



**RFP-25-803**

**March 12, 2026**

**Questions and Answers for March 04, 2026**

**Improvements to Modeling Climate Data in Demand  
Forecasting**

**The purpose of this document is to provide answers to questions for the above solicitation. The following answers are based on the California Energy Commission (CEC) staff's interpretation of the questions received.**

**General/Administrative**

**Q1:** What are examples of previous work products?

**A1:** **Previous work products related to the scope of work stated in the RFP.**

**Q2:** If awarded the contract, what is the timeline of when invoices will be processed and paid during the contract period.

**A2:** **The timeline for invoice can be found on page 12 of the solicitation manual. Additional information may be found in Attachment 8, Exhibit B, Section 1.F.**

**Q3:** I see a required breakdown of hours per task. Is there also a required breakdown across each year?

**A3:** **No, there is no breakdown by years. The breakdowns in the RFP are estimates and will be revised after the kickoff meeting.**

**Q4:** Within the budget sheet, an Expected Total Hours for Task was provided - if we are able to stay below the contract maximum, can we submit an RFP with additional hours included? And follow up: Does the Expected Total Hours for each task include subcontractor hours?

**A4:** **Yes, the bidder can submit additional hours. The expected total hour includes subcontractor hours.**

Q5: Are letters of support permitted? Who is eligible to provide support letters?

**A5: Yes. Letters of support are permitted but are not required**

Q6: Are there page limitations on written responses?

**A6: No, there is no page limitation.**

Q7: Will you make the presentation and attendee list for this meeting available to participants?

**A7: The presentation is available on the RFP-25-803 webpage. List of attendees can be requested by contacting the Commission Agreement Officer, Natalia Calderon via email to [Natalia.calderon@energy.ca.gov](mailto:Natalia.calderon@energy.ca.gov).**

Q8: I saw the information about businesses being in good standing CA, but how does this apply to universities? Are universities allowed to contract some of the work to universities that are out of state?

If we do, the university would be the prime but we are considering an out of state subaward. Is this allowed?

**A8: Please see the solicitation manual, section 1, Eligible Bidders section.**

Q9: Are prime contractors allowed to include a profit margin on this work? We noticed that attachment 07, tab "Category Budget" and tab "Indirect Rate & Profit" includes a note that reads "Profits (not allowed for grant recipients)"

**A9: For Contract Agreements Only: Contractors and subcontractors can include up to a maximum total of 10% profit, fees or markups on their own actual allowable expenses less any expenses further subcontracted to other entities (i.e., profit, fees and markups are not allowed on subcontractor expenses). For example, if a contractor has \$100,000 in actual allowable costs but has further subcontracted \$20,000 to another entity, then the contractor can only include up to 10% profit on \$80,000 (\$100,000 minus \$20,000). Additionally, contractors and subcontractors cannot charge profit on travel expenses as travel will only be reimbursed at state rates. See terms and conditions for more information on allowable costs.**

Q10: The title for Task 5 includes the phrase "(10% CONTINGENCY)" and the budget sheet lists 80 hours of total time expected for this task. Can CEC please elaborate what 10% contingency means? 80 hours does not represent 10% of the budgeted hours.

**A10: Ten percent contingency is allocated for tasks beyond the initial four, including additional analytical support, modeling assistance, and climate data interpretation as directed by the CAM. The estimate of 80 hours is preliminary, and addenda will be prepared as needed.**

Q11: Is cost share permitted/encouraged?

**A11: This RFP has no cost share requirement.**

Q12: Can you confirm if Canadian registered companies are eligible to bid on this RFP? Furthermore, can you confirm the in-person requirements? Our company and Staff are based in Canada and we want to know how often we'll need to travel/relocate to California to perform in-person work.

**A12: The Recipient / Prime / Contractor may use an out of state subcontractor, but if that subcontractor does intrastate business in CA, they must be licensed with the CA Secretary of State. You can get more information on [www.sos.ca.gov](http://www.sos.ca.gov).**

Q13: What is the exact requirement for the small business certification? For example, would a PDF printout of the webpage showing our certification profile suffice? There is no option to download a pdf of the certification.

