

Distributed Energy and Electrification Analysis

California Energy Commission Request for Proposals- RFP-24-801 Pre-Bid Conference

Date: October 24, 2024



- Welcoming and Housekeeping
- RFP Overview
- Questions and Answers
- Conclusion



- Workshop is being recorded.
- Request for proposal webpage: <u>RFP-24-801 Distributed</u> <u>Energy and Electrification Analysis</u>
- Virtual participation through Zoom
 - Raise your hand or use the Q&A feature
 - Telephone participants dial *9 to raise their hands
- Written questions to Commission Agreement Officer:

Phil Dyer, Phil.dyer@energy.ca.gov

Subject: RFP-24-801 - Distributed Energy and Electrification Analysis

Deadline: October 25, 2024 by 5:00 PM



RFP Overview



Support the CEC with a **buildout of the State's electric distribution grid model** to assess various electrification and distributed energy resource adoption scenarios (including AMI data and distribution assets, as available)



- **Support** the development of electrification policies and strategies that can provide greater grid reliability.
- **Guide** the development and implementation of electrification and load flexibility programs.
- Provide tools for improved and more accurate program targeting.
- **Identify** data gaps and future research needs to support grid planning.



- GridLAB-D is a power system simulation tool developed by US DOE
 Released by PPNL in 2008
- CEC/EPIC awarded \$6M to SLAC and Hitachi to add electrification scenarios and a user interface (2019-2023).
- The commercial-grade version, Arras Energy, was released by the Linux Foundation in 2023
- GLOW was developed in conjunction with Arras Energy as the frontend graphical user interface



- Distributed generation and storage simulations
- Hosting capacity analysis

- Tariff analysis
- Peak load management
- Grid resilience assessment





- Customer energy use data is collected under new CEC data collection authority (California Code of Regulations, Title 20, Section 1353)
- Covers three largest electric utilities (PG&E, SCE, SDG&E)
- Associated meter, account, and premise data
 - Address
 - Rate schedule and NAICS codes
 - EE, NEM and other program participation
- Electric interval meter data (AMI data) for PG&E, SCE, and SDG&E



- Task 1 Agreement Management
- Task 2 Examine Existing Data Sources
- Task 3 Develop Grid Models
- Task 4 Develop Load Models & Baseline Analysis
- Task 5 Develop a Cost and Revenue Impacts Methodology
- Task 6 Train Staff on Scenario Analysis
- Task 7 General Technical Support for Model Development



Sub-Tasks:

- 1. Kick-off Meeting
- 2. Prepare and Submit Invoices Monthly
- 3. Prepare and Submit Progress Reports Monthly



- 1. Examine all the current data sources required to build feeder and load models
- 2. Develop a list of data requirements to build feeder models
- 3. Examine input datasets for any potential gaps and missing records
- 4. Report findings from data auditing and proposed remedies in a Data Auditing Report
- 5. Convert ArcGIS datasets into CSV files or another format that is compatible with Arras Energy



- 1. Prepare CEC's IOU distribution system data (in ArcGIS format) for upload to Arras Energy. Utilize GLOW as the simulation interface
 - a. The contractor may build a unique model for each IOU or combine all three IOUs in a single model
- 2. Seek data resources for accurately modeling building panel capacity limitations in California

Task 4: Developing Load Models & Baseline Analysis

- 1. Create load models and load profiles for each distribution node associated with specific customer IDs
- 2. Combine existing data sets to successfully create feeder models for future analysis
- 3. Determine whether the built-in electrification scenarios in Arras Energy satisfy CEC's scenario development needs
- 4. Conduct initial baseline analysis to ensure feeder models are functioning properly. The analysis should be performed on all developed feeder models



- 1. Gather data from utility reports and CPUC proceedings related to distribution grid upgrade costs
- Develop a method to calculate the distribution upgrade or buildout cost impacts of electrification and DER by running 8760 load shapes provided by CEC staff
- 3. Develop a method to calculate the utility revenue impacts of electrification and DER by running projected 8760 load shapes under the relevant rate group
- 4. Integrate cost and revenue impact analysis to calculate the net cost of a proposed electrification scenario simulated in the grid model(s)



- 1. Develop training materials and determine an appropriate number of one hour training sessions for CEC staff to work independently
- 2. Help staff develop the capabilities to run new electrification and DER scenarios, including any fundamental concepts, scenario planning features, and how to update inputs for the baseline scenarios

Task 7: General Technical Support for Model Development

- 1. Assist CEC staff in incorporating newer distribution data Grid model updates as they become available and use the latest version of Arras Energy software
 - a. This task is in addition to the core tasks listed above and is subject to the availability of additional funding



- Bidders must meet all solicitation requirements.
- Private entities, non-profit organizations, and public sector entities that meet the solicitation requirements.
 - Private sector entities must agree to the Energy Commission's standard terms and conditions.
 - The University of California or the U.S. DOE National Laboratories must use either the standard or the pre-negotiated terms and conditions.
 - Public entities may participate as subcontractors if they cannot meet requirements or agree to the terms.
- All corporations, LLCs and LPs are required to register and be in good standing with the California Secretary of State.



