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CalSEED

Concept Award Application Manual

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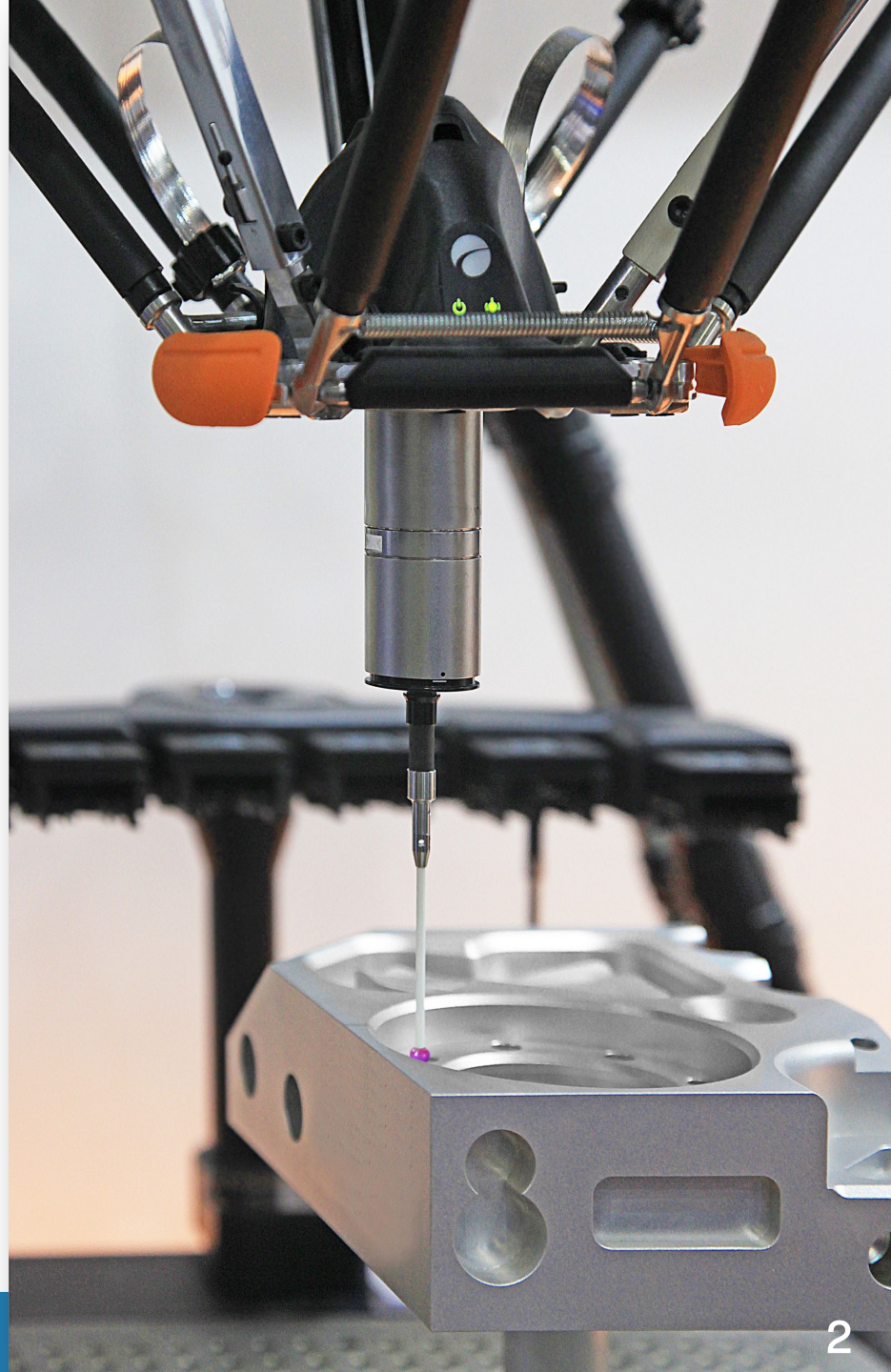

About CalSEED

The California Sustainable Energy Entrepreneur Development Initiative (CalSEED) is an early-stage grant funding and professional development program for diverse innovators and entrepreneurs working to bring clean energy concepts to market.

Our unique program represents an innovative public-private partnership made possible by the California Energy Commission and funded through the Electric Program Investment Charge. CalSEED is administered by the California Clean Energy Fund. Together, with our large ecosystem of partners, technical advisors and industry leaders, we support the efforts of California's early-stage entrepreneurs to develop novel and cost-effective solutions capable of equitably and sustainably transforming the state's energy economy, while also creating greater reliability, lower costs, and increased safety to California's energy consumers.