**A13: Per the solicitation manual, section V, Small Business/Micro Business/Non-Small Business, Sub-section Preference, and sub section Certification:**

**Preference: Bidders who qualify as a State of California certified small business will receive five percent (5%) preference points based on the highest responsible bidder's total score, if the highest scored proposal is submitted by a business other than a certified small business. Bidders qualifying for this preference must submit a copy of their Small Business Certification and document their status in Attachment 1, Contractor Status Form.**

**Certification: A business must be formally certified by the Department of General Services, Office of Small Business and DVBE Services (OSDS), in order to receive the small/microbusiness preference.**

Q14: Can CEC staff outside of demand forecasting offices be considered for client references?

**A14: Yes, CEC staff can be identified as client references in Attachment 6.**

Q15: With respect to subcontractor participation, are there any limitations on the percentage of technical work that may be performed by subcontractors?

**A15: No.**

Q16: For DVBE – is it required to submit bid? Or is it required for additional scoring?

**A16: There is a 3% participation requirement and above 3% will merit DVBE incentive points. More information can be found on pages 24-29 of the solicitation manual.**

## Technical

Q17: The call mentions a specific methodology for downscaling the global models based on WRF. Is it mandatory to use the specific methodology? Could be used ML-based solutions for the downscaling?

**A17: CEC seeks to leverage the existing downscaled WRF output from Cal-Adapt and translate it into the forecasting inputs.**

Q18: Is there a site where we can start reviewing the structural and methodological aspects of CEC models? (as required in Task 3's activities).

**A18: Reference documents, including links to consultant reports and the CEC's Energy Demand Forecast, are included on pages 4-5 of the solicitation manual. Additional documentation of CEC forecasting models is available in the CEC Planning Library, available at <https://www.energy.ca.gov/data-reports/california-energy-planning-library> .**

Q19: The RFP describes a workflow centered on WRF-based dynamical downscaling. The morphing method is an alternative statistical approach, well-established in the peer-reviewed literature, that translates CMIP6 projections into localized hourly weather data by shifting and scaling historical observations. Would CEC find value in a contractor providing morphing-based outputs alongside WRF results, as an independent analytical reference, for example to cross-check HDD/CDD projections or support the stochastic dataset development in Task 3?

**A19: CEC expects the contractor to use the currently available downscaled WRF outputs. Exploring alternative analytical approaches may be considered based on the CEC's forecasting needs.**

Q20: Are there examples of work you're looking for that would be acceptable to meet quals? Do they have to be modeling that that has been used for utilities?

**A20: Examples of work include documentation that demonstrates the bidder's capabilities to complete the technical work of the contract. It may be reports, experience doing climate data analysis, forecasting, reliability assessments, and similar work. It is not required to be utility modeling.**

Q21: With respect to deliverables from Task 3 ("Climate-impacted supply and demand model inputs"), can the work only focus on climate-impacted supply modeling? Or does it need to be both?

**A21: The CEC will work with the contract to ensure that the deliverables, including model inputs, can be used in both demand and supply models.**

Q22 - How do you expect behind the meter solar to be treated? Are you aiming to project load or net load?

**A22: Both are relevant to CEC's forecasting work. CEC has internal models for adoption and generation of behind the meter resources.**

Q23: Could you please clarify what you'd like to see regarding accounting for wildfires, given that wildfire smoke is not part of the CalAdapt data?

**A23: The wildfire is an area CEC wants to investigate as it is a system reliability concern. The CEC will work with the contractor to identify other data sources to address wildfire impacts.**

Q24: Which contractor(s) provided services to the CEC for the prior GCM-based demand analysis work?

**A24: The CEC has worked with Eagle Rock Analytics and Lumen Energy Strategy to support climate data impacts on the demand forecast.**

Q25: So the goal is to use the new WRF data to brief DAWG and decision making based on the modeling? Would plan be part of the deliverables?