Proposals Consists of two Sections

□ Section 1: Administrative Response

- Cover Letter
- Table of Contents
- Contractor Status Form
- Darfur Contracting Act Form
- Small Business Certification (If applicable)
- Completed Disabled Veteran Business Enterprise form
- Bidder Declaration form GSPD-05-105
- Contractor Certification Clauses
- TACPA Forms
- Iran Contracting Act Form
- CA Civil Rights Laws Certification

Section 2: Technical Proposal and Cost Proposal

- Approach to Tasks in Scope of Work
- Organizational Structure
- Relevant Experience and Qualifications
- Labor Hours by Personnel and Task
- Client References
- Key Personnel Resumes
- Previous Work Products
- Budget Forms



- Stage One: Administrative and Completeness Screening
- Stage Two: Technical and Cost Evaluation of Proposals
 - Must pass Technical Criteria for further evaluation.
 - The Maximum Points Available under this RFP are 100
 - Minimum Passing Score
 - For the technical Criteria 49 points (70%)
 - For the whole proposal 70 points (70%)

SCREENING CRITERIA FOR HANDLING OF COMMISSION (OR A THIRD PARTY) CONFIDENTIAL INFORMATION

- This solicitation anticipates that the Contractor may receive Confidential Information or Personal Information from the Energy Commission (or a third party) or be required to handle Confidential Information or Personal Information belonging to someone other than Contractor. Because of the need for security in handling this Confidential Information and Personal Information, the Energy Commission will screen applicants based on their existing security processes. Bidder's responses will be evaluated in Stage One Administrative and Completeness Screening. (Pages 19-20)
- Note: Attachment 8 Exhibit D Special Terms and Conditions for Consulting Services



Technical Criteria	Possible Points
Approach to the Tasks in the Scope of Work	40
Organizational Structure	15
Approach to Program Management	10
Client References	5
Total (Minimum Passing Score of 49)	70

Cost Criteria	Possible Points
Total Expected Labor Costs (Cost Points)	25
Cost Build-Up Justification (Cost Points)	5
Total (Minimum Passing Score of 70)	100

Disabled Veteran Business Enterprise (DVBE) Requirements

This RFP is **<u>NOT</u>** subject to a mandatory certified DVBE participation.

Bidders that both receive the minimum passing score and include DVBE participation in its Bid will receive the DVBE Incentive.



- The method of submission for this solicitation is the CEC Grant Solicitation System, available at: <u>https://gss.energy.ca.gov/</u>. This online tool allows applicants to submit their electronic documents to the CEC prior to the date and time specified in this solicitation.
- Application documents should meet formatting requirements, and page limits specified. See individual requirements for each attachment in Section III. of the solicitation manual (starts on page 13).

Deadline to Submit Proposals by 11:59 p.m. on November 18, 2024



ACTIVITY	ACTION DATE
RFP Release	October 14, 2024
Pre-Bid Conference *	October 24, 2024
Deadline for Written Questions by 5:00 p.m.	October 25, 2024
Distribute Questions/Answers and Addenda (if any) to RFP	November 8, 2024
Deadline to Submit Proposals by 11:59 p.m.	November 18, 2024
Notice of Proposed Award	The week of December 13, 2024
Commission Business Meeting	January 21, 2025
Contract Start Date	February 21, 2025
Contract Termination Date	February 21, 2028



- Please introduce yourself by stating your name and affiliation.
- Please follow up with your question in writing to ensure that it is captured properly.
- Our <u>official</u> response will be given in writing and we anticipate it will be posted on the funding opportunity Solicitations webpage in the week of December 13, 2024.
- Questions are Due by 5 PM October 25, 2024
- Submit written questions to Commission Agreement Officer:
 - Phil Dyer, <u>Phil.dyer@energy.ca.gov</u>
 - Subject: RFP-24-801 Distributed Energy and Electrification Analysis



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Thank You!