The CalSEED program is part of a robust ecosystem of partners including the California Energy Commission, New Energy Nexus, Berkeley Lab, Greenlining Institute, Cleantech Open, Momentum, and Center for Sustainable Energy. This amazing ecosystem of incubators, accelerators, nonprofits, private companies, and universities works together to deliver resources, mentoring, and business building support to our participating entrepreneurs.

CalSEED Benefits

CalSEED Awardees gain access to several benefits. These benefits help awardees develop their concepts and prepare them for the Prototype Award Business Plan Competition.

- Grants of $150,000 to fund concept development (non-dilutive; no equity stake)
- A powerful network of technical and industry experts, investors, prospective partners, and utilities
- Mentorship from experienced clean energy entrepreneurs
- Access to operational and technical resources throughout California
- Webinars and online training to enhance business building and fundraising skills
- Introduction to cutting edge facilities through the Regional Innovation Clusters
- Participation in Cleantech Open's Accelerator
- Inclusion in a community of fellow CalSEED awardees

Concept Award

$150,000

- Concept development & assistance
- Mentorship from industry leaders
- Introduction to resources to advance the concept

Prototype Award

$450,000

- Successful Concept Awardees prepare for commercialization
- Business Plan Competition to push awardees to think about commercialization

Concept Award Application – Important Application Dates

The CalSEED program will award up to **33** Concept Awards in 2023.

Information Sessions and Webinars	Application overview presentations will provide applicants with the requisite information to develop the highest quality application possible. Recordings, questions, comments, and presentations will be posted on the CalSEED website.	**January 25, 2023** **February 15, 2023**
Eligibility Applications Open	The Concept Award eligibility application will be available through a link on the CalSEED website. Online applications must be submitted by 11:59 PM. Mail-in Eligibility applications must be received via registered mail by March 5th as well.	**February 17 – March 5, 2023**
Invitation to Full Application	Those applicants that progress through the eligibility screening will be invited to submit a full application.	**March 10, 2023**
Full Applications Due	Deadline for full applications. Online applications must be submitted by 11:59 pm. Mail-in Full applications must be received via registered mail by March 28th as well.	**March 28, 2023**

Prospective applicants should always confirm dates and deadlines at www.calseed.fund. We anticipate notifying applicants of their final Concept Awards status Fall of 2023.

What Stage of Development Will CalSEED Fund?

CalSEED is focused on early-stage technologies that provide benefits to California ratepayers but lack access to private-sector capital. Specifically, CalSEED seeks hardware, software, or integrated solutions that fall between Technology Readiness Levels (TRL) 2 and 4 on the Department of Energy's defined TRL scale. Generally, TRL 2-4 can be defined as follows:

TRL 2	You have completed basic scientific research and begun to speculate about practical applications
TRL 3	Through experimentation, modeling, and analysis, you have proved your basic concept.
TRL 4	You have validated the basic functionality of a component or developed and tested an "alpha" version of a new software

For more detailed descriptions of TRL levels please refer to the Department of Energy's report, or the TRL guide from Lawrence Berkeley National Lab and the FAQ below.

What Types of Innovations Will CalSEED Fund?

For the 2023 Concept Awards, applications are being accepted for the technology areas on pages 7 and 8 only:

Energy Storage	Non-lithium-ion short-duration technologies with reduced capital and life-cycle cost, better lifetime performance, access to greater depth of discharge, reduced degradation over time, better round-trip efficiency, and improved supply-chain diversity relative to lithium-ion battery systems.
	Long-duration storage technologies capable of storing energy for 8 hours or longer, specifically: flow batteries, advanced battery chemistries such as solid-state batteries, flywheels, compressed air, liquid air systems, molten salt, molten sulfur, or gravity storage.
	Technologies that advance low-impact recovery of lithium and other co-products from geothermal brine.
DER Integration and Load Flexibility	Advanced machine learning or AI techniques to improve forecasting behind-the-meter solar photovoltaics, storage, and load flexibility
	Low-cost, modular, and replicable behind-the-meter direct current power systems that enable efficient, clean, and reliable power for electric vehicles and other direct current end-uses.
	Modular power electronics technologies that can safely enable behind-the-meter renewable generation systems to provide backup power functionality at reduced cost.
	Advanced flexible load technologies and tools to facilitate and increase grid resiliency and demand response in the industrial, agricultural, and water sectors.
	Open-source data and management controls that can be used by Plant Aggregators and others to aggregate customer loads, manage the loads to grid conditions, and provide grid services needed to support a clean and resilient electric grid.
	Advances in control technologies, sensors, and communication systems to increase reliability and interoperability of flexible loads and DERs for building automation.