**A25: Presenting forecasting inputs and assumptions, including climate data work, at DAWG and to decision makers is part of the CEC's forecasting process. CEC staff will provide guidance to the contractor in advance of any presentations.**

Q26: Will CEC make the model using the model data developed available to the selected vendor?

**A26: Yes, CEC will make the models available to the contractor.**

Q27: Can you clarify whether the contractor is expected to provide their own computing system infrastructure for processing the climate data base and generating stochastic database or if the CEC will provide access to any internal resources such as cloud environments or HPC system?

**A27: CEC will not provide computational resources such as cloud environments and HPC systems.**

Q28: Can the CEC clarify whether cloud computing or high-performance computing resources are expected to be provided by the contractor, or if any state-supported infrastructure will be available?

**A28: Please see response to question #27**

Q29: Will we have access to the datasets we need to analyze? What is the CEC preferred format for the processed data files? Is there a CEC preferred computing platform that we should use and if so can we have access to it?

**A29: CEC will provide the necessary datasets for analysis. The preferred data format is CSV and when necessary xarray, and netcdf.**

Q30: What CEC models are currently using the weather/climate data that this contract will update?

**A30: Weather/climate data are used in the annual consumption and hourly load models.**

Q31: When were those models last updated with climate data? And what is the timeline for the next update? In other words, what is the schedule for contractor support and what are the deadlines for the support needed?

**A31: The CEC presented the current climate data input methodology during the 2024 IEPR forecast cycle. The CEC will work with the contract to evaluate opportunities for updates to be included in the 2027 IEPR forecast, which will be completed during the 2027 calendar year.**

Q32: Is there an existing model for predicting hydro power outputs under different climate scenarios? Does it use snow water equivalent or other variables from CalAdapt?

**A32: CEC is actively investigating this topic to take advantage of newly available climate model outputs. To date, only a limited number of studies within the CEC have explored these data, and those efforts have not yet enabled the incorporation of GCM output into electric system planning models. This capability is essential for meeting statutory requirements to assess system reliability.**

Q33: Are there existing models to predict solar PV output under different climate scenarios as a function of temperature?

**A33: CEC is working on a model which predicts PV output under various climate scenarios. One version of the model includes interactive effects for irradiance and temperature. However, the model has not yet been finalized and used for forecasting yet. There are tools like NLR's PVWatts which can predict electric generation under different climate scenarios, available at <https://pvwatts.nlr.gov/>.**

Q34: If any of the data sets require a license, would the contractor be able to access the data through the CEC?

**A34: CEC will provide the necessary datasets for analysis.**

Q35: Does CEC expect examples of end to end data pipelines (ingestion, processing, QA/QC), or is analytical use sufficient? For the technical criteria, is CEC prioritizing depth in analytics and data currently used by CEC, or broader coverage across tools, datasets, and workflows?

**A35: Examples of work should include both end-to-end data pipelines and analytical use as needed to demonstrate the bidder's capabilities.**

Q36: Should CEC assume that most development and analysis will occur within CEC managed environments, or is off-platform development by the contractor acceptable with results delivered back to CEC? Is CEC expecting contractors to directly modify existing scripts/models, or to deliver standalone analyses and datasets for integration by CEC staff?

**A36: At the request of CEC, the contractor shall provide models used to perform work for this contract, including source code, and outputs. The contractor will evaluate existing scripts/models and integrate inputs and model updates with the CEC system.**

Q37: For Task 3 (Climate-impacted supply and demand model inputs), could the CEC clarify whether contractors are expected to modify existing demand forecasting models directly, or primarily develop improved climate input datasets that will later be integrated by CEC staff?

**A37: Please see response to question #36.**

Q38: Under Task 4, there is a request to draft report. Would this report become a public report requiring accessibility and communications team review?

**A38: Reports will be accessible to the public. The report must meet CEC guidelines for publication.**

Q39: Are there expectations for open-source code or data transparency for deliverables produced under this contract?

