

**REQUEST FOR PROPOSAL  
FOR FRESNO COUNTY RURAL TRANSIT AGENCY  
DISTRIBUTED ENERGY RESOURCE/  
MICROGRID FEASIBILITY STUDY**

**DUE Thursday, February 3, 2022 5:00 P.M. (PST)**

**Fresno County Rural Transit Agency  
2035 Tulare Street, Suite 201 Fresno, CA 93721  
(559) 233-6789**

Additional background information on this proposal can be found on  
the FCRTA website

[www.ruraltransit.org](http://www.ruraltransit.org)

**Date: January 3, 2022**  
**REQUEST FOR PROPOSAL**  
**FOR FRESNO COUNTY RURAL TRANSIT AGENCY**  
**DISTRIBUTED ENERGY RESOURCE/  
MICROGRID FEASIBILITY STUDY**

Fresno County Rural Transit Agency (FCRTA) is requesting proposals from qualified consultants to conduct an analysis to evaluate the physical/financial feasibility of developing a microgrid, or an affordable electric vehicle (EV) charging model.

**Background:** The Fresno County Rural Transit Agency (FCRTA) is the primary provider of public transit services in the rural areas of Fresno County including each of the thirteen (13) incorporated Cities; City of Coalinga; City of Firebaugh; City of Fowler; City of Huron; City of Kerman; City of Kingsburg; City of Mendota; City of Orange Cove; City of Parlier; City of Reedley; City of Sanger; City of San Joaquin; City of Selma. Many unincorporated rural communities are also served by FCRTA, including: Alder Springs; Auberry; Burrough Valley; Cantua Creek; Caruthers; Del Rey; Easton; El Porvenir; Five Points; Friant; Halfway; Jose Basin; Lanare; Laton; Marshall Station; Meadow Lakes; Mile High; New Auberry; O'Neill's; Prather; Raisin City; Riverdale; Sycamore; West Park; Three Rocks; Tollhouse; Tranquility; and the Native American Indian Rancherias of: Big Sandy; Cold Springs; and Table Mountain.

The FCRTA has been a leader in advancing energy efficient transportation, as it has purchased numerous zero emissions buses and installed public charging infrastructure throughout the County. FCRTA has been working on multiple aspects of reducing emissions and the transition to EVs/zero emission vehicles (ZEVs) including receipt of 31 EVs to date as well as an electrical grid analysis study funded by the FY 2019-20 Caltrans Sustainable Communities Grant to analyze the electrical grid infrastructure and prepare for charging infrastructure installation. Although FCRTA has already begun to add EVs to the fleet, there have been many challenges associated with the deployment of EV's including the range on high-mileage rural routes, charger installation, infrastructure required, timing of charging, temperature related issues, extra staff training required and the extra costs and extra time associated with these challenges.

The feasibility study would assess how to leverage existing and develop additional solar facilities, electricity storage facilities, and charging infrastructure to support electric buses through a partnership with municipalities and potentially bus manufacturers. The study would determine the demand for electric buses during normal operations as well as during critical events and emergencies. The study would also determine the optimal solar and storage power and assess the potential to support the power distribution system by addressing capacity concerns, provide energy capacity if the rest local grid is out of service, put power back in the grid, and/or provide other services that are meaningful to the local utility.

The study would also determine how the distributed energy resource/microgrid would most efficiently distribute energy, including when to distribute power from the microgrid and when to distribute power from electricity storage facilities when the local power is low. This would allow buses and micro transit vehicles to charge up at low-cost with zero carbon output and ensure electricity is available for use by the community when not in use by FCRTA.

The study would identify five potential sites in rural Fresno County for placement of a distributed energy resource technology/microgrid or another affordable electric vehicle charging model that is zero emissions based, as well as opportunities for future expansion. It would also provide a roadmap to transition to 100 percent EV/ZEV fleet as well as reimagine service operations and efficiency within a distributed energy resource/microgrid powered system.

Objectives of the study:

- Evaluate the feasibility of distributed energy resources such as microgrids and other affordable charging model technologies for use in Fresno County.
- Evaluate how microgrids would make the FCRTA transit system more efficient, provide more transit service as well as multi-modal options such as electric car share and bike share.
- Analyze demand for electric and zero emissions vehicle charging.
- Assess space/land requirements for generation and storage technologies.
- Develop a design energy load profile for full occupancy.
- Recommended vehicle charging infrastructure and technologies, as well operational practices for implementation in Fresno County.
- Perform a benefit-cost analysis of the recommended distributed energy resources compared to the current energy system.
- Perform a cost analysis of a micro-grid and solar installations.
- Perform a benefit-cost analysis of various financing and funding mechanisms.
- Develop a system and site plan for each site selected.
- Estimate construction and maintenance costs of the recommended system.
- Evaluate interconnection requirements and/or constraints for onsite and offsite.
- Identify educational curriculum opportunities.
- Evaluate how to connect the facility with adjacent facilities to create one large microgrid that could support multiple facilities and needs within each community location.
- Develop an implementation plan including cost savings, potential funding sources, and financing options.

## I. SCOPE OF WORK

Please refer to Appendix A and B for the proposed scope of work and timeline as submitted to Caltrans in the grant application.

Appendix A and B should be followed in developing project tasks and the timeline for completing the tasks. Minor adjustment to the proposed scope and timeline will be accepted subject to Caltrans' approval.

## II. COORDINATION

The consultant will take primary direction from the FCRTA Project Manager. It is intended that all work will be completed within twenty two months of negotiating a contract in accordance with the schedule component and that the consultant's work will begin immediately upon receiving a notice to proceed.

The selected consultant will best demonstrate the ability to deliver quality work on schedule and in a cost-effective manner, consistent with the tasks and deliverables in this RFP.

File copies of all correspondence, technical memoranda, and reports should be delivered to the FCRTA Project Manager on flash drive or electronically via email in Microsoft Word format. Ten hard copies of the final report should be made available upon completion of the project.

All data, maps and all other materials prepared or collected under this contract will become the property of FCRTA. A monthly progress report should be provided to the project manager along with the invoice. The progress report should provide information on the work that has been completed previous month, and the work expected to be conducted in the coming month. A brief summary should be provided each month reporting the progress of each task (percent completion) and whether the task is on schedule and on budget. A monthly meeting/conference call should be held between the consultant and the project manager to discuss the progress of the project and issues that need to be addressed.

## III. PROPOSED TIME AND SCHEDULE

<i>Activity</i>	<i>Date</i>
Request for Proposals released	Monday, January 3, 2022
Deadline for submitting questions	Monday, January 10, 5:00 P.M.
Deadline for proposal submittal	Thursday, February 3, 5:00 P.M.
Oral interviews/selection process	Week of February 7(Tentatively)
Notice to Proceed	Week of February 14 -Subject to FCRTA Board approval and contract/agreement signing
Completion of project	February 2024

## IV. PROPOSAL REQUIREMENTS

Clarity and succinctness are essential and will be considered in assessing the consultant's capabilities. Proposals that show creativity and new ideas will be highly considered. All consultant proposals submitted in response to this request will be screened by a review committee. The committee will determine, through the screening process, which consultants will be invited to make formal presentations and be interviewed by the selection committee. The selection committee reserves the right to make a final selection without an interview.

One reproducible (unbound) and five copies of the proposal plus an electronic copy on a CD or flash drive must be received at the Fresno County Rural Transit Agency by **Thursday, February 3, 5:00 P.M. local time.** Proposals not received by that date and time *will not be considered.*

In order to simplify the review process and maximize the degree of comparative analysis, the proposal should be organized in the following manner:

**A. Transmittal letter**

The transmittal letter should be signed by an official authorized to bind the consultant contractually and will contain a statement to the effect that the proposal is a firm offer for 90 days. The letter accompanying the proposal will also provide the following: name, title, address, and telephone number of individuals with the authority to negotiate and contractually bind the company. The transmittal shall contain a statement of understanding of the RFP.