What Types of Innovations Will CalSEED Fund?

For the 2023 Concept Awards, applications are being accepted for the technology areas on pages 7 and 8 only:

Transportation Electrification	High efficiency charging devices and systems that reduce electric losses and costs of electric vehicle charging.
	High-power electric drive systems for medium- and heavy-duty vehicle applications.
	Innovative reuse and recycling technologies for end-of-life lithium-ion batteries to conserve critical materials, promote material sustainability, reduce environmental impacts, or reduce the cost of new storage products by lowering material costs.
Building Decarbonization	High efficiency 120-volt and 240-volt heat pump water heaters or heating, ventilation, and air conditioning heat pumps that use low-global warming potential refrigerants.
	New building envelope technologies, such as thermal storage or phase change materials, or manufacturing processes to reduce the cost of highly efficient advanced building retrofit solutions.
	Next generation heat pump system that combines hot water and space conditioning into a packaged, modular unit.
	Innovative HVAC decarbonization solutions for large commercial buildings, specifically: hybrid low-GWP electric heat pump systems, low-cost large air-source and water-source heat pumps that use low-GWP refrigerants, non-vapor compression cooling, solid-state cooling, or ground-source heat pumps.
Industrial Decarbonization	Low-carbon, high-temperature industrial heating solutions, specifically: direct electrification technologies or high-temperature heat pumps.
	Energy efficiency and decarbonization technologies for concrete manufacturing, specifically: advancements in electrically driven carbon capture and utilization to increase its energy efficiency; alternative raw materials, chemistries, or processes to produce cement and concrete, including substitutes that enable electrification technologies by reducing temperature requirements.
	Innovative electric-driven separation technologies in the industrial sector, specifically in food processing, chemicals, water desalination, wastewater treatment, or carbon capture.

What Kinds of Technologies will CalSEED fund?

CalSEED funds hardware, software, and integrated innovations.

	Hardware	Software	Integrated Solutions
Description	Physical components—tools, machinery, durable equipment—that require design and testing	Software or digital technology that is based on advanced data science approaches and algorithms, such as machine learning, that provides information and analysis used in the planning and operation of a safe, reliable and resilient electricity system	An innovative combination of software and hardware where the software or digital technology is based on advanced data science approaches and algorithms, such as machine learning, that directly controls or communicates with energy-related hardware components and devices
Examples	Manufacturing equipment; sensors; components; transmission and distribution infrastructure improvements; equipment	Smart learning from data/real-time modeling; algorithms for grid reliability and control; demand response or distributed energy solutions; sophisticated analytical tools for assessing climate-related risks to the electric system	Solutions which leverage software and hardware to increase efficiency and resilience of the grid and/or solve community access issues (e.g., vehicle to grid concepts)
Out of Scope	Project financing for already existing technologies; manufacturing line scale up; funding a commercial scale prototype; infrastructure projects; natural gas projects	Customer acquisition software; apps/games; website development for an existing company; training and/or workforce development platforms	Single non-replicable solutions. Concepts that are not novel or innovative in application.

Access and Inclusion

California is recognized as a leader in progressive clean energy and climate policies, as well as in technology innovation. Many communities in the state, however, still lack access to clean energy resources.

As California continues to promote clean energy and sustainable innovation, we must ensure that clean energy solutions address the interests and needs of the state's most underserved or disadvantaged populations. It is critical that members of these communities be able to fully enjoy the benefits and opportunities presented by a clean energy economy. That's why CalSEED is committed to making equity a key component of the CalSEED Initiative.