**A39: Please see response to question #38.**

Q40: Under Task 2, is the contractor expected to utilize specific climate data sources (e.g., WRF, LOCA2-Hybrid) exclusively, or may alternative validated downscaled datasets be proposed if they enhance forecast accuracy?

**A40: The priority is to use the WRF and LOCA2-Hybrid datasets. CEC may consider using alternative datasets if a use case is identified.**

Q41: For Task 3, could the CEC clarify the expected level of stochastic dataset development? Is the intent to produce fully operational model-ready datasets, or methodological frameworks with supporting code and documentation?

**A41: The contractor will support CEC staff in producing the fully operational stochastic datasets, including the code and supporting documentation.**

Q42: Regarding stakeholder engagement (Task 4), does the CEC anticipate primarily technical audiences (e.g., DAWG, IEPR workshops), or broader public-facing presentations requiring non-technical materials?

**A42: CEC expects to have the contractor present primarily at DAWG and IEPR workshops.**

Q43: For the hourly climate data package deliverable (Task 2), are there specific formatting, software compatibility, or database architecture requirements beyond those outlined in the RFP?

- A43: The contractor is expected to use the outlined formatting, software requirements, and database architecture. CEC staff will discuss any additional needs with the contractor as the deliverables are developed.**
- Q44: Can the CEC confirm whether existing forecast model code and historical datasets will be made available to the selected contractor at project initiation?
- A44: CEC will provide historical datasets, Cal-Adapt datasets, and existing forecast model codes to the contractor.**
- Q45: Could the CEC clarify what current climate and demand datasets are already available (e.g., existing Cal-Adapt datasets, downscaled climate projections, and historical demand data), and whether these datasets will be provided to the selected contractor at the start of the project?
- A45: Please see response to question #44.**
- Q46: The RFP references multiple climate variables such as heating and cooling degree days, wind speed, solar irradiance, and cloud cover. Are there priority variables that the CEC considers most critical for improving demand forecasting accuracy?
- A46: The CEC will work with the contractor to evaluate and identify which of the above variables are most appropriate in the development of the deliverables under the contract, based on modeling requirements.**
- Q47: Will the selected contractor have access to historical electricity and gas demand datasets used in previous Integrated Energy Policy Report (IEPR) analyses?
- A47: CEC will provide datasets as needed to complete the contract work.**
- Q48: Does the CEC anticipate that contractors will need to develop new methodologies to account for emerging climate risks (e.g., extreme heat events, wildfire impacts, or water availability constraints), or should proposals focus on improving existing modeling frameworks?
- A48: The scope of work includes making improvements to the CEC's current uses of climate data in the demand forecast, as well as developing ways to incorporate climate data in forecasting models that do not currently use climate data.**
- Q49: For the stochastic dataset development referenced in Task 3, does the CEC have preferred statistical frameworks or modeling approaches currently used in their forecasting workflow?
- A49: The stochastic dataset development should support current modeling approaches. For more information and documentation on current forecast models, see the CEC Planning Library: <https://www.energy.ca.gov/data-reports/california-energy-planning-library/forecasts-and-system-planning/demand-side-3> .**

Q50: For Task 4 workshops and stakeholder support, does the CEC anticipate that the contractor will facilitate discussions on modeling methodology or primarily present technical findings and recommendations?

**A50: The contractor may be asked to present modeling methodology, findings, and recommendations. CEC will facilitate discussion and the contractor may be asked to respond to stakeholder questions.**

Q51: Could the CEC clarify how the deliverables from this contract are expected to support future IEPR cycles or other state energy planning initiatives?

**A51: The CEC uses climate data inputs in demand forecasting models in each IEPR cycle, and the improvements made under this contract will support the development of using climate data in future IEPR cycles. The IEPR forecast is used for planning in CEC, CPUC, and CAISO proceedings and processes, as outlined in the Single Forecast Set Agreement, available at <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report-iepr/2025-integrated-energy-policy-report> .**