**B. Table of Contents**

Include identification of the material by section and page number.

**C. Overview**

This section should clearly convey the consultant's understanding of the nature of the work and the general approach to be taken to its performance. This section should include, but not be limited to, a discussion of the purpose of the project, the organization of the project effort, and a summary of the proposed approach.

**D. Detailed Work Plan**

The prospective contractor shall provide a schedule for completing the project within the schedule set forth in this RFP. The schedule shall identify the major tasks to be undertaken and the time frame for each task. Appendix A & B should be followed in identifying the tasks and the time frame for each task. Minor adjustments to Appendix A & B will be accepted subject to Caltrans' approval.

This section should include the following components:

**1. Task Description**

Include a full description of each step to be followed in carrying out the project as detailed in Appendix A. Minor adjustment to the proposed scope of work in Appendix A is allowed subject to Caltrans' approval. The work description should be presented in sufficient detail (tasks, subtasks, etc.) to show a clear understanding of the work and the proposed approach.

**2. Deliverables**

A description of the format, content, and level of detail that can be expected for each deliverable.

**3. Schedule**

A schedule showing the expected sequence of tasks, subtasks, etc. should accompany the work description. Important milestones should be identified on the schedule. Minor adjustment to the proposed schedule in Appendix B is allowed subject to Caltrans' approval.

**E. Management Approach**

This section should describe the firm's management approach. If the proposal is a team effort, the distribution of work among the team members should be indicated. Describe the organization of the management, the structure of the work assignments, and any specific features of the management approach that require special explanation. Designate by name the project manager to be employed who will oversee the project. **No substitutions of the identified project manager will be allowed without prior approval of FCRTA.**

Include the name and qualifications of all professional personnel to be employed, a resume for each professional (included in an appendix), a statement indicating how many hours each professional will be assigned to the contract and what tasks each professional will perform.

Staffing assignments should be specific enough to demonstrate understanding of skills required and commitment of proper resources. **The selected consultant will not substitute members of the project team without prior approval of FCRTA.**

## **F. Budget and Billing Format**

A cost analysis of the proposed budget will be done by FCRTA staff. Under various circumstances the budget could be subject to Preaudit and/or the final cost subject to Post audit by FCRTA or Caltrans division of Audits and Investigations. The allowability of individual items of cost will be determined by 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31 et. Seq. The Contractor will also be required to comply with 49 CFR, Part 18, and Uniform Administrative Requirement for Grants and Cooperative Agreements to State and Local Governments. The contractor should have an accounting system capable of segregating direct cost from indirect costs per the above cited regulations. The Contractor and Subcontractors will comply with all applicable laws and maintain books, documents, papers, and accounting records for a period of three years from the date of the final payment.

### **1. Method of Payment**

The cost proposal must be prepared consistent with the method of services provided under this agreement and will be reimbursed, by one of, or a combination of the methods below. The proposer must clearly state the method used to prepare the cost proposal.

- Lump Sum payment
- Actual Cost plus Fixed Fee
- Specific Rates of Compensation

Lump Sum proposals will be paid per milestone of completed work or at the end of the contract upon acceptance of the final product. Actual Cost plus Fixed Fee agreements shall be billed at actual payroll costs and include a fixed fee for profit. In agreements reimbursed by Specific Rates of Compensation, billing rates containing a component for profit will be negotiated that will not change during the term of the contract.

### **2. Project Budget**

A maximum of \$455,500 has been budgeted for consultant services for this project.

### **3. Task Budget**

A schedule of estimated costs to complete each task should add down to the total cost of the project (see Table 1 & 2). The task budget should include a subsidiary breakdown by task of hours and billing rate charges. To ensure a full understanding of the resources committed to the project the schedule should clearly indicate the amount of hours key personnel will be used in each task.

### **4. Budget and Cost Breakdown**

The prospective consultant will prepare a detailed cost breakdown for the work to be performed during the project regardless of the method of reimbursement chosen. This will include all tasks required to complete the project including final reports and presentation.

**a. Direct Labor Costs** – A schedule of billing rates and hours worked by employee or category of employee is required of the prime contractor and all subcontractors. Billing rates shall be based on actual pay rates and should cover all costs associated with the employee (salary, benefits, and anticipated cost of living and/or merit increases during the term of the contract). Depending on the individual cost structure, overhead may be applied as a component of the billing rate or applied separately. The proposer should be prepared to validate billing rates with payroll registers, wage agreements, or other payroll documentation.

**b. Overhead Rates** – The overhead rate should include all indirect cost not readily assignable to cost objectives specifically benefited. Typically an overhead rate is calculated on a company or division wide basis by segregating expenses into direct cost and indirect cost categories and then dividing the indirect costs by a direct cost base such as direct labor to arrive at an overhead rate. The overhead rate is then applied on a contract by contract basis to recapture the indirect costs that are not chargeable directly to a final objective such as general and administrative, facilities, equipment, supplies, accounting, maintenance, materials, etc. Some cost structures may be broken into various overhead rates that are applied to different bases. The proposer should be prepared to provide supporting documentation such as prior agreements with government agencies or audits of prior year activities to validate overhead rates structures.

**c. Direct Cost** – Direct costs are those incremental costs that can be identified specifically with a particular final cost objective. Although in some instances direct cost and indirect cost may include similar categories, incremental direct cost attributable to final objectives must be separated and not included in the overhead calculation. All direct cost specifically attributed to the project and not included in the billing rates must be itemized by budget category to be eligible for reimbursement. Once contractually authorized, direct cost budgets may not be substituted without prior written consent of FCRTA.

**d. Sub consultant Fees** – Sub consultants must provide the same cost data detail as the prime contractor (see Table I and Table 2).

**e. Fixed Fee** – A fixed fee is calculated as a basis of total direct and indirect costs. The State of California allows a 10% maximum fee.

The hypothetical cost format example given below is to illustrate required components of the cost proposal only, and may have to be tailored to fit individual cost structures.

HYPOTHETICAL  
COST ESTIMATE

Table 1.- Direct cost by Task

Cost Items	Task 1	Task 2	Task 3	Total
1. Direct Labor	3,700	17,053	5,502	26,255
2. Overhead (___% of Line 1)	1,480	6,821	2,201	10,502
Total Salary Burden	5,180	23,874	7,703	36,757
3. Direct Expenses				
Telephone/FAX	35	28	15	78
Postage/Shipping	12	8	35	55
Graphics/Printing	11	11	75	97
Travel	350		500	850
Misc.	45	45	45	135
Total Direct Expenses	453	92	670	1,215
4. Subconsultant Fees *	4,244	22,276	2,726	29,246
5. Fixed Fee (___% of Lines 1,2,3)	764	1,524	1,132	3,420
Total	10,640	47,766	12,231	70,638 70,638

Table 2 - Project Task Costs by Key Personnel

Task No. and Description	Key Staff #1	Key Staff #2	Staff Support	Total Hours
Task 1. Establish Parameters	25	75		100
Task 3. Data Collection and Analysis		400	250	650
Task 4. Final Report and Presentation	15	50	175	240
Total Hours	40	525	425	990
Billing Rate	\$75.00	\$44.06	\$25.00	
Memo Total	3,000	23,132	10,625	36,757

\* Subconsultants must provide required cost components found in Tables 1 & 2



## **G. Insurance requirements**

Without limiting FCRTA's right to obtain indemnification from the consultant or any third parties, the consultant, at its sole expense, shall maintain in full force and affect the following insurance policies throughout the term of the contract:

1. Comprehensive general liability insurance with coverage of not less than \$1,000,000 combined single limit per occurrence for bodily injury, personal injury, and property damage. Comprehensive general liability insurance policies shall name FCRTA, its officers, agents, and employees, individually and collectively, as additional insured, but only insofar as the operations under the terms of the contract are concerned. Such coverage for additional insured shall apply as primary insurance or self-insurance and any other insurance, maintained by FCRTA, its officers, agents, and employees, shall be given excess only and not contributing with insurance provided under the consultant's policies herein.
2. Comprehensive automobile liability insurance with limits for bodily injury of not less than \$25,000 per person, \$250,000 per accident, and for property damages of not less than \$50,000, or such coverage with a combined single limit of \$250,000.
3. Professional liability insurance of at least \$1,000,000.
4. Worker's compensation insurance as required by law.