Equity In

Attracting a Diverse Pool of Applicants

We actively seek diverse innovators across California to fully participate in the development and implementation of clean energy solutions. We do this through inclusive outreach to encourage applicants from early-stage businesses and communities that are underrepresented in the climate tech industry and who may be disproportionately impacted by climate change, pollution, and poverty. This includes applicants who are women, low-income, Black, Indigenous, and People of Color (BIPOC), Lesbian, Gay, Bisexual, Transgender, Queer, Asexual, Intersex (LGBTQAI+), rural residents, and veterans. We also drive equity into our programs by having:

- An impartial selection process
- Social impact and energy equity award selection criteria
- Balanced award distribution throughout the state to ensure geographic diversity

Equity Out

Encouraging Clean Energy Solutions that Lead with Equity

Disadvantaged communities as defined by CalEnviroScreen need clean energy investments that create healthier environments and reduce the cost of basic necessities. CalSEED encourages entrepreneurs to develop equitable and replicable energy solutions that positively impact our most vulnerable populations. We support and coach entrepreneurs to bring equitable and innovative ideas out to communities by working with them to:

- Develop innovations that can improve environmental, health, and economic conditions in disadvantaged communities at scale
- Integrate diversity, equity, and inclusion best practices into their growing companies and teams
- Encourage early-on relationship-building and partnership with community-based organizations and inclusive businesses

Social Impact & Energy Equity

Innovations selected for award must benefit California ratepayers by increasing the electrical grid's reliability or safety, or by lowering costs. To be selected for a CalSEED award applicants will asked to identify how, when scaled, the proposed technology has the potential to benefit electricity ratepayers in California. Additionally, the CalSEED program is committed to building energy equity into the foundation of how grant awardees conceive their clean energy ideas, design their products and run their companies.

In the application, there are opportunities to explain the potential social impact of scaling your technology, and identify ways your innovation could advance energy equity, specifically through:

Economic Opportunities

Does the proposed innovation demonstrate potential to create positive economic impact in low-income and/or disadvantaged communities in terms of job creation, micro-and small-business partnerships and economic development? (e.g. Will the company hire or utilize vendors in disadvantaged/low-income communities?)

Access

Will the proposed innovation increase access to clean energy, energy efficiency technologies, energy storage, or energy cost reduction within disadvantaged communities and/or low-income communities? (e.g. Will it make clean energy more affordable?)

Pollution Burden

Will the proposed innovation address pollution burdens that disproportionately impact disadvantaged and/or low-income communities? (e.g. air pollution/air quality, traffic congestion, low-cost/retrofit applications)

Project Siting

Can the proposed innovation be deployed in a disadvantaged community and/or low-income community?

Resilience

Could the proposed innovation help improve the resiliency and reliability of electricity service in locations that that are being impacted by extreme weather-related events such as wildfires?

Who Can Apply?

Basic Requirements

CalSEED is open to California-based applicants working on early-stage innovations – from concept to prototype.

All applicants must meet the following requirements to receive an award:

- Based in California and be in good standing with the California Secretary of State at the time of contracting
- Developing a technology currently at a Technical Readiness Level (TRL) of 2, 3 or 4
- Must be able to identify how the proposed technology, when scaled, will benefit electricity ratepayers in California
- Be within one of the technology areas listed on pages 7 and 8 of this document
- Be under a $1 million private funding cap

We Encourage Applications From:

Individuals / Teams

You can apply without an organization affiliation

Business

Startups, small businesses or other companies

Non-Profit Organizations

Organization with official non-profit tax exemption

Who Can Apply?

$1 Million Funding Cap

CalSEED Concept Awards are intended for early-stage startups where $150,000 in grant funding will have a meaningful impact. This includes companies that have received very little to no funding to date, have limited access to outside capital, or are not candidates for traditional forms of investor financing.

To align with this objective, only companies who have received less than $1,000,000 in private, outside funding at the time of application are eligible for a Concept Award. This includes private funding, revenue, and investment capital. Personal/family funds and loans count towards this cap.

Funds raised after application submission are not counted against the $1,000,000 cap. CalSEED Awardees are encouraged to continue raising funds and diversify funding sources to supplement and build upon their CalSEED Awards.

CalSEED

Application Manual

How It Works

Apply Online

Apply for eligibility online. Select applicants will be notified of their eligibility and invited to submit a full application.

Technical Review

After an eligibility screening the CalSEED Review Committee scores applications

Concept Award

Winners are awarded up to **$150,000** in grant funding.

Capacity Building

Awardees can participate in CleanTech Open and in select networking events, workshops, and webinars.

Business Plan Competition

Create your business plan and pitch your concept to a Technical Advisory Committee.

Prototype Award

Business Plan Competition winners receive up to **$450,000** to further pursue their innovations.

