



**California Energy Commission
May 13, 2026 Business Meeting**

**Backup Materials for National Technology & Engineering Solutions of Sandia,
LLC (Sandia National Laboratories)**

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

1. Proposed Resolution (attached below).
2. Grant Amendment Request Form
3. Scope of Work

CALIFORNIA ENERGY COMMISSION

PROPOSED RESOLUTION: National Technology & Engineering Solutions of Sandia, LLC (Sandia National Laboratories)

RESOLUTION NO: 26-0513-XX

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 an amendment to agreement LDS-23-001 with Sandia National Laboratories to increase total funding from \$2,000,000 to \$2,900,000, modify the Scope of Work. The additional funds will support added scope for Sandia National Laboratories to provide technical expertise on the various CEC-funded Long Duration Energy Storage (LDES) deployment projects; and

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

APPROVED AND ADOPTED this 13th day of May 2026, by the following vote:

AYE:

NAY:

ABSENT:

ABSTAIN:

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 approved and adopted by affirmative vote of the CEC at a meeting held on May 13, 2026.

Kim Todd
Secretariat



STATE OF CALIFORNIA

GRANT AMENDMENT REQUEST FORM (GARF)

CEC-277 (Revised 01/2026)

CALIFORNIA ENERGY COMMISSION

Original Agreement # LDS-23-001 Amendment # 1

Division	Agreement Manager:	MS-	Phone
ERDD	Caitlin Planchard		

Recipient's Legal Name
National Technology & Engineering Solutions of Sandia, LLC

Revisions: (check all that apply)	Additional Requirements
<input checked="" type="checkbox"/> Term Extension New End Date: 1/7/2030	Include revised schedule and complete items A through G below (as applicable).
<input checked="" type="checkbox"/> Budget Augmentation Amendment Amount: \$ 900,000	Include revised budget and complete items A through G below (as applicable)
<input type="checkbox"/> Budget Reallocation	Include revised budget and complete items A through G below (as applicable)
<input checked="" type="checkbox"/> Scope of Work Revision	Include revised scope of work and complete items A through G below (as applicable)
<input type="checkbox"/> Change in Project Location or Demonstration Site	Include revised scope of work and complete items A through G below (as applicable)
<input type="checkbox"/> Novation/Name Change of Prime Recipient	Include novation documentation and complete items A through G below (as applicable)
<input type="checkbox"/> Terms and Conditions Modification	Include applicable exhibits with bold/underline/ strikeout and complete items A through G below (as applicable)

A) Business Meeting Information

Business Meeting approval is not required for the following types of Agreements:

Minor amendments delegated to Executive Director per December 2013 Resolution

Proposed Business Meeting Date 5/13/2026 Consent Discussion

Business Meeting Presenter N/A Time Needed: 0 minutes

Please select one list serve. Long Duration Energy Storage (LDES)

Project Description:

National Technology & Engineering Solutions of Sandia, LLC (Sandia National Laboratories). Proposed resolution approving an amendment to agreement LDS-23-001 with Sandia National Laboratories to increase total funding from \$2,000,000 to \$2,900,000, modify the Scope of Work (specifically, removing Project Task Statement (PTS) 2 as mutually agreed between CEC and Sandia National Laboratories, and adding a new PTS3), extend the term by 2 years and, adopting staff's recommendation that this action is exempt from CEQA. The



GRANT AMENDMENT REQUEST FORM (GARF)

additional funds will support added PTS3 for Sandia National Laboratories to support the various CEC-funded LDES deployment projects. **(LDES funding) Contact: Caitlin Planchard**

B) List all subcontractors (major and minor) and equipment vendors: (attach additional sheets as necessary)

Legal Company Name:	Budget
TBD	\$ 75,000
	\$
	\$
	\$

C) List all key partners: (attach additional sheets as necessary)

Legal Company Name:
No key partners.

D) Budget Information (only include amendment amount information)

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
GGRF	23-24	303.201	\$900,000
			\$
			\$

R&D Program Area: ESTB: ETSI

TOTAL: \$ 900,000

Explanation for "Other" selection

Federal Agreement #:

E) California Environmental Quality Act (CEQA) Compliance

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

Yes (skip to question 2)

No (complete the following (PRC 21065 and 14 CCR 15378)):

Explain why Agreement is not considered a "Project":

2. If Agreement is considered a "Project" under CEQA:

a) Agreement **IS** exempt.