This insurance shall not be canceled or changed without a minimum of thirty (30) days advance written notice given to FCRTA. The consultant shall provide certification of said insurance to FCRTA within twenty-one (21) days of the date of the execution of the contract. Such certification shall show, to FCRTA's satisfaction, that such insurance coverages have been obtained and are in full force; that FCRTA, its officers, agents, and employees will not be responsible for any premiums on the policies; that as and if required such insurance names FCRTA, its officers agents, and employees individually and collectively as additional insured (comprehensive and general liability only), but only insofar as the operations under the contract are concerned; that such coverage for additional insured shall apply as primary insurance and any other insurance, or self insurance, maintained by FCRTA, its officers, agents, and employees, shall be excess only and not contributing with insurance provided under the consultant's policies herein; and that this insurance shall not be canceled or changed without a minimum of thirty (days) advance, written notice given to FCRTA.

In the event the consultant fails to keep in effect at all times insurance coverage as herein provided, FCRTA may, in addition to other remedies it may have, suspend or terminate the contract upon the occurrence of such event.

## **H. Disadvantaged Business Enterprise (DBE) Certification**

DBE Bidders Listing (Attachment B) must be completed for all contractors and subcontractors regardless of DBE affiliation.

The FCRTA fully anticipates that it will consistently meet and exceed its adopted DBE overall goal under 49 CFR Part 26 using Race-neutral measures exclusively.

Only DBE firms currently certified per 49 CFR Part 26 will participate as DBEs in our program. Such certification must be issued by Caltrans, FHWA, FTA, DOT, MPO, City, County, or State in accordance with 49 CFR Part 26.

FCRTA will not deny award to contractors on the basis of DBE participation, who demonstrate that they have used good faith efforts to achieve DBE participation.

Contractors selected on the basis of DBE participation must provide the following information with the initial proposal or before entering into a contractual agreement with FCRTA:

1. The names and addresses of the DBE firms.
2. A description of the work each DBE will provide.
3. The dollar amount of participation by each DBE.
4. Proof of DBE certification.
5. Written confirmation that the DBE will participate.
6. If DBE participation is not achieved, evidence of good faith efforts must be provided.

Prime contractors are required to maintain records and document payments to all subcontractors for three years following the performance of the contract. These records will be made available for inspection upon request by any authorized representative on FCRTA, Caltrans, FHWA, or DOT. This reporting requirement also extends to any certified DBE subcontractor. The contractor shall maintain records showing the name and address of each subcontractor, the date of payment, and total dollar figure paid to each subcontractor.

FCRTA will safeguard from disclosure to third parties information that may reasonably be regarded as confidential business information, consistent with federal, state, or local laws.

**I. Conflicts of Interest**

The prospective contractor shall disclose any financial, business, or other relationship with FCRTA that may have an outcome on the selection.

**J. Summary of Qualifications**

Proposals shall include a summary of the firm's qualifications, including resumes of assigned staff.

**K. Signing of Proposal/Authorization to Negotiate**

The proposal shall be signed by an official authorized to bind the proposer and shall contain a statement to the effect that the proposal is a firm offer for a 90-day period. The proposal shall also provide the following: name, title, address, and telephone number of individuals with authority to negotiate and contractually bind the company.

**L. Attachments**

Attachments to be included at the end of the proposal are as follows (as attached herein):

- Attachment A: Title VI Assurance
- Attachment B: DBE Participation
- Attachment C: Budget and Cost Breakdown

## **V. PROPOSAL SUBMITTAL**

### **A. Preparation of Proposal**

The proposal shall be formatted in accordance with the requirements specified in *Section III: Proposal Requirements* of this RFP. Proposal forms shall be executed by an authorized signatory as described in *Section III-K: Signing of Proposal/Authorization to Negotiate*. All proposals shall be prepared by and at the expense of the proposer.

### **B. Examination of RFP Document**

The proposer shall be solely responsible for examining, with appropriate care, the RFP, including any addenda issued during the proposal period. The proposer shall also be responsible for informing itself with respect to any and all conditions which may in any way affect the amount or nature of the proposal, or the performance of the work in the event the proposer is selected. Failure of the proposer to examine and inform itself in this manner shall be at the proposer's own risk and no relief for error or omission shall be given.

### **C. Submission of Proposal/Period of Acceptance**

One reproducible master, an electronic file on CD/flash drive and five copies of all proposals must be delivered to FCRTA no later than **Thursday, February 3, 5:00 P.M.** Proposals will not be accepted after 5:00 P.M. PDT. Postmarks will not be accepted. Proposals should be delivered to:

Janelle Del Campo, Project Manager  
Fresno County Rural Transit Agency  
2035 Tulare Street, Suite 201  
Fresno, CA 93721

All proposals will remain firm for a period of ninety (90) days following the final date for submission. All proposals will become the sole property of FCRTA and a part of its official records without obligation on the part of FCRTA.

This RFP is not to be construed as a contract of commitment on the part of FCRTA. FCRTA reserves the right to reject all proposals, to seek additional information from each proposer, or to issue another RFP, if deemed appropriate.

### **D. Modification or Withdrawal of Proposals**

Any proposal received before the date and time specified above for receipt of proposals may be withdrawn or modified by written request of the proposer. To be considered, however, the modified proposal must be received by the proposal due date and time specified previously.

All verbal modifications to these conditions or provisions are ineffective for proposal evaluation purposes. Only written changes issued by proposers to FCRTA are authorized and binding.

### **E. Rejection of Proposals**

Failure to meet the requirements for the request for proposals will be cause for rejection of the proposal. FCRTA may reject any proposal if it is conditional, incomplete, or contains irregularities or inordinately high cost rates. FCRTA may waive an immaterial deviation in a proposal. Waiver of an immaterial deviation shall in no way modify the Request for Proposals document or excuse the proposer from full compliance with the contract requirements if the proposer is awarded the contract.

## **VI. CONSULTANT SELECTION**

All consultant proposals submitted in response to this request will be screened by a selection committee. The committee will determine, through the screening process, which consultants will be invited to make formal presentations and be interviewed by the committee. **The selection committee reserves the right to make a final selection without an interview.**

The actual award of the contract will be by the FCRTA Board. Proposal opening does not constitute the awarding of a contract. The contract/agreement is not in force until it is awarded by FCRTA and executed by the FCRTA designees.

## **VII. PROPOSER OBJECTIONS**

A proposer may object to any of the terms or provisions set forth in the RFP's Scope of Work or to the selection of a particular proposer on the grounds that FCRTA's procedures, the provisions of this RFP, or applicable provisions of federal, state, or local law have been violated or inaccurately or inappropriately applied by submitting FCRTA a written explanation of the basis for the objection. Deadlines for submittal of objections are:

- No later than two weeks prior to the date proposals are due, for objections to RFP provisions; or
- Within three working days after the date on which contract award is authorized or the date the proposer is notified that it was not selected, whichever is later, for objections to proposer selection.

If the proposer does not state any objections, FCRTA will assume that the RFP scope of services are acceptable to the proposer and have been fully factored into its response. If the proposer intends to negotiate with FCRTA concerning any part of the scope of services that the proposer finds objectionable, the proposer must provide specific language in its response that will address or cure its objections.

## **VIII. FCRTA Rights**

FCRTA may investigate the qualifications of any proposer under consideration, require confirmation of information furnished by a proposer, and require additional evidence of qualifications to perform the work described in this RFP.