Application Process

1. Navigate to www.calseed.fund.
2. Follow the link and complete the short eligibility form. Be prepared to answer brief questions about the eligibility of your proposed innovation and its stage of development.
3. After initial screening, all eligible submissions will be invited to submit full applications.
4. Eligible applications will be sorted into four geographic regions for review, and then scored by the CalSEED Review Committee.
5. The highest 8-9 scores from each region, totaling approximately 33 finalists recommended for funding.
6. The CalSEED team will send award recommendations to the CEC for approval.
7. The CEC will confirm and gavel in awardee selections at a monthly Business Meeting.

As part of the eligibility application process, applicants will:

- Answer multiple choice questions about their innovation and stage of development.
- Describe their clean energy concept.
- Disclose the amount of funding they have raised to date.
- Identify the potential for community impact.

As part of the full application process, applicants will:

- Provide additional information about their clean energy concept.
- Detail the potential energy equity, economic, and environmental benefits of their clean energy concept when scaled.
- Provide information about their team, entity, or organization (if applicable).
- (Optionally) Attach Letters of Support.

For additional help completing the application or to find out how to apply by mail, email the CalSEED team at info@calseed.fund.

Application Process

Applicants who pass the eligibility screening will be invited to complete a full application. The CalSEED Review Committee will evaluate all full applications submitted from the four California regions (Central Valley Area, San Diego Area, Los Angeles Area, and Bay Area).

The Review Committee comprises industry leaders and representatives from California's leading energy agencies, accelerators/incubators, energy not-for-profits, academic institutions, foundations, venture capital firms, and energy engineering firms. During the evaluation process, the Review Committee will consider three major scoring categories: Innovation, Impact, and Team & Readiness. All three categories are weighed equally. This manual discusses the scoring categories in detail, which should be reviewed carefully prior to submitting a full application.

Once the Review Committee has completed the review process, selected applications will be subject to final approval by the California Energy Commission (CEC) to confirm the final CalSEED Concept Award awardees. At that time, CalSEED will notify the awardees and explain the next steps.

Scoring Category 1: Innovation

In this section, innovations will be described in detail and goals listed for the project. It is critical to explain how the proposed innovation is unique and will represent an advancement over current state-of-the-art products. Applicants will discuss any existing or anticipated products that could compete with the proposed innovation once it is fully developed and has entered the market. Finally, applicants will discuss how the innovation has the potential to benefit rate-payers in California, and if there is anything specific about the innovation that will advance energy equity when it is scaled.

Critical questions to consider as you draft your application

1. What problem/challenge does the proposed innovation address?
2. What obstacles stand in the way of solving this problem?
3. How will the proposed innovation address these obstacles and, ultimately, solve the problem?
4. What are the technical and commercial challenges inherent in completing the proposed project?
5. Why is your proposed solution innovative and not simply an incremental improvement on existing solutions already in the market?
6. Will it create greater reliability, lower costs, reduce emissions, and/or increase the safety of California's electricity grid? If so, how?
7. Are the unique technical features of your innovation that advance energy equity?

Key Points

- Ability to show, in detail, why the project is innovative.
- Provide perspective on the state of the current market.

Scoring Category 2: Social Impact & Energy Equity

In this section, describe how the innovation—once fully developed and on the market—will benefit California utility ratepayers. List the assumptions used to determine benefits and provide a copy of the calculations. An explanation will be required for each impact question marked "yes" in the eligibility form. This approach ensures that benefits to California ratepayers remain a central theme in all projects funded by CalSEED.

The CalSEED Program is committed to increasing participation in California's booming clean energy economy by members of underserved populations and disadvantaged communities. Proposals that have the potential to deliver real benefits—such as job creation, supply chain development, education, economic development, and reducing the need for Public Safety Power Shutoffs—stand to score higher in the evaluation process.

Many early-stage innovations will not deliver meaningful ratepayer benefits in the immediate future, therefore it is vitally important to include a discussion of the potential long-term impact of the innovation. For innovations that are early in a supply chain and do not have direct contact with electricity rate-payers or end users (for example, a component of another product or storage for grid reliability, e.g. B2B) it is important to identify what the supply chain could look like so the benefit is clear.

Critical questions to consider as you draft your application

1. Who will benefit from the proposed innovation?
2. How will the innovation benefit California electric utility ratepayers?
3. Is there a specific feature or function of the technology that could advance energy equity?
4. To what extent will the innovation increase access to clean energy or sustainability technologies within disadvantaged and/or low-income communities?
5. To what extent will the innovation target air pollution reduction in a disadvantaged, low-income, rural, tribal, and/or heavily (top 10 percent) polluted community?
6. To what extent will the innovation create opportunities for job creation, contracting, supplier diversity, and economic development?

Key Points

- The CalSEