



Item 12: National Technology & Engineering Solutions of Sandia, LLC as Management and Operating Contractor for the Sandia National Laboratories, hereinafter referred to as “Sandia National Laboratories.”

April 10, 2024 Business Meeting

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Benefit to California

- Advance the science of long duration energy storage (LDES) technology
- Inform LDES investments
- Improve grid resiliency and reliability



Source: Sandia National Laboratories



Overview - CRADA

Cooperative Research and Development Agreement (CRADA)

- Facilitates a collaborative effort
- Provide technical assistance and knowledge share
- Assist CEC LDES deployment efforts

Project Task Statement (PTS)	Purpose	CEC Funds
PTS 1	Critical evaluations of LDES technologies	\$2,000,000
PTS 2	Support the CEC e-Zinc LDES project	N/A



Overview – PTS 1

PTS 1

- Develop software to quantify GHG emission reduction
- Evaluate LDES technology
- Contribute knowledge and expertise
 - DOE LDES Consortium
 - CEC energy storage safety working group
- CEC Funds: \$2,000,000
- DOE/Sandia Funds: \$750,000



QuEST is a Python-based, open source energy storage software suite developed by Sandia.

Source: Sandia National Laboratories



Overview – PTS 2



Source: e-Zinc

PTS 2

- Separate agreement with e-Zinc
 - DOE Funds: \$10,000,000
 - CEC Funds: \$9,000,000
- Validate the CEC e-Zinc project
 - 500kW/24hr zinc-air battery
 - Sandia facility in Livermore
- Data collection and technoeconomic analysis



Staff Recommendation

- Approve CRADA agreement with Sandia National Laboratories
- Adopt staff's determination that action is exempt from CEQA