FCRTA reserves the right to:

1. Reject any or all of the proposals if it deems such action is in the public interest;
2. Issue subsequent Requests for Proposals;
3. Cancel the entire Request for Proposal;
4. Remedy technical errors in the Request for Proposals process;
5. Appoint an evaluation committee to review the proposals;
6. Seek the assistance of outside technical experts in proposal evaluation;
7. Approve or disapprove the use of particular subcontractors;
8. Establish a short list of proposers eligible for interviews after review of written proposals;
9. Negotiate with some, all, or none of the respondents to the RFP;
10. Solicit best and final offers from all or some of the proposers;
11. Award a contract to one or more proposers;

12. Accept an offer other than the lowest price offer; and
13. Waive informalities and irregularities in proposals and the bid process.

This RFP does not commit FCRTA to enter into a contract, nor does it obligate FCRTA to pay for any costs incurred in preparation and submission of proposals or in anticipation of a contract. All proposals will be subject to public disclosure as required by the California Public Records Act.

FCRTA reserves the right to investigate the qualifications of all firms under consideration to confirm any part of the information furnished by a proposer, or to require other evidence of managerial, financial, or other capabilities which are considered necessary for the successful performance of the contract.

#### **IX. RFP QUESTIONS**

All questions on the RFP should be submitted in writing by Monday, January 10th to:

Janelle Del Campo, Project Manager  
Fresno County Rural Transit Agency  
2035 Tulare Street, Suite 201  
Fresno, CA 93721  
[delcampo@fresnocog.org](mailto:delcampo@fresnocog.org)

All questions and answers will be posted on the FCRTA website at:  
[www.ruraltransit.org](http://www.ruraltransit.org) by Friday, January 14th.

**Attachment A**

**TITLE VI ASSURANCE**

The Fresno County Rural Transit Agency, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d-4 and Title 49, Code of Federal Regulations, department of Transportation, Subtitle A, Office of the Secretary, Part 21 Nondiscrimination in Federally Assisted Programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority businesses enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or nation origin in consideration of an award.

Attachment B

DBE/WBE BIDDERS LISTING

Bidders Listing

Name of Firm	Address	Project Budget \$\$	DBE Status Yes/No	Age of Firm	Annual Gross Receipts

TOTAL BUDGET

===== \$

1. All contractors/subcontractors bidding on the project must provide the requested information.
2. Bidders claiming DBE status must attach a copy of a current Certification issued pursuant to 49 CFR Part 26.
3. Bidders claiming DBE status must attach written affirmation that they will participate in the project.
4. Each bidder must designate if Gross Annual Receipts are greater than or equal to \$750,000.

## Attachment C

### BUDGET AND COST SCHEDULE TEMPLATE

TASKS	(Name)		(Name)		(Name)		Total Task Hours	Total Task Cost
	(Role)		(Role)		(Role)			
	(Hourly Billing Rate)		(Hourly Billing Rate)		(Hourly Billing Rate)			
Task	Hours	Cost	Hours	Cost	Hours	Cost		
<b>Tasks Subtotal</b>								

**DIRECT COSTS**

Direct Cost		Amount
<b>Direct Costs Subtotal</b>		

**SUBCONSULTANTS**

Subconsultants		Total Cost
<b>Subconsultants Subtotal</b>		

<b>PROPOSAL GRAND TOTAL</b>		
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### SCOPE OF WORK: FCRTA DISTRIBUTED ENERGY RESOURCE/MICROGRID FEASIBILITY STUDY

#### Introduction

The Fresno County Rural Transit Agency (FCRTA) is applying for a Caltrans Sustainable Transportation Planning Grant to conduct a Distributed Energy Resource/Microgrid Feasibility Study. The study would evaluate the physical/financial feasibility of developing a microgrid, or an affordable electric vehicle (EV) charging model.

The FCRTA has been a leader in advancing energy efficient transportation, as it has purchased numerous zero emissions buses and installed public charging infrastructure throughout the County. FCRTA has been working on multiple aspects of reducing emissions and the transition to EVs/zero emission vehicles (ZEVs) including receipt of 31 EVs to date as well as an electrical grid analysis study funded by the FY 2019-20 Caltrans Sustainable Communities Grant to analyze the electrical grid infrastructure and prepare for charging infrastructure installation. Although FCRTA has already begun to add EVs to the fleet, there have been many challenges associated with the deployment of EV's including the range on high-mileage rural routes, charger installation, infrastructure required, timing of charging, temperature related issues, extra staff training required and the extra costs and extra time associated with these challenges.

The feasibility study would assess how to leverage existing and develop additional solar facilities, electricity storage facilities, and charging infrastructure to support electric buses through a partnership with municipalities and potentially bus manufacturers. The study would determine the demand for electric buses during normal operations as well as during critical events and emergencies. The study would also determine the optimal solar and storage power and assess the potential to support the power distribution system by addressing capacity concerns, provide energy capacity if the rest local grid is out of service, put power back in the grid, and/or provide other services that are meaningful to the local utility.

The study would also determine how the distributed energy resource/microgrid would most efficiently distribute energy, including when to distribute power from the microgrid and when to distribute power from electricity storage facilities when the local power is low. This would allow buses to charge up at low-cost with zero carbon output and ensure electricity is available for use by the community when not in use by FCRTA.

The study would identify five potential sites in rural Fresno County for placement of a distributed energy resource technology/microgrid or another affordable electric vehicle charging model that is zero emissions based, as well as opportunities for future expansion. It would also provide a roadmap to transition to 100 percent EV/ZEV fleet as well as reimagine service operations and efficiency within a distributed energy resource/microgrid powered system.

Specifically, the feasibility study would:

- Evaluate the feasibility of distributed energy resources such as microgrids and other affordable charging model technologies for use in Fresno County.
- Evaluate how microgrids would make the FCRTA transit system more efficient, provide more transit service as well as multi-modal options such as electric car share and bike share.
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- Assess space requirements for generation and storage technologies.
- Develop a design energy load profile for full occupancy.
- Recommended vehicle charging infrastructure and technologies, as well operational practices for implementation in Fresno County.
- Perform a benefit-cost analysis of the recommended distributed energy resources compared to the current energy system.
- Perform a cost analysis of a micro-grid and solar installations, such as a tree system.
- Perform a benefit-cost analysis of various financing mechanisms.
- Develop a system and site plan for each site selected.

- Estimate construction and maintenance costs of the recommended system.
- Evaluate interconnection requirements and/or constraints.
- Identify educational curriculum opportunities.
- Evaluate how to connect the facility with adjacent facilities to create one large microgrid that could support multiple facilities and needs.
- Develop an implementation plan including cost savings, potential funding sources, and financing options.

Fresno County has some of the worst air quality in the nation and the transportation sector is one of the biggest contributors to pollution. A majority of the census tracts in Fresno County are considered disadvantaged communities, or communities that are disproportionately burdened by multiple sources of pollution. According to CalEnviroScreen, approximately 60 percent of census tracts in the County are considered disadvantaged by SB 535 (communities in the top 25 percent scoring areas from CalEnviroScreen along with other areas with high amounts of pollution and vulnerable populations – see map of CalEnviroScreen in Attachment 2). The California Healthy Places Index (HPI) provides a snapshot of the social determinants of health across California at the census tract level. Over half (58 percent) of the census tracts in the study area are at the 25<sup>th</sup> percentile level of healthy conditions compared to other California census tracts (HPI percentiles below 25 are typically used to indicate disadvantaged communities – see map of HPI Index in Attachment 3).

