



**CALIFORNIA
ENERGY COMMISSION**



**California Energy Commission
May 31, 2023 Business Meeting
Backup Materials for Agenda Item No 03b:
Electric Power Research Institute, Inc.**

The following backup materials for the above-referenced agenda item are available in this PDF packet as listed below:

1. Proposed Resolution
2. Contract Request Form
3. Scope of Work

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: Electric Power Research Institute, Inc.

RESOLVED, that the State Energy Resources Conservation and Development Commission (CEC) adopts the staff CEQA findings contained in the Agreement or Amendment Request Form (as applicable); and

RESOLVED, that the CEC approves Agreement 800-22-008 with Electric Power Research Institute, Inc. for up to \$1,500,000, with \$500,000 currently available. Electric Power Research Institute, Inc. will support CEC's evaluation of different pathways for achieving California's clean energy goals as established in Senate Bill (SB) 100 to improve and expand analyses to study the reliability of different future energy scenarios; and

FURTHER BE IT RESOLVED, that the Executive Director or their designee shall execute the same on behalf of the CEC.

CERTIFICATION

The undersigned Secretariat to the CEC does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the CEC held on May 31, 2023.

AYE:

NAY:

ABSENT:

ABSTAIN:

Dated:

Liza Lopez
Secretariat



CONTRACT REQUEST FORM (CRF)

A. New Agreement Number

IMPORTANT: New Agreement # to be completed by Contracts, Grants, and Loans Office.

New Agreement Number: 800-22-008

B. Division Information

1. Division Name: Energy Assessments
2. Agreement Manager: Hannah Craig
3. MS-20
4. Phone Number: 916-891-8267

C. Contractor's Information

1. Contractor's Legal Name: Electric Power Research Institute, Inc.
2. Federal ID Number: 23-7175375

D. Title of Project

Title of project: SB 100 Technical Support

E. Term and Amount

1. Start Date: June 30, 2023
2. End Date: June 30, 2025
3. Amount: \$ 500,000

F. Business Meeting Information

1. Operational agreement to be approved by Executive Director?
2. Are the ARFVTP agreements \$75K and under delegated to Executive Director?
3. The Proposed Business Meeting Date: **May 31, 2023**
4. Consent or Discussion? **Consent**
5. Business Meeting Presenter Name: Hannah Craig
6. Time Needed for Business Meeting: 0 minutes.
7. The email subscription topic is: Energy Policy (Integrated Energy Policy Report)

Agenda Item Subject and Description:

Proposed resolution approving agreement 800-22-008 with Electric Power Research Institute, Inc. for up to \$1,500,000, with \$500,000 currently available. Electric Power Research Institute, Inc. will support CEC's evaluation of different pathways for achieving California's clean energy goals as established in Senate Bill 100 to improve and expand analyses to study the reliability of different future energy scenarios.

G. California Environmental Quality Act (CEQA) Compliance

1. Is Agreement considered a "Project" under CEQA?

No.

If yes, skip to question 2.

If no, complete the following (PRC 21065 and 14 CCR 15378) and explain why Agreement is not considered a "Project":



Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because: the work in this contract is providing technical expertise to the Energy Assessments Division, which involves forecasting and analysis and doesn't change the environment.

2. If Agreement is considered a "Project" under CEQA answer the following questions.

a) Agreement **IS** exempt?

N/A

Statutory Exemption?

N/A

If yes, list PRC and/or CCR section number(s) and separate each with a comma. If no, enter "None" and go to the next question.

PRC section number: None

CCR section number: None

Categorical Exemption?

N/A

If yes, list CCR section number(s) and separate each with a comma. If no, enter "None" and go to the next question.

CCR section number: None

Common Sense Exemption? 14 CCR 15061 (b) (3)

N/A

If yes, explain reason why Agreement is exempt under the above section. If no, enter "Not applicable" and go to the next section.

Not applicable

b) Agreement **IS NOT** exempt.

IMPORTANT: consult with the legal office to determine next steps.