Statutory Exemption. List PRC and/or CCR section number:

Categorical Exemption. List CCR section number:

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

Explain reason why Agreement is exempt under the above section: The Energy Commission made CEQA findings pertaining to this project, including a Notice of Exemption, when the project was originally adopted by the Commission on



GRANT AMENDMENT REQUEST FORM (GARF)

4/10/2024. The currently-proposed changes are a SOW change (not to purpose), term extension and a funding augmentation; they will result in no impact to the environment beyond that already considered on 4/10/2024 and do not constitute a substantial change or new information of substantial importance under California Code of Regulations, title 14, section 15162.

b) Agreement **IS NOT** exempt. (consult with the legal office to determine next steps)

Check all that apply

- Initial Study
- Negative Declaration
- Mitigated Negative Declaration
- Environmental Impact Report
- Statement of Overriding Considerations

F) Is this project considered “Infrastructure”? No

G) The following items should be attached to this GARF (as applicable)

- | | | |
|---|---|--|
| 1. Schedule of Products | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 2. Exhibit A, Scope of Work | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 3. Exhibit B, Budget Detail | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 4. CEQA Documentation | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 5. Novation Documentation | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 6. CEC 105, Questionnaire for Identifying Conflicts | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 7. Terms and Conditions | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |

Caitlin Planchard
Agreement Manager

3/20/26
Date

Cody Taylor
Branch Manager

3/26/26
Date

Jonah Steinbuck delegated to
The Branch Manager
Director

N/A
Date

PROJECT TASK STATEMENT 3 (PTS 3)

No. 2074.03.00

BETWEEN

**National Technology & Engineering Solutions of Sandia, LLC
(hereinafter NTESS)**

AND

**California Energy Commission (CEC),
an agency of the State of California
having a principal office in Sacramento, CA
(hereinafter "Participant")**

Implementation of Energy Storage Systems in California

This Project Task Statement (PTS 3) is under the authority and subject to all terms and conditions of Cooperative Research and Development Agreement (CRADA) No. SC23/2074.00.00.

ACRONYMS

Acronym	Definition
CA	California
CEC	California Energy Commission
CRADA	Cooperative Research and Development Agreement
DOE	U.S. Department of Energy
ES	Energy Storage
SNL EST&S	Sandia National Labs Energy Storage Technologies and Systems
GHG	Greenhouse Gas
LCOS	Levelized Cost of Storage
LDES	Long Duration Energy Storage
NTESS	National Technology & Engineering Solutions of Sandia
PTS	Project Task Statement

A. PURPOSE

Energy storage (ES) has been recognized as a critical need in California to implement the long-term energy goals defined in SB 100, an enacted California law. As the CEC continues to conduct research and development activities in the

ES space, it has sought technical assistance and collaboration with NTESS in the implementation of field projects and associated analysis. Eight Long Duration Energy Storage (LDES) deployment projects have received grant awards under the CEC's LDES program (Cal. Public Resources Code §§ 25640 et. seq). Various ES technology related demonstrations funded by other CEC programs are active in the field.

All aspects of LDES –technologies, applications, optimal sizing, safety aspects, performance evaluations and quantification of the economic benefits, resilience value and reduction of greenhouse gas emissions – are of particular interest to both the CEC and NTESS (the “Parties”). NTESS will provide technoeconomic analysis support for the projects.

Reasons for Cooperation

See Annex A, Statement of Work, to CRADA SC23/2074.00.00.

- Currently, most grid scale energy storage systems are 4 hours or less in duration. However, with increased penetration of renewables on the grid, there is a need for cost competitive, safe, longer duration energy storage technology. Collaboration on LDES deployment projects and research would enable each party to more thoroughly evaluate non-lithium-ion LDES technologies to support resiliency and grid reliability applications.
- The proposed work involves performing technoeconomic analysis of deployed systems under the LDES Program to assist CEC and the project team in the implementation and evaluation of LDES demonstration projects.
- ES plays a key role in incorporating renewable energy sources into the utility grid. Selecting appropriate technologies, understanding technology readiness levels, evaluating safety aspects, and performing use case analysis is important for effectively implementing LDES demonstration projects. Sandia National Labs Energy Storage Technologies and Systems (SNL EST&S) group at NTESS has vast R&D experience in various energy storage technologies for grid scale applications and analytical tools to select the appropriate ES technology for capacity (MW) and duration (hours) to maximize benefits under various use case scenarios. In addition, SNL EST&S has extensive project development and installation experience to help assess the safety aspects of various LDES technologies.
- NTESS has developed a publicly available software called QuEST, a capacity expansion planning model that identifies cost-optimal energy storage, resource, and transmission investments, using real-world data from utilities and grid operators. The cooperative research effort through these early demonstration projects would help optimize the tools for wider adaptation and implementation of energy storage technologies in the grid to support the U.S. energy initiatives. This CRADA provides an opportunity to evaluate the selected LDES technology, perform technoeconomic analysis to develop

- optimum use cases and optimization of energy storage analysis tools under various use case scenarios.
- NTESS is interested in collecting data to analyze and make predictions on the operational lifetime performance and Levelized Cost of Storage (LCOS) of LDES systems. California has one of the most extensive renewable energy programs in the world. This program allows NTESS to be involved with and gain knowledge from technologies and projects that they would not have access to otherwise.