To improve air quality and mitigate climate change, the State and region have aggressive GHG emission reduction goals. The transportation sector is a major contributor to GHG emissions, with 50 percent of GHG emissions in California generated by the transportation sector according to the Office of Governor Newsom. The State has a GHG reduction target of 40 and 80 percent below 1990 levels by 2030 and 2050, respectively. In 2010, as part of its mandate under SB 375, the California Air Resources Board (CARB) set specific GHG emission reduction targets for cars and light trucks for each of the state's 18 metropolitan planning organizations from a 2005 base year. The GHG reduction targets set for the Fresno region in 2010 called for a five percent per capita reduction by 2020 and a ten percent per capita reduction by 2025.

Further, Governor Brown's Executive Order B-16-2012 established a goal to get 1.5 million EVs on the road by 2025 and Governor Newsom's Executive N-79-20 requires that all new cars and passenger trucks sold in California are zero-emission vehicles. While CARB aims for all public bus fleets to be zero-emission by 2040, FCRTA has an even more aggressive goal of 100 percent fleet electrification by 2025. In 2019, the Innovative Clean Transit (ICT) regulation became effective state-wide and applied to all transit agencies that own, operate, or lease buses greater than 14,000 pounds. The ICT regulation, which is implemented by CARB, states that starting in 2029, public agencies will be limited to the purchase of zero-emission buses only, with a goal of complete transition to zero emissions buses by 2040. Further, CARB requires transit agencies to submit a Zero-Emission Bus Rollout Plan by July 1, 2023 to be in compliance with this Innovative Clean Transit Regulation.

One of the biggest barriers to overcome in achieving the emissions reductions goals through electrifying bus fleets is the capacity of charging stations to fuel vehicles quickly and affordably and with zero emissions. A bus can take anywhere from 2.5 to six hours to fully charge with traditional chargers, and the energy to generate the electricity consumption still contributes to carbon emissions. Further, buses can travel approximately 125 miles on a full charge, which means buses need to rotate in and out of service. This makes it costly and difficult to provide reliable electric bus service in rural areas where electric vehicle charging infrastructure is spread out. An affordable and resilient charging model, through a microgrid system, could respond to these challenges by ensuring there is enough charging capacity along the route to meet demand. Further, microgrid technology, which uses solar or other sustainable power, can result in significant cost savings for the FCRTA.

In addition to wide-spread transit fleet electrification and zero emissions buses, the potential distributed energy resources/microgrid would promote adoption of personal electric vehicles through publicly available charging infrastructure. Currently, Fresno County lags the state average in terms of personal electric vehicle adoption. The personal electric vehicle (PEV) adoption rate in Fresno County is 5.9 EVs/1,000 vehicles versus the statewide rate of 14.1 EVs/1,000 vehicles.<sup>1</sup> The most common reason consumers do not purchase electric vehicles is range anxiety, because there are not enough publicly available electric vehicle charging stations. The number of publicly available electric vehicle charging stations in Fresno County is lower than the state average. In Fresno County,

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<sup>1</sup> Source: *Fresno Council of Governments Electric Vehicle Readiness Plan, January 2021.*

there is just over 0.1 DC fast charging (DCFC) stations and level 2 (L2) stations per 1,000 cars, compared with almost 0.4 DCFC and L2 stations per 1,000 cars statewide.<sup>2</sup>

Further residents in Fresno County face barriers to installing chargers at their places of residence, such as reduced percentage of homeownership and the cost of charging infrastructure installation. Median household income in Fresno County is lower than household income statewide (\$53,969 in Fresno County versus \$75,235 statewide).<sup>3</sup> Additionally, Fresno County has a greater percentage of renters as compared with the percentage of renters statewide (49 percent renters in Fresno County versus 45 percent statewide)<sup>4</sup>. An increase in the use of electric vehicles would reduce GHG emissions generated by personal vehicles, which would help the State of California and Fresno County meet emissions reductions targets.

The study would also evaluate how a potential microgrid would reduce the high cost of transportation for residents and the FCRTA and provide more clean mobility options for rural, disadvantaged communities. For example, in California, the Department of Energy estimates a gallon of gasoline costs \$2.94 compared to an equivalent electric gallon at \$1.86. Fleet electrification powered by a microgrid would result in even more savings. Research on microgrids finds that once installed, microgrids can reduce charging costs from 13 cents/kWh to as low as 4.5 cents/kWh.<sup>5</sup> This significant cost savings for FCRTA can instead be used to provide additional transit service in a region of the state that currently has limited, reliable service. This additional transit service would provide people with lower cost alternatives to driving. Publicly available charging infrastructure could also increase adaptation of personal electric vehicles, further reducing personal transportation costs.

Another potential benefit of a microgrid system, which would be evaluated as part of the proposed feasibility study, is how it could serve as an economic development catalyst for local communities in Fresno County. An affordable distributed energy resource system such as a microgrid could modernize energy infrastructure, providing a more efficient and resilient energy system with and potentially lower costs for electricity and chargers available to the public or municipal government when not in use by FCRTA. The area could also service as a community hub at former underutilized or vacant sites with the potential for partnerships with community organizations to provide electric vehicle carshare and bikeshare, bringing more life and a sense of community to the underserved, disadvantaged area, providing even more mobility options. A microgrid system could also store power, providing an emergency backup power system for essential services and first responders.

The feasibility study would also explore how to improve the resiliency of services that are critical to the health, safety, and vitality of rural cities by creating partnerships with local agencies and organizations to ensure the power grid that serves the community is resilient to power disruption. These partnerships between municipalities and transit agencies could provide the basis for replication in the Central Valley and beyond. As more communities begin to think about sustainability, resilience, and electrification, this study may serve as a model that can be replicated especially in rural disadvantaged communities.

This feasibility study would be conducted in coordination with other state and local sustainable planning efforts including FCRTA's testing of electric vehicle ridesharing and carsharing that provides first-mile/last-mile service and the Fresno Council of Governments/FCRTA ongoing study, the Electric Vehicle Readiness Plan, funded by Caltrans recommends strategies to increase personal electric vehicle adoption. The Electric Vehicle Readiness Plan's early findings show that Fresno County has an insufficient amount of charging infrastructure to meet local electrification demands and statewide goals. The Readiness Plan finds that electric vehicle adoption would save 1.5 billion pounds of CO<sub>2</sub> by 2050, but that an increase in the availability of public charging infrastructure would be necessary to reach statewide goals. If the charging infrastructure is not available, the modeling shows that CO<sub>2</sub> emissions would increase by a million pounds by 2030.

The microgrid feasibility study also supports many of the goals and objectives outlined in the Fresno Council of Government's 2018 Regional Transportation Plan and Sustainable Communities Strategy (2018 RTP/SCS), including its overall vision for 2042 of "A region of diverse transportation options that foster sustainable growth and a vibrant economy, and contribute to improved air quality and healthy communities." The potential microgrid would directly

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<sup>2</sup> Source: *Fresno Council of Governments Electric Vehicle Readiness Plan, January 2021.*

<sup>3</sup> Source: *US Census Bureau Quick Facts, July 1, 2019*

<sup>4</sup> Source: *Fresno Council of Governments Electric Vehicle Readiness Plan, January 2021.*

<sup>5</sup> Source: <https://microgridknowledge.com/electric-buses-microgrid-antelope/>

contribute to the 2018 RTP/SCS's goal 2-1a, an efficient, safe, integrated, multimodal transportation system, by reducing the barriers to the use of electric fleet vehicles and by establishing community mobility hubs that provide access to alternative modes of transportation such as electric bikeshare and carshare. The study as promotes goal 2-3f, a coordinated policy for public transportation that complements land use and air quality/climate change policies, by promoting the use of zero emission electric fleet vehicles. Additionally, the study promotes goal 2-3A, an efficient and fiscally responsible public transportation mobility system, by evaluating the potential cost savings for FCRTA as a result of lower fuel and energy costs.

The study would also forward the California Energy Commission's strategy to help develop roadmaps to advance the commercialization of energy storage, microgrids, and vehicle integration. It will also forward requirements under SB1339 that the California Public Utilities Commission to take action on microgrid policies.