N/A

If yes, answer yes or no to all that applies. If no, list all as "no" and "None" as "yes".

| Additional Documents | Applies |
|--|---------|
| Initial Study | No |
| Negative Declaration | No |
| Mitigated Negative Declaration | No |
| Environmental Impact Report | No |
| Statement of Overriding Considerations | No |
| None | No |

H. Subcontractors

List all Subcontractors listed in the Budget (s). Insert additional rows if needed. If no subcontractors to report, enter "No subcontractors to report" and "0" to funds. **Delete** any unused rows from the table.



| Subcontractor Legal Company Name | Budget |
|----------------------------------|------------|
| EPRI International, Inc | \$ 20, 357 |

I. Key Partners

List all key partner(s). Insert additional rows if needed. If no key partners to report, enter "No key partners to report." **Delete** any unused rows from the table.

| Key Partner Legal Company Name |
|--------------------------------|
| No key partners to report |

J. Budget Information

Include all budget information. Insert additional rows if needed. If no budget information to report, enter "N/A" for "Not Applicable" and "0" to Amount. **Delete** any unused rows from the table.

| Funding Source | Funding Year of Appropriation | Budget List Number | Amount |
|----------------|-------------------------------|--------------------|-----------|
| ERPA | 2021/2022 | 800.128 | \$500,000 |

TOTAL Amount: \$500,000

R&D Program Area: Not applicable.

Explanation for "Other" selection: Not applicable.

Reimbursement Contract #: Not applicable.

Federal Agreement #: Not applicable.

K. Contractor's Contact Information

1. Contractor's Administrator/Officer

Name: Nancy Martin

Address: Electric Power Research Institute, Inc.

942 Corridor Park Blvd.

City, State, Zip: Knoxville, TN 37932

Phone: (865) 218-5937

E-Mail: nmartin@epri.com

2. Contractor's Project Manager

Name: Phillip de Mello

Address: Electric Power Research Institute, Inc.

3420 Hillview Avenue

City, State, Zip: Palo Alto, CA 94304



Phone: (704) 595-2521

E-Mail: pdemello@epri.com

L. Selection Process Used

There are three types of selection process. List the one used for this CRF.

| Selection Process | Additional Information |
|----------------------------|-------------------------|
| Competitive Solicitation # | RFP-22-805, # of bids 8 |

M. Contractor Entity Type

| Contractor Entity Type | Yes or No? |
|--|------------|
| Private Company (<i>including non-profits</i>) | Yes |

N. Is Contractor a certified Small Business (SB), Micro Business (MB) or Disabled Veterans Business Enterprise (DVBE)?

The contractor is a certified: No.

O. Civil Service Considerations

- Not Applicable (Agreement is with a CA State Entity or a membership/co-sponsorship)? No.
- Public Resources Code 25620, et seq., authorizes the Commission to contract for the subject work. (PIER): No.
- The Services Contracted: Yes.

If no, go to the next question. If yes, which of the following applies to the contract? More than one can apply, list each answer choice, and separate them with a comma:

- are not available within civil service,
- cannot be performed satisfactorily by civil service employee, and
- are of such a highly specialized or technical nature that the expert knowledge, expertise, and ability are not available through the civil service system.

The following applies to the contract “are of such a highly specialized or technical nature that the expert knowledge, expertise, and ability are not available through the civil service system”.

- The Services are of such an urgent, temporary, or occasional nature that the delay to implement under civil service would frustrate their very purpose? Yes.

Justification:

These services are by their very nature “urgent” and of such an “occasional nature” that it would not be feasible to implement them under civil service. This type of expertise is not readily available through civil service. This technical support contract provides the necessary specialized expertise and technical support to complement staff’s current analytic capabilities. It also fills in highly technical and specialized knowledge gaps that will be needed to quickly and accurately assess California’s ever changing and highly integrated energy systems.



P. Payment Method

1. Is the payment method Reimbursement, Advanced Payment, or Other?

“Reimbursement”.

If Other, explain:

If Reimbursement, is it in arrears based on Itemized Monthly, Itemized Quarterly, Flat Rate, or One-time?

“Itemized Monthly”.

Q. Retention

Is Agreement subject to retention? No.

If Yes, Will retention be released prior to Agreement termination? N/A.

R. Justification of Rates

The rates are similar to the rates for this company in a previous contact.

