See the formatting recommendations in Part III, Section A.

The Project Narrative must respond to each sub-criterion below. (**Unless otherwise noted, each prompt applies to all groups.**)

# 1. Technical Merit

1. The proposed project provides a clear and concise description of the technological, scientific knowledge advancement, and/or innovation that will overcome barriers to achieving the State’s statutory energy goals.
2. Describes the competitive advantages of the proposed technology over state-of-the-art (e.g., efficiency, emissions, durability, cost).

*In addition, provide a competition matrix to compare current and competing technologies, such as*

**Table X: Competition Matrix***:*

| **Comparable Attribute** | **Applicant’s Technology** | **Current Leading Technology** | **Competing Technology** |
| --- | --- | --- | --- |
| Example: Electrical efficiency | (1 unit) | (3 units) | (2 units) |
| Example: Temperature range | (20 units) | (10 units) | (10 units) |
|       |       |       |       |
|       |       |       |       |

1. Provides the proposed technical specifications and describe how the project will meet or exceed the technical specifications by the end of the project.
2. Describes the technology readiness level (TRL) the proposed technology has achieved and the expected TRL by the end of the project.

Part e and f (Group 1, 2, and 3 only)

1. Describes at what scale the technology has been successfully demonstrated, including size or capacity, number of previous installations, location and duration, results, etc.)
2. Describes how the proposed demonstration will lead to increased adoption of the technology in California.
3. Provides information described in Section I.C

# 2. Technical Approach

1. The application describes the technique, approach, and methods to be used in performing the work described in the Scope of Work
2. The Scope of Work identifies goals, objectives, and deliverables, details the work to be performed, and aligns with the information presented in Project Narrative.
3. The application identifies the reliability that the project and site recommendations as described will be carried out if funds are awarded.
4. Identifies and discusses factors critical for success, in addition to risks, barriers, and limitations (e.g., loss of demonstration site, key subrecipient). Provides a plan to address them.
5. Discusses the degree to which the proposed work is technically feasible and achievable within the proposed project schedule and the key activities schedule in Section I.E.
6. Describes the technology transfer plan to assess and advance the commercial viability of the technology.

Part g and h (Group 1, 2, and 3 only)

1. Provides a clear and plausible measurement and verification plan that describes how energy savings and other benefits specified in the application will be determined and measured.
2. Provides information documenting progress towards achieving compliance with the California Environmental Quality Act (CEQA) by addressing the areas in Section I.I and Section III.C.7.
3. Provides information described in Section I.C.

# 3. Impacts and Benefits to California IOU Ratepayers

1. Explains how the proposed project will benefit California Investor-Owned Utility (IOU) ratepayers and provides clear, plausible, and justifiable (quantitative preferred) potential benefits. Estimates the energy benefits including:
	* annual electricity and thermal savings (kilowatt-hour and therms), energy cost reductions, peak load reduction and/or shifting, infrastructure resiliency, infrastructure reliability.

**In addition, estimates the non-energy benefits including:**

* greenhouse gas emission reductions, air emission reductions (e.g., NOx), and/or increased **health, comfort, and safety**.
1. States the timeframe, assumptions with sources, and calculations for the estimated benefits, and explains their reasonableness. Include baseline or “business as usual” over timeframe.
2. Explains the path-to-market strategy including near-term (i.e. initial target markets), mid-term, and long-term markets for the technology, size and penetration or deployment rates, and underlying assumptions.

Part d and e (Group 1, 2, and 3 only)

1. Identifies the expected financial performance (e.g., payback period, ROI) of the demonstration at scale.
2. Identifies the specific programs which the technology intends to leverage *(e.g., feed-in tariffs, IOU rebates, demand response, storage procurement) and extent to which technology meets program requirements.*

# 4. Team Qualifications, Capabilities and Resources

1. Identifies credentials of applicant and any subrecipient and sub-subrecipient key personnel, including the project manager, principal investigator, and technology and knowledge transfer lead *(include this information in Project Team Form Attachment).*
2. Demonstrates that the project team, *(TDD only) including Community Based Organization,* has appropriate qualifications, experience, financial stability and capability to complete the project.
3. Explains the team structure and how various tasks will be managed and coordinated.

*Include an organization chart similar to the one below*

 **Figure X: Organization Chart**

1. Describes the facilities, infrastructure, and resources available that directly support the project.
2. Describes the team’s history of successfully completing projects in the past 10 years including subsequent deployments and commercialization.

# 5. Budget and Cost Effectiveness

1. Budget forms are complete for the applicant and all subrecipients, as instructed in Budget Attachment.

*Provide a budget by tasks, such as:*

**Table X: Task Budget**

| **Task (by major task)** | **Energy Commission Funds** | **Match Share** | **Total** |
| --- | --- | --- | --- |
| Task 1: General Project Tasks |       |       |       |
| Task 2: |       |       |       |
| Task [TBD-1]: Evaluation of Project Benefits |       |       |       |
| Task [TBD-2]: Technology/ Knowledge Transfer Activities \* |       |       |       |

\* **Requires 5% of total CEC funds**

1. Justifies the reasonableness of the requested funds relative to the project goals, objectives, and tasks.
2. Justifies the reasonableness of direct costs (e.g., labor, fringe benefits, equipment, materials & misc. travel, and subrecipients).
3. Justifies the reasonableness of indirect costs (e.g., overhead, facility charges (e.g., rent, utilities), burdens, subrecipient profit, and other like costs).
4. Justifies how the proposed project, including the amount of match funds, optimizes the use of CEC funds to achieve program objectives.
5. Justifies the appropriateness of match funds with respect to the project’s potential risks and benefits, including level of commitment, type of match (e.g., cash, in-kind), sources, and match funding replacement strategy.

# 6. Funds Spent in California

This project proposes to spend $\_\_\_\_\_\_\_\_\_ of Energy Commission funds in California.

# 8. Disadvantaged & Low-Income Communities

1. Identifies how the proposed project, will lead to increased deployment of the technology or solution to benefit disadvantaged and/or low-income communities, including specific entities that will receive these benefits (e.g., businesses, local government, homeowners, residents).
2. Identifies how the proposed project will have a positive economic impact on low-income and/or disadvantaged communities including customer bill savings, job creation, partnering and contracting with micro- and small-businesses, and economic development.
3. Describes potential negative impacts or risks of the proposed technology or solution to disadvantaged and/or low-income communities and how they will be assessed and mitigated.
4. Describes how the proposed project will increase access to clean energy or sustainability technologies within disadvantaged and/or low-income communities and how the project activities will benefit the communities.
5. Identifies and describes how community input will be solicited and considered in the design of the project, and how outreach and engagement will be conducted during project implementation. (Group 1, 2, and 3 only)
6. Includes letters of support from technology partners, community-based organizations, environmental justice organizations, or other partners that demonstrate their belief that the proposed project will lead to increased equity and is both feasible and commercially viable in the identified low-income and/or disadvantaged communities.