## Project Stakeholders

At the onset of the study, FCRTA and the Consultant would develop a list of stakeholders to reach out to invite to serve on the project advisory committee that will inform development of the microgrid study from start to finish. The consultant will create a stakeholder engagement plan, that includes creating and leading the project advisory committee to educate and gain feedback on the feasibility study. The organizations that will be invited to serve on the project advisory committee include, but are not limited to: state entities (Caltrans, CEC, CARB, and CPUC) regional government agencies (FCOG, Fresno County, and San Joaquin Valley Air Pollution Control District) 13 cities in FCRTA jurisdiction (Selma, Parlier, Huron, Kingsburg, Firebaugh, Mendota, Kerman, San Joaquin, Coalinga, Orange Cove, Reedley, Fowler, and Sanger), local transit agencies (Clovis Transit, Fresno Area Express), local school districts, MV Transportation (FCRTA's transit service provider) and PG&E. The public entities will include first responders, including the police and fire departments of the local cities and Fresno County Fire. Also, non-profit and community organizations will be invited including Calstart, San Joaquin Valley Zero Emissions Bus Working Group, Inspiration Transportation, Fresno Economic Opportunities Commission (FEOC), Valley Leap, Leadership Counsel, Central California Legal Services (CCLA), Self Help Enterprises, Fresno Metro Ministry, Fresno Housing Authority, Centro La Familia Advocacy Services, California Rural Legal Assistance, Inc (CRLA) and Fresno Regional Workforce Development Board.

Community organizations selected will include organizations representing disadvantaged communities. One-on-one meetings will also occur with microgrid technology providers to discuss the specifics of microgrid implementation. Stakeholder outreach efforts will be consistent with Title VI and environmental justice, as low-income and minority communities will be actively involved throughout the feasibility study process through both in-person and digital engagement efforts. No stakeholder outreach efforts will have discrimination of any kind on the basis of race, color or national origin, as well as ethnic group identification, religion, age, sex, sexual orientation, genetic information, or disability.

## Overall Project Objectives

The objectives of the potential microgrid include:

- Leverage existing and developing additional solar, storage and infrastructure for electric bus (transit) through a partnership with member agencies and potentially electric vehicle bus manufacturers.
- Evaluate optimal solar and storage powered electric buses to meet demand and for deployment during a critical event.
- Assess the potential to support the distribution system by addressing capacity concerns, provide black start capability, facilitate renewables integration, or provide other services that are meaningful to the local utility.
- Identify five sites for placement of storage and electric bus charging stations with opportunity for expansion/replication.

- Evaluate fleet electrification powered by sustainable microgrid technology would result in significant emissions reductions in disadvantaged area.
- Support future economic development and growth by modernizing energy infrastructure. More efficient, resilient, and potentially lower cost for electricity and charging will not only benefit the existing community, as well as the surrounding communities. Store electricity that can potentially provide backup power for essential services and first responder in the case of emergency.
- Improve the resiliency of services that are critical to the health, safety, and vitality of rural cities and expanding electric (bus) options, storage, and critical facility partnerships that will create resilience to power disruption.
- Allow FCRTA to save money on fleet fuel costs and invest the money in additional clean mobility options for residents in rural disadvantaged communities.
- Provide FCRTA with a plan to transition to 100 percent EV/ZEV.
- Support FCRTA transit service efficiency and create an optimal service forecast within a distributed energy resource/microgrid powered system.
- Provide multi-modal options such as electric car share and bike share.
- Provide public electric vehicle charging during certain hours to increase the use of personal electric vehicles, further reducing personal transportation costs and vehicle emissions.
- Invest in communities through a trusted public sector partner committed to providing essential services for residents. This investment can promote economic development in underserved and underrepresented places and serve as a community hub for mobility and other services.
- Develop Partnerships with municipalities and transit agencies provide the basis for potential replication in the Central Valley and beyond. As more communities begin to think about sustainability, resilience and electrification, this study may serve as a model that can be replicated, especially in rural disadvantaged communities.

## Summary of Project Tasks

### Task 01: Project Administration

#### Project Kick-off Meeting

FCRTA will hold a kickoff meeting with Caltrans staff to discuss grant procedures and project expectations including invoicing, quarterly reporting, and all other relevant project information. Meeting summary will be documented.

#### Invoicing

Submit Complete invoice packages to Caltrans district staff based on milestone completion- at least quarterly, but no more frequently than monthly.

#### Quarterly Reports

Submit quarterly reports to Caltrans district staff providing a summary of project progress and grant/local match expenditures.

<b>Task Deliverables</b>
Kick-off meeting notes
Invoice packages
Quarterly reports

### Task 02: Consultant Procurement

#### RFP for Consultant Services

FCRTA will complete an RFP process for selection of a consultant or consultant team using procedures that comply with State Contracting Manual, Chapter 5, the Local Assistance Procedures Manual, Chapter 10, and the terms of the agreement with Caltrans.

Staff Coordination

FCRTA will hold monthly in person project team meetings with consultants to ensure good communication on upcoming tasks and to make sure the project remains on time and within budget. Caltrans staff will be invited to the project team meetings.

<b>Task Deliverables</b>
Copy of procurement procedures
Copy of executed consultant contract
Copies of any and all amendments to the consultant contract
Meeting notes from monthly consultant meetings

**Task 1: Existing Conditions**

Conduct a robust technical assessment of the FCRTA system, policies, plans, microgrid technologies, and other relevant regulations and data:

- Review documents/plans related to FCRTA's existing service, future plans and needs, the existing zero emissions bus fleet and related charging needs.
- Review existing plans, policies, and infrastructure related to energy and grid analysis (including, but limited to FCOG's EV Readiness Plan, and the FCRTA Electric Grid Analysis Study) as well as documented experience with prolonged outages in Fresno County and the San Joaquin Valley.
- Review existing state/local regulations and policies that could help or hinder a distributed energy resource system implementation.
- Review policies and implementation of zero emissions bus fleets and distributed energy resource charging systems/infrastructure in up to three comparable agencies or programs to learn and apply the lessons learned and best practices to FCRTA. Make best efforts to communicate with staff for each of the selected agencies/program to understand challenges and strategies. Conduct a due diligence assessment of various distributed energy resources such as microgrids, solar trees, and other affordable charging technology.

<b>Task Deliverables</b>
Memorandum and presentation of policy, plan, and peer review
Memorandum and presentation review microgrid technologies

**Task 2: Analysis**

Electric Vehicle Readiness

- Develop a high level EV/ZEV Fleet Transition Plan for the FCRTA fleet. This analysis will be done concurrently with the other work completed in Task 2 to determine: An assessment of current operations and future needs; Current and future facilities for optimal placement of charging infrastructure; An assessment of charging infrastructure needs to support an electric fleet replacement, schedule to result in a 100 percent EV/ZEV fleet by 2040; A facilities and charging infrastructure phasing plan; An assessment of optimal timing and length of charging.
- Develop preliminary timeline, budgets, and funding plans for 100 percent electric transition. This analysis will produce a plan that will provide short and long-term recommendations for the procurements, capital

improvements, infrastructure and maintenance planning required to transition to a 100 percent EV/ZEV fleet.

- The analysis will produce a zero emission vehicle rollout plan for submittal to CARB as proposed the Innovative Clean Transit Regulation (ICT).