S. Disabled Veteran Business Enterprise Program (DVBE)

Provide requested additional information.

1. Exempt (Interagency/Other Government Entity): Yes.

2. Meets DVBE Requirements DVBE: No.

Amount: \$0; DVBE %: 0%

3. Is the Contractor Certified DVBE or Subcontracting with a DVBE? If subcontracting with a DVBE, provide the name of the DVBE company. If none applies, enter “Not Applicable”.
Not applicable.

4. Contractor selected through CMAS or MSA with no DVBE participation: Not applicable.

5. Requesting DVBE Exemption (attach CEC 95): Yes.

T. Miscellaneous Agreement Information

1. Will there be Work Authorizations? No.

2. Is the contractor providing confidential information? No.

3. Is the contractor going to purchase equipment? No.

4. What is the check frequency of the progress reports? Monthly, Quarterly, or Other? If Other, please provide explanation.
Monthly.

5. Will a final report be required? Yes.

6. Is the Agreement, with amendments, longer than three years? If yes, why?
No.

U. The following items should be attached to this CRF (as applicable)

List all items that should be attached to this CRF by entering “Yes” or “No”

| Item Number | Item Name | Attached |
|-------------|-----------------------------------|----------|
| 1 | Exhibit A, Scope of Work/Schedule | Yes |
| 2 | Exhibit B, Budget Detail | Yes |



STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION

Contract Request Form
CEC-94 (Revised 04/2023)

| Item Number | Item Name | Attached |
|-------------|--|----------|
| 3 | DGS-GSPD-09-007, NCB Request | N/A |
| 4 | CEC 95, DVBE Exemption Request | Yes |
| 5 | Awardee CEQA Documentation | No |
| 6 | Resumes | N/A |
| 7 | CEC 105, Questionnaire for Identifying Conflicts | Yes |

Approved By

Individuals who approve this form must enter their full name and approval date in the MS Word version.

Agreement Manager: Hannah Craig

Approval Date: 4/27/2023

Office Manager: David Erne

Approval Date: 4/27/2023

Deputy Director: Aleecia Gutierrez

Approval Date: 4/28/2023

Exhibit A

SCOPE OF WORK

TASK LIST

| Task # | Task Name |
|---------------|--------------------------|
| 1 | Agreement Management |
| 2 | SB 100 Technical Support |

ACRONYMS/GLOSSARY

Specific acronyms and terms used throughout this scope of work are defined as follows:

| Acronym | Definition |
|----------------|--|
| CAISO | California Independent System Operator |
| CAM | Commission Agreement Manager |
| CEC | California Energy Commission |
| DER | Distributed Energy Resource |
| EAD | Energy Assessments Division |
| PM | Project Manager |
| SB 100 | Senate Bill 100 – The 100 Percent Clean Energy Act of 2018 |
| TACPA | Target Area Contract Preference Act |

BACKGROUND/PROBLEM STATEMENT

The 100 Percent Clean Energy Act of 2018 (Senate Bill 100, De Leon, Chapter 312, Statutes of 2018) requires the California Energy Commission (CEC), California Public Utilities Commission, and the California Air Resources Board to assess various pathways to achieve the Act's targets and provide a report to the legislature every four years. The first report, published March 2021, evaluated scenarios but did not evaluate the reliability of those scenarios. The report recommended that the next report include a comprehensive reliability assessment. This requires developing a modeling approach to evaluate whether projected portfolios meet system reliability requirements.

The EAD of the CEC leads the modeling and analysis for the SB100 reports. As such, EAD is responsible for developing the modeling approach for the next SB100 report. The approach will need to evaluate and compare different portfolios of resources to identify the extent to which each provides for electric system reliability. This analysis will require the development of an innovative new modeling approach to fulfill the requirements of SB 100 (Senate Bill 100). EAD is requiring support for this work from a consultant team with expertise in developing this type of analysis.