B. Public Abstract

The Parties are working under a CRADA to help in the rapid implementation of LDES technologies in California to meet the long-term energy goals defined in SB-100. Under this CRADA, NTESS will work collaboratively with CEC and LDES Program project teams, in the evaluation and safety aspects of LDES systems for critical power/resiliency application and perform technoeconomic analysis to develop optimum use cases and support project execution.

C. SCOPE

Duration of PTS

The period of performance of this PTS is 36 months.

Technical Objectives

- The overall objective for CEC is the deployment and evaluation of various non-lithium-ion long duration systems for utility-scale applications to support the reliability and resiliency of California grid.
- The CEC will work with NTESS to provide specialized support for the various deployment projects under the LDES Program.
- The primary objective for NTESS is to specify field measurements and data gathering needs for operational performance analysis and technology assessment.
- The second objective for NTESS is to perform technoeconomic analysis to optimize sizing, use cases, community benefits, resilience, environmental and economic analysis.
- A third objective is to conduct broader analysis relating to the LDES space, as needed, including gathering insights into the optimal uses of LDES to advance reliability and reduce costs, quantification of the greenhouse gas emissions reduction benefits and assessment of grid reliance benefits.

Tasks and Division of Responsibilities

Phase No.	Task No.	Subtask No.	Task Title	Duration (Starting & Ending Project Month)	Responsible Parties
1	1	1	Agreement management and general project tasks. Participate in project kickoff meeting	1-12	NTESS/CEC
1	2	1	Technoeconomic analysis, qualitative assessment of use cases, community benefits, resilience, environmental and economic benefits	6-18	NTESS
1	3	1	Specify field measurements, use operational and manufacturer data to perform technoeconomic and LCOS analysis	12-36	NTESS
2	3	1	Quantify the economic and resilience value of the proposed system and potential community benefits	12-36	NTESS/CEC
3	4	1	Evaluate system configuration and revenue streams providing insights into optimal uses of LDES to advance reliability and reduce costs.	12-36	NTESS/CEC
4	5	1	Quantify the influence of LDES in reducing	12-36	NTESS/CEC

Phase No.	Task No.	Subtask No.	Task Title	Duration (Starting & Ending Project Month)	Responsible Parties
			greenhouse gas emissions. Evaluate potential risks and impacts of disruptive events on energy systems and assess the resilience value of LDES through social burden metrics.		
	5		Prepare Final Report	12-36	NTESS/ CEC

Task Descriptions

The following tasks present a general guide for NTESS support on the various projects under the CEC LDES Program. Actual execution of tasks may vary across the different LDES projects and are subject to the needs identified by the CEC to best support the individual projects, while also providing information that is valuable to NTESS. Any work conducted will still be consistent with the Umbrella CRADA terms and the scope of this PTS; if any planned work materially differs from this PTS, an Amendment will be executed to capture such work and be subject to available funding.

Task 1: Kick off with project teams

The Parties shall:

- Participate in a project team kick off meeting and will seek to understand the project details for technoeconomic analysis.
- Parties will establish agreement on the scope of work, schedule, terms and conditions, funding, progress reports and related topics.

Deliverables:

- Schedule
- Progress Reports on Subtasks
- Meeting Minutes from Regularly Scheduled Teleconferences or Meetings

Task 2: Technoeconomic Analysis, Installation Codes, Standards, And Safety Review

The Parties shall:

- Use QuESt software, manufacturers' data sheets, and user inputs, to perform technoeconomic analysis simulations to optimize LDES system size for different use cases, optimizing community, resilience, environmental, and economic benefits.
- Provide guidance to the CEC on safety and other codes and standards applicable to the installation of a particular LDES system.

Deliverables:

- Report Containing:
 - Analysis Results to Help Optimize the LDES System
 - Explanation of the safety and other codes and standards applicable to installation of the LDES system

Task 3: Operational Data Analysis

The Parties shall:

- Specify field measurements to gather operational and manufacturer data to perform technoeconomic and LCOS analysis.
- Using manufacturer information, prepare and provide guidance for data collection to the project team. NTESS will deliver analysis report on LCOS and expected life of the energy storage system using modeling and analysis tools.

