programs that take direct local action to combat the global climate crisis. Given the lack of aggressive climate policy at the federal level, innovative state and local actions will be critical if we are to transition to a sustainable economy with much less racial and economic inequality. We know through a variety of research that communities of color and low income communities (often one in the same) are disproportionately affected by the impacts of climate change. One direct action that local governments can take is to assist as much as possible in a community-wide transition to clean energy.

Buncombe County has the opportunity to support this transition by investing in clean energy infrastructure throughout its community's public spaces. These investments can have a positive impact in a number of ways. The fact that solar averts dirty, fossil fuel pollution has a critical equity aspect, as approximately 68 percent of African Americans (and a similar percentage of Latinos) live within 30 miles of a

power plant, and a recent national study claims that nearly 40 percent of communities of color breathe polluted air. Overall air quality and public health benefits are realized because clean energy resources produce zero or negligible emissions to generate electricity and can displace dirty power sources. We believe policies and programs aimed at expanding clean, distributed energy resources like solar create savings and minimize costs, drive local living-wage jobs, and improve environmental outcomes for low-income communities.

## Project Partners\*

Identify any subcontractors you intend to use for the proposed scope of work. For each subcontractor listed, indicate:

- 1.) What products and/or services are to be supplied by that subcontractor and;
- 2.) What percentage of the overall scope of work that subcontractor will perform.

Also, list non-funded key partners critical to project.

Solar Design: Renu Energy - 10%  
 Structural Engineering Assessments: Summit Design 5%  
 Project Management/Commissioning: Pisgah Energy 15%  
 Solar Construction and Installation: TBD based on lowest responsive bid 70%

## Capacity\*

Describe the background, experience, and capabilities of your organization or department as it relates to capacity for delivering the proposed project and managing federal funds.

The Sustainability Office has extensive experience in managing projects of this exact nature. Currently, the Office of Sustainability is managing the largest portfolio of public renewable energy projects in North Carolina; a total of 41 PV system installations across a large swath of public facilities such as libraries, office buildings, schools, etc. We are also currently working on another round of public solar PV projects which will include an additional 10-12 new systems to be bid out in FY23. There have been many lessons learned through the management of these projects that will serve in making the VFD solar project even more efficient and effective. Currently, the Office of Sustainability is a department with only one full time employee, thus the primary role will be managing the contractors who will perform the work detailed in the project plan. The Sustainability Director does have experience in applying for, managing, and reporting on state, federal and foundational grants, having originally been hired as a grant writer for Buncombe County and having successfully managed multiple grant projects throughout his 16 years with the organization.

## Budget\*

Provide a detailed project budget including all proposed project revenues and expenditures, including explanations and methodology. For all revenue sources, list the funder and denote whether funds are confirmed or pending. For project expenses, denote all capital vs. operating costs, and reflect which specific expenses are proposed to be funded with one-time Buncombe County Recovery Funds.

Download a copy of the budget form [HERE](#). Complete the form, and upload it using the button below.

Sustainability Recovery-Funds-budget.xlsx

## Special Considerations\*

Provide any other information that might assist the County in its selection.

This unique funding opportunity is perhaps a once in a lifetime chance to impact our community in so many ways. The climate crisis and its impact on our community make clean energy projects like these more important than ever. The projects in this proposal are unique in that they have positive environmental as well as economic impacts for our community by reducing greenhouse gas emissions as well as utility costs for critical public safety services.

We know that there are many competing priorities for this funding and are grateful to the County for considering this application.

# File Attachment Summary

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## *Applicant File Uploads*

- Sustainability Recovery-Funds-budget.xlsx



## Coronavirus State and Local Fiscal Recovery Funds Proposed Project Budget

<b>Organization Name:</b>	Buncombe County - Office of Sustainability
<b>Project Name:</b>	Solar on Volunteer Fire Districts
<b>Amount Requested:</b>	1,000,000

Proposed Project Revenue Funder	Amount	Confirmed or Pending?	Notes
Proposed Buncombe COVID Recovery Funds	\$ 1,000,000.00	Pending	
List other sources here			
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<b>Total</b>	<b>\$ 1,000,000.00</b>		

Proposed Project Expenses	Proposed Recovery Funds	Other Funds	Total	Capital or Operating Expense?	Notes
Solar Design	\$ 30,000.00		\$ 30,000.00	Operating	\$2000 per site for 15 sites
Structural Engineering	\$ 15,000.00		\$ 15,000.00	Operating	\$1000 per site for 15 sites
Project Management	\$ 55,000.00		\$ 55,000.00	Operating	3rd party project management
Construction and Installation of Solar	\$ 900,000.00		\$ 900,000.00	Capital	Avg. cost of \$2/watt and system size of 30KW
			\$ -		
List expenses here			\$ -		
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<b>Total</b>			<b>\$ 1,000,000.00</b>		