#### Transit Electric Vehicle Operational Analysis and Multi-Modal Evaluation

- Perform an analysis of FCRTA's existing service and system to create a profile of the system and its operating costs and needs. Evaluate existing data on transportation gaps completed by FCRTA in 2020, to identify areas for service expansion and related costs. Establish service design goals and objectives with a microgrid powered EV bus fleet, including productivity and coverage goals for the network, and needs outlined in the electric vehicle readiness task. The goal is to establish an overall vision or service concept plan given the challenges and opportunities in using a microgrid powered operation.
- Review operations of the existing fleet and service to assess strengths, opportunities, limitations, and challenges associated with the existing electric and non-electric vehicle bus fleet and service. The result of this analysis is a clear understanding of the operational and performance strengths and weaknesses of the existing transit system and contrasts and differing needs and capability of electric buses compared to gasoline fueled buses.
- Evaluate how a microgrid and all or partial EV/ZEV bus fleet can improve network efficiency through adjustments of run times, stop locations or times, given passenger activity, market demand, and origin-destination movements. Consider how phasing of an electric vehicle fleet impacts network efficiency and service. Identify the necessary funding. Identify routes to electrify in order of feasibility.
- Evaluate the feasibility of locating electric car share and bike share at the microgrid sites to provide multi-modal travel options for residents.
- Based on the above analysis, establish preliminary recommendations for how the FCRTA service network can increase its productivity, effectiveness, and appeal to new riders within a new electric powered fleet of buses (or partial fleet) and the appropriate phasing of EVs/ZEVs along routes.

Based on FCRTA, stakeholder, and community input, refine service concepts and develop optimal, design recommendation and forecasts to promote systemwide growth within the existing budget and related to any operational cost savings from using a microgrid powered bus fleet. Provide ridership forecasts and plan for fleet phasing to electric vehicles.

#### Data Collection and Needs Assessment

- Determine energy demand needs based on FCRTA current and future needs for EVs/ZEVs as well as community electric vehicle charging needs based on stakeholder and community input. Community needs may include personal electric vehicles and government vehicle fleets.
  - Demand assessment should take into account vehicle miles traveled, on-route charging potential, potential system expansion, and how the system could serve the community by providing public vehicle charging stations.

#### Structural and Infrastructure Site Assessment

- Review and evaluate various documents, drawings, building codes, and climate issues (such as wind) to provide a structural and infrastructure assessment of potential microgrid sites, at FCRTA owned parcels and other underutilized or vacant parcels (in coordination with local authorities). Propose modifications needed to support a distributed energy resource/microgrid including any infrastructure or technology. Analysis of sites should include:
  - Access
  - Electrical capacity and needed upgrades for interconnections.
  - Communications infrastructure for system monitoring and control.
  - Security and maintenance requirements
- Evaluate how a distributed energy resource/microgrid or other technology could operate on a site-by-site basis or aggregated basis and any constraints.
- Provide preliminary cost estimates for the required infrastructure modification.
- Provide cost estimates for mitigation of wildfire hazards.
- Identify potential sites to optimize the output of a microgrid system.

### Readiness Assessment

- Develop a readiness strategy for each site that identifies the systems and software necessary to implement a microgrid or other distributed energy resource capable of managing and optimizing distributed energy resources in both grid-connected and island configurations. Identify any utility and safety considerations that enable or prohibit operation.
- Review how a distributed energy resource can be leveraged and should be operated including dispatch strategy, economic considerations, and ability to supply full or partial energy load in grid-connected or island modes.
- Review how a distributed energy resource would interface with local utility energy system for reliable and resilient operations, including power storage for use by essential services and first responders during emergencies.

### Site Energy and Technology Assessment

- Perform an assessment of the potential distributed renewable energy generation rates for individual and aggregated candidate sites using industry standard models (from the U.S. Dept. of Energy, California Energy Commission, or other verified sources)
  - Assessment should include an evaluation of how the individual or connected sites can meet FCRTA and community needs.
  - Assessment should include potential energy generation for a year-long period, and potential hourly and monthly generation rates and output.
  - Develop the design load profile for each site for full occupancy.
- Assess the viability of energy storage at candidate sites and rationale for recommended locations. This assessment should be based on FCRTA's demand needs, community needs, and opportunities for energy storage.

### Financial Analysis

- Develop a cost/benefit assessment of capital, operations, and maintenance costs and other infrastructure modifications for the top two distributed energy resource technologies based on potential energy rates and estimates for cost in the structure and infrastructure site assessment and labor costs. Assessment should take into account FCRTA's tax-exempt status and potential ownership structures.
- Estimates of total costs should be presented in real and present values in dollars and dollars per kWh hour as useful for each site. Costs should include:
  - Major capital costs (including any necessary infrastructure for climate adaptation)
  - Lifecycle operations and maintenance costs
  - Payback scenarios and cost recovery based on financing and ownership options.
  - Rate impacts
  - Value to the community
  - Cost and value related to energy storage and energy market participation.
- Develop an estimate for operations and maintenance for the system lifetime including financial estimates for on-site maintenance, staff, training to develop microgrid maintenance skills, replacement, battery maintenance, and other annual maintenance.
- Select recommended technologies /proposed microgrid infrastructure and operations.
- Analyze options for grants, financing, incentives, and subsidies.
  - This includes an analysis of various financing structures including a public-private partnership or other long-term agreement and ownership models.
- Compare the present value of a microgrid to the present value of electric power over the same period.
- Assess potential for claiming renewable energy credits and carbon offsets for the expected annual power generated from a microgrid system and any commercial credit potential.
- Provide modeling background information.

### Review of Findings and Initial Recommendations

- Based on the previous task finding and community and stakeholder input, develop a ranking criteria for evaluating candidate sites, rank sites in priority order. Base data on a rough order of magnitude estimate of microgrid system size, capability based on site assumptions.



<b>Task Deliverables</b>
Memo on demand needs assessment
Memo and/or presentation reviewing site assessment
Memo and/or presentation presenting the financial analysis
Presentation of findings and initial recommendations

### **Task 3: Public Outreach**

#### Stakeholder Identification

At the onset of the study, FCRTA and the Consultant will develop a list of stakeholders to reach out to and gather initial feedback and discuss their desired involvement in the project. Some stakeholders may only be interested in interviews and draft deliverable review, while others may want to be part of the Project Advisory Committee and provide input throughout the feasibility study process. Some stakeholders may want an update on the study at a regularly scheduled organization meeting or gathering. FCRTA and the Consultant will tailor stakeholder involvement to the specific stakeholder. Stakeholders may include but not limited to; first responders, non-profit community-based organizations, social service organizations, local housing authorities, workforce development agencies, local Chambers of Commerce, business owners/employers, local resident associations, developers, utility companies, local school districts, Fresno Council of Governments, the cities of Fresno County, including the County of Fresno. A full potential list of stakeholders is provided in the "Project Stakeholders" section above.

#### Project Website/Digital Hub

An important element of community outreach is educating the public about new energy technology and the community benefit. All of the proposed outreach activities should include an education component so that the public has a clear understanding of how various energy options can provide a public benefit as well as any potential challenges. All outreach activities will also educate the public about how public transit operates in Fresno County.

Create and launch a multi-lingual project website/digital hub, to include project information (purpose and goals, scope overview, and schedule), infographics, captioned videos, maps, and graphics digestible to the public, deliverables ready for public consumption, and embedded links to access digital meetings. Analytics related to site and page views, method of viewing, viewer activity, etc. will be assessed regularly by the FCRTA and the Consultant and used to make decisions about engagement opportunities, advertising for the website, etc. The digital hub will include various engagement opportunities over the duration of the project. The digital community engagement process envisions up to one (1) long-form survey, up to five (5) mini-surveys, an ongoing photo/comment log, and ongoing discussion threads, and others as deemed appropriate by the Consultant Team and FCRTA. FCRTA anticipates utilizing the digital hub for public comment on the draft feasibility study.

The digital hub will include both English and Spanish versions and will be formatted to adhere to industry-accepted practices for maximizing accessibility for all users, including those with visual, auditory, and information processing impairments. Accessible tools can be used by people of varying abilities, age levels, education, and more. Strategies employed for the project website/digital hub must include clear and concise language, provide alternative text describing images, graphics, and maps, and accompany any videos or audio with transcription or subtitles.