FORMAT/REPORTING REQUIREMENTS

Deliverables/Reports

When creating reports, the Contractor shall use and follow, unless otherwise instructed in writing by the Commission Agreement Manager (CAM), the latest version of the Consultant Reports Style Manual published on the Energy Commission's web site:

http://www.energy.ca.gov/contracts/consultant_reports/index.html

Each final deliverable shall be delivered as one original, reproducible, 8 ½" by 11", camera-ready master in black ink. Illustrations and graphs shall be sized to fit an 8 ½" by 11" page and readable if printed in black and white.

Electronic File Format

The Contractor shall deliver an electronic copy (CD ROM or memory stick or as otherwise specified by the CAM) of the full text in a compatible version of Microsoft Word (.doc).

The following describes the accepted formats of electronic data and documents provided to the Energy Commission as contract deliverables and establishes the computer platforms, operating systems and software versions that will be required to review and approve all software deliverables.

- Data sets shall be in Microsoft (MS) Access or MS Excel file format.
- PC-based text documents shall be in MS Word file format.
- Documents intended for public distribution shall be in PDF file format, with the native file format provided as well.
- Project management documents shall be in MS Project file format.

Software Application Development

If this scope of work includes any software application development, including but not limited to databases, websites, models, or modeling tools, contractor shall utilize the following standard Application Architecture components in compatible versions:

- Microsoft ASP.NET framework (version 3.5 and up) Recommend 4.0
- Microsoft Internet Information Services (IIS), (version 6 and up) Recommend 7.5
- Visual Studio.NET (version 2008 and up) Recommend 2010
- C# Programming Language with Presentation (UI), Business Object and Data Layers
- SQL (Structured Query Language)
- Microsoft SQL Server 2008, Stored Procedures Recommend 2008 R2
- Microsoft SQL Reporting Services Recommend 2008 R2
- XML (external interfaces)

Any exceptions to the Software Application Development requirements above must be approved in writing by the Energy Commission Information Technology Services Branch.

TASK 1- AGREEMENT MANAGEMENT

Task 1.1 Kick-off Meeting

The goal of this task is to establish the lines of communication and procedures for implementing this Agreement.

The Contractor shall:

- Attend a “kick-off” meeting with the CAM, the Contracts Officer, and a representative of the Accounting Office. The meeting will be held via Zoom or teleconference. The Contractor shall include their Project Manager, Contracts Administrator, Accounting Officer, and others designated by the CAM in this meeting. The administrative and technical aspects of this Agreement will be discussed at the meeting.
- Arrange the meeting including scheduling the date and time.
- Provide a draft agenda to the CAM for review.
- Provide a final agenda to all potential meeting participants prior to the kick-off meeting.

The CAM shall:

- Review and approve the draft agenda from the contractor prior to the kick-off meeting.
- Coordinate with all relevant CEC staff to participate in the kickoff meeting.

Deliverables:

- Draft and Final Agendas
- Summary of the kickoff to be included in the monthly progress report

Task 1.2 Invoices

The Contractor shall:

- Prepare invoices for all reimbursable expenses incurred performing work under this Agreement in compliance with the Exhibit B of the Terms and Conditions of the Agreement. Invoices shall be submitted with the same frequency as progress reports (task 1.4). Invoices must be submitted to the CEC’s Accounting Office.

Deliverables:

- Monthly invoice (to be included with monthly progress reports)

Task 1.3 Manage Subcontractors

The goal of this task is to ensure quality products, to enforce Subcontractor Agreement provisions, and in the event of failure of the Subcontractor to satisfactorily perform services, recommend solutions to resolve the problem.

The Contractor shall:

- Manage and coordinate Subcontractor activities. The Contractor is responsible for the quality of all Subcontractor work and the CEC will assign all work to the Contractor. If the Contractor decides to add new Subcontractors, they shall 1) comply with the Terms and Conditions of the Agreement, and 2) notify the CAM who will follow the CEC’s process for adding or replacing Subcontractors.

Task 1.4 Progress Reports

The goal of this task is to periodically verify that satisfactory and continued progress is made towards achieving the objectives of this Agreement.

The Contractor shall:

- Prepare progress reports monthly. The reports should summarize all Agreement activities conducted by the Contractor team for the reporting period. Any interim reports or products produced during the period should be included as part of the monthly progress report. The report should provide a graph of expenditures to date and a projection for subsequent months of the contract period. The report should include an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Each progress report is due within 15 calendar days after the end of the reporting period. The CAM will provide the format for the progress reports.

Deliverables:

- Monthly Progress Reports (including monthly invoices)

TECHNICAL TASKS

Task 2 - Technical Support

The goal of this task is to provide technical expertise to support EAD in the development of an approach to evaluate resource portfolios to meet SB 100 goals and other related electricity policy goals. The CEC CAM will prioritize work performed by the Contractor within this Task.

The Contractor shall:

- **Modeling Strategy:** Provide broad support to improve modeling approaches to address multiple end uses (e.g., mid-term and long-term SB 100 reliability analysis and SB 423 analysis), considering the need for production cost modeling and capacity expansion modeling. Support could include, but is not limited to, recommending models or model enhancements to increase analytical capabilities, optimizing existing or future models, developing tools to analyze data inputs and results, identifying appropriate granularity of modeling, and optimizing approaches. Support could also include creating approaches to integrate multiple assessments into a cohesive analytical strategy to support the 2025 SB 100 Report, including production cost modeling, capacity expansion modeling, land use screens, distributed energy resources, and social costs and non-energy benefits.
- **Data Inputs and Assumptions Improvements:** Support may include, but is not limited to, identifying or evaluating inputs and assumptions, gathering data on relevant system characteristics (e.g., power plants, transmission systems, fuel supplies, and system operations) and conducting evaluations to support improvements in assumptions. This may also include providing insight on state policies, utility plans, and trends that impact electricity supply and demand throughout the Western Electricity Coordinating Council (WECC) area and how modeling can account for WECC resources and trends.
- **Model Validation:** Guide development of approaches to validate model inputs, assumptions and results, including validation metrics such as reasonable confidence levels.
- **Modeling Surge Capacity:** While it is the intent for CEC staff to conduct modeling, there are times when CEC may require additional modeling support due to the nature of the modeling or the volume of modeling necessary. Support may be needed to run production cost models, capacity expansion models, or other models as required to supplement or compliment CEC staff efforts.
- **Documentation:** Provide support in developing modeling documentation to capture modeling structure, inputs, assumptions, and results. Documentation may be required for different audiences, including CEC staff and public stakeholders.

- Produce the Monthly Modeling Update Reports which shall include all data, documents, models, tools, results, and materials collected and produced in this task, as prioritized by the CEC CAM.

Deliverables:

- Monthly Modeling Update Reports

SCHEDULE OF DELIVERABLES AND DUE DATES

| Task Number | Deliverable | Due Date |
|--------------------|-------------------------------------|-----------------|
| 1 | Draft and Final Agendas | |
| 1 | Monthly Progress Report and Invoice | Monthly |
| 2 | Monthly Modeling Update Reports | Monthly |

Memorandum

**For Item 3. b.
May 31, 2023 Business Meeting**

To: Chair Hochschild
Vice Chair Gunda
Commissioners Gallardo, McAllister, and Monahan

Date: May 12, 2023

From: Raj K. Dixit, Attorney III
Chief Counsel's Office
California Energy Commission

Subject: Proposed California Environmental Quality Act Compliance

At the May 31, 2023, Energy Commission (CEC) Business Meeting, staff from the CEC's Energy Research and Development Division plan to propose approval of an agreement (No. 800-22-008) with the Electric Power Research Institute (EPRI) in the amount of up to \$1,500,000, with \$500,000 currently available.

For purposes of complying with the California Environmental Quality Act ("CEQA," Public Resources Code § 21000 et seq.), I recommend the CEC find that the proposed agreement is not a project under CEQA. The proposed agreement would involve EPRI performing modeling and analysis of various resource portfolios to evaluate their reliability requirements, in consideration of the need to comply with The 100 Percent Clean Energy Act of 2018 (Senate Bill 100, De Leon, Chapter 312, Statutes of 2018).

These activities, by their very nature, will not cause any direct physical changes to the environment, nor will they result in any reasonably foreseeable indirect physical changes to the environment. Therefore, Agreement No. 800-22-008 would not be a project under CEQA for the purposes of Public Resources Code section 21065.