Deliverables:

- Operational Data Analysis Report

Task 4: Energy Storage Analysis

The Parties shall:

- Support the CEC project team with various analyses of LDES systems deployed for CEC projects.
- Quantify the economic and resilience value of the proposed LDES system and potential community benefits.
- Evaluate system configuration and revenue streams providing insights into optimal uses of LDES to reliability and reduce costs.
- Quantify the reduction in GHG emissions attributable to the LDES system utilizing CARB guidelines.
- Evaluate potential risks and impacts of grid reliability events, such as public safety power shutoffs and weather events, and assess the resilience value of the LDES system through social burden metrics.
- Produce a System Modeling Report including results of the simulations and analysis that utilizes performance data and optimization of the modeling tools to capture the resiliency, community and other benefits of LDES systems.
- Make recommendations to CEC and project team on the optimum use profile of the LDES system based on the analysis.

Deliverables:

- System Modeling Report

Task 5: LDES Influence on Greenhouse Gas Emission Reduction Final Report

Discussion:

Quantify the influence of LDES in reducing greenhouse gas emissions. Evaluate potential risks and impacts of disruptive events on energy systems and assess the resilience value of LDES through social burden metrics.

The Parties agree that upon completion or termination of this PTS, a final report shall be developed by NTESS in consultation with the CEC, which will include the following information:

- 1) A final abstract
- 2) Technical results/accomplishments
- 3) A list of PTS-generated Intellectual Property (Subject Inventions, Copyrights, Mask Works, and/or Trademarks)
- 4) A description of benefits to the PTS Participant/s, industry, consumers/taxpayers, and/or California economy.

NTESS, as project lead, will have primary responsibility for delivering the final report.

Deliverables:

- Final Report to CEC and the project team

D. ESTIMATED COST

	PY1	PY2	PY3	Total
	(01-12 months)	(12-24 months)	(24-36 months)	
DOE contribution	\$50,000	\$50,000	\$50,000	\$150,000
Other Federal Funds	\$0	\$0	\$0	\$
Total NTESS Funds	\$50,000	\$50,000	\$50,000	\$150,000
Funds-In Contribution	\$189,284	\$368,379	\$342,337	\$900,000
Paid 0.0% Fed Admin Charge	\$0	\$0	\$0	\$0
Total Participant Funds-In	\$189,284	\$368,379	\$342,337	\$900,000
In-Kind Contribution	\$100,000	\$100,000	\$100,000	\$300,000

<i>(*In-Kind is a non-monetary estimation of the salary, equipment, travel, etc. that will be expended to support the collaboration)</i>				
Total Participant Funds	\$289,284	\$468,379	\$442,337	\$1,200,000
Total CRADA Value	\$339,284	\$518,379	\$492,337	\$1,350,000

The CEC agrees to pay in advance for actual allowable expenditures incurred in accordance with the Budget Justification (Attachment 1). The rates in the Budget are rate caps, or the maximum amount allowed to be billed. NTESS can only invoice for actual expenses incurred at the NTESS's actual rates not to exceed the rates specified in the Budget Justification (e.g., direct labor rates, fringe benefit rates, and indirect rates).

Detailed project spend reports will be provided to the CEC in a timely manner.

For NTESS:

(Principal Investigator) Ramesh Koripella
 Org 08811/MS 1108
 (505) 845-7644
 crkorip@sandia.gov

For Participant:

(Principal Investigator) Caitlin Planchard
 (916) 637-8128
Caitlin.planchard@energy.ca.gov

D. PAYMENT TERMS

The CEC shall provide sufficient funds in advance to reimburse NTESS for costs to be incurred in performance of the work described in this PTS, and the NTESS shall have no obligation to perform in the absence of adequate advance funds. CEC's payment to NTESS shall be made in accordance with the remittance instructions included on NTESS's Invoice. If the estimated period of performance exceeds 90 days and the estimated cost exceeds \$25,000, the CEC may, with the NTESS's approval, advance funds incrementally. In such a case, the CEC shall provide to the NTESS, prior to any work being performed, an advance payment sufficient to cover anticipated work that will

be performed for the first billing cycle. In addition, the CEC shall provide additional advance funding to ensure that funds remain available for work during subsequent billing cycles (collectively the advance payment amount of **\$150,000.00**). Following CEC's remittance of the advance payment, the NTESS will invoice the CEC each billing cycle (or as necessary) to maintain a balance of funding sufficient to cover anticipated work. CEC's payment shall be due no later than thirty (30) days after receipt of NTESS's invoice. Payment shall be made directly to the NTESS who will then notify the DOE as appropriate. Upon termination or completion, any excess funds shall be refunded by the NTESS to the CEC.