*Note: To engage those who do not have access to a computer or internet, FCRTA and the consultant will work with local social service organization, public entities, community services districts, and other organizations to provide residents with educational project background materials and surveys to gain input. For those who do not have the technology to access the digital hub, project information, surveys and updates must be also be distributed through flyers, utility bills, local newspapers, and local newsletters. Further, as discussed below, we will hold popups to reach community members with and without access to the internet.*

#### Community Pop Up Events

Host a series of five to eight community pop-up events to engage the communities served by the FCRTA and the potential sites for the distributed energy resource/microgrid technology. These events will be designed to meet the community where they are already gathering and to engage in a more casual setting. FCRTA envisions that these events will occur at locations such as local markets, community centers, on transit buses, at local libraries, or other locations. In order to target outreach to disadvantaged communities, FCRTA and the Consultant will work with local social services organizations and municipalities to plan the events and notice the community. The events may during other events/and or meetings that the community regularly attends to attract more participation, such as local farmer’s markets.

These pop-up events will be educational and will provide an overview of microgrids and potential community benefits. The events introduce the project to the public and project stakeholders, define project parameters, inform the community of project opportunities and constraints and identify and solicit opinions from the community/stakeholders to help shape this plan. Feedback that will be sought from these workshops will include microgrid siting criteria, electric vehicle charging needs, transit needs, desired features to be included at a microgrid mobility hub. To facilitate engagement, interactive activities will be incorporated for the participants that get people moving, thinking, learning, and contributing insight to the project. For example, participants may be split into break-out groups with opportunities to design their own microgrid mobility hub.

To encourage participation in the digital hub, online surveys, and pop-up events, the consultant should devise a set of “rewards incentives” including gift cards and other prizes.

*Note: All pop-up events will be publicly noticed to ensure maximum attendance. All public notices will be in English and Spanish. Spanish translators and sign language interpreters (if requested) will be present at all workshops. For those unable to attend the in-person meetings for any reason, including a physical or mental disability, virtual participation options will be available.*

Alternatively, if the COVID-19 environment does not allow for in-person pop-up events, develop, prepare for, and execute a digital charette using Zoom or similar platform. The charette will also feature interactive exercises and small-group breakouts conducted digitally, such as live surveys, interactive route planning, and vision boarding. The Consultant Team will work with FCRTA and stakeholders to advertise the meetings as appropriate; access to the meetings will be provided via digital hub embed and a separate meeting link. A captioned recording of each session will be provided on the digital hub. The consultant should provide options for those who do not have internet access to attend a digital meeting.

<b>Task Deliverables</b>
Public Outreach Report summarizing public outreach efforts, participation and feedback received from the project website/digital hub (including the questions and responses from the mini surveys and long-form surveys) and Community Workshops

#### **Task 4: Advisory Committee Meetings**

Invite interested stakeholders to join an advisory committee for the feasibility study, consisting of, at minimum, representatives from the following entities:

- State entities
  - California Public Utilities Commission
  - California Energy Commission
  - California Air Resources Board
  - Caltrans
- Regional Government Agencies
  - Fresno Council of Governments
  - Fresno County
    - Fresno County Fire
  - San Joaquin Valley Air Pollution Control District

- Cities of Selma, Parlier, Huron, Kingsburg, Firebaugh, Mendota, Kerman, San Joaquin, Coalinga, Orange Cove, Reedley, Fowler, and Sanger
  - Including first responders in each of the communities
- Local Transit Providers: Clovis Transit and Fresno Area Express (FAX)
- MV Transportation (FCRTA's transit service provider)
- PG&E
- Non-profit and social service community organizations
  - Calstart
  - San Joaquin Valley Zero Emissions Bus Working Group
  - Valley Leap
  - Central California Legal Services
  - Self Help Enterprises
  - Fresno Housing Authority
  - Centro La Familia Advocacy Services
  - Fresno Regional Workforce Development Board
  - Leadership Council for Justice and Accountability
  - Inspiration Transportation
  - Fresno Metro Ministry
  - California Rural Legal Assistance, Inc
- Local School Districts
  - Fresno Unified School District
  - Fresno County Superintendent of Schools

It is anticipated that the consultant and FCRTA will facilitate a minimum of five advisory committee meetings with the advisory committee to guide the feasibility study from initiation to completion. One meeting will occur at project kick-off, three to present interim findings and gather input, and one to review and approve the report. Caltrans district staff will be included in the planning for the advisory committee meetings and will be invited to serve on the advisory committee. Meetings will be interactive and provide opportunities for input from all attendees. Meetings should be offered in person and digitally (depending on Covid-19 orders).

Task Deliverables
Meetings agendas for each advisory committee meeting
List of attendees and meeting minutes for each advisory committee meeting

## Task 5: Draft and Final Plan

### Develop Draft Feasibility Study

Based on the feedback from the community engagement, advisory committee, and analysis, a draft feasibility study report will be prepared to include all project components and aspects to date.

### FCRTA Review & Comment on Draft Study

FCRTA staff reviews and comments on draft report and discuss their findings, concerns, and recommendations with Consultant. Consultant to revise report based on FCRTA comments.

### Advisory Committee Meeting

Solicit feedback, respond to any questions and resolve any critical issues from the project advisory committee.

### Public Comment

Issue the draft report for review and comment by the public.

### Complete Final Feasibility Study

Revise the report based on comments from the advisory committee and the public. The revised report is a completed Final Feasibility Study Report. The Final Feasibility Study will include next steps for FCRTA to implement

the project. The implementation plan for the top-ranked site(s)/technology will include cost savings, potential funding sources, and financing options. The plan should be detailed to support capital planning and procurement.

The financial contribution of the grant program will be credited on the cover of the report.

<b>Task Deliverables</b>
Draft feasibility study report and implementation plan.
Draft feasibility study report
Written agency and public comments on draft report
Final feasibility study report

### **Task 6: Board Review/Approval**

Present Final Feasibility Study Report at the FCRTA Board meeting. Resolve any critical issues. Prepare next steps for implementation based on the study. Adopt Final FCRTA Report.

<b>Task Deliverables</b>
FCRTA Board Agenda
FCRTA presentation materials
FCRTA Board meeting minutes indicating board acceptance/approval of feasibility study.

# Appendix B

**Grant Fiscal Year** FY2021-2022

**Project Title** Fresno County Distributed Energy Resource Feasibility Study

**Organization** (legal name) Fresno Rural Transit Agency

Task #	Task Title	Estimated Grant Amount*	Estimated Local Cash Match*	Estimated Local In-Kind Match*	Estimated Total Project Cost*	FY 2021/22												FY 2022/23												FY 2023/24											
						A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	
01	Project Administration (no more than 5% of total Grant Award)	\$8,000	\$2,000	\$0	\$10,000					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
02	Consultant Procurement	\$1,000	\$2,000	\$0	\$3,000				X	X	X																														
1	Existing Conditions	\$18,000	\$10,000	\$0	\$28,000							X	X	X	X	X	X																								
2	Analysis	\$305,000	\$10,000	\$0	\$315,000							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
3	Public Outreach	\$35,000	\$15,000	\$0	\$50,000							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
4	Advisory Committee Meetings	\$11,000	\$10,000	\$0	\$21,000							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
5	Draft and Final Plan	\$20,000	\$5,000	\$0	\$25,000											X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
6	Board Review/Approval	\$1,500	\$2,000	\$0	\$3,500																															X	X				
<b>Totals</b>		<b>\$399,500</b>	<b>\$56,000</b>	<b>\$0</b>	<b>\$455,500</b>																																				

\* Use only whole dollars in the financial information fields. Dollar amounts must be rounded up/down and decimals should not be shown.

Does your agency plan to request reimbursement for indirect costs?  Yes  No If yes, what is the estimated indirect cost rate? \_\_\_\_\_

Does your agency plan to use the Tapered Match approach for invoicing purposes?  Yes  No