This agreement is funded by the Greenhouse Gas Reduction Fund created pursuant to Government Code section 16428.8 et. seq. CEC shall comply with the provisions of the laws enacted for spending of auction proceeds deposited into the Greenhouse Gas Reduction Fund, including without limitation: Health and Safety Code Section 39710 et. seq.; Government Code section 16428.8 – 16428.95, including any amendments to these sections.

Budget Contingency Clause.

It is mutually agreed that if the Budget Act of the current year and/or any subsequent years funding the agreement does not appropriate sufficient funds for the program, this agreement shall be of no further force and effect upon written notice by CEC pursuant to the CRADA terms. Participant shall provide NTESS with notice of such a lack of appropriated funds as soon as practicable but, in any event, prior to the time at which funds in NTESS's possession may no longer be spent. In this event, thereafter, the State of California (State) shall have no liability to pay any additional funds whatsoever to NTESS or to furnish any other considerations under this agreement and NTESS shall no longer be obligated to perform any provisions of this agreement. If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the Participant shall have the option to either terminate this agreement with no liability occurring to the Participant therefrom, or offer an agreement amendment to NTESS to reflect the reduced amount.

Travel and Per Diem.

- A. Travel identified in Attachment 1 Budget Justification does not require prior authorization.
- B. Travel that is not included in the NTESS Budget Justification shall require prior written authorization from the CEC.
- C. Origination and destination points for calculating travel expenses shall be the NTESS's office location where the employees performing on the agreement are permanently assigned. NTESS shall be reimbursed for travel and per diem on the same basis as the DOE approved rates in effect during this agreement.
- D. NTESS will document travel expenses as follows:
 - expenses must be detailed using the DOE-approved rates.

- expenses must be documented by trip including dates and times of departure and return. Employee's travel expense report may be used instead.
- NTESS will retain travel expense documentation and receipts for audit and verification to the extent audits are permitted by DOE policy.

This CRADA is subject to Gov. Code § 8546.7.

DRUG-FREE WORKPLACE REQUIREMENTS: NTESS will comply with the requirements of the Drug-Free Workplace Act of 1990 and will provide a drug-free workplace by taking the following actions:

- a. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.
- b. Establish a Drug-Free Awareness Program to inform employees about:
 - 1) the dangers of drug abuse in the workplace;
 - 2) the person's or organization's policy of maintaining a drug-free workplace;
 - 3) any available counseling, rehabilitation and employee assistance programs; and,
 - 4) penalties that may be imposed upon employees for drug abuse violations.
- c. Every employee who works on the proposed CRADA will:
 - 1) receive a copy of the company's drug-free workplace policy statement; and,
 - 2) agree to abide by the terms of the company's statement as a condition of employment on the CRADA.

Failure to comply with these requirements may result in suspension of payments under the CRADA or termination of the CRADA or both and NTESS may be ineligible for award of any future State agreements if the department determines that any of the following has occurred: the NTESS has made false certification, or violated the certification by failing to carry out the requirements as noted above. (Gov. Code § 8350 et seq.)

E. PERSONAL PROPERTY

None

F. LOANED/BORROWED PROPERTY

None

G. BACKGROUND INTELLECTUAL PROPERTY

Section H provides each Party the opportunity, as a matter of goodwill but not legal obligation, to declare its interests in Intellectual Property that has been created in the "background", i.e., before or outside this PTS. The purpose is to forestall disputes over what is and what is not Generated Information.

Each Party may use another Party's Background Intellectual Property identified in Section H of this PTS solely in performance of research and development under the PTS. This PTS does not grant or promise to grant to a Party any option, grant, or license to commercialize, or otherwise use another Party's Background Intellectual Property. Licensing of Background Intellectual Property, if agreed to by the Parties, shall be the subject of separate licensing agreements between the Parties.

Each Party has used reasonable efforts to list all relevant Background Intellectual Property, but Intellectual Property may exist that is not identified. No Party shall be liable to another Party because of any failure to list Background Intellectual Property.

NTESS elects to declare an interest in the following Background Intellectual Property:

None

NTESS elects to declare an interest in the following Background Intellectual Property:

None

H. APPROVAL

For NTESS:

BY:

Mary Monson

TITLE: Senior Manager, Technology Partnerships & Business Development

DATE: _____

For Participant:

BY: _____

TITLE: _____

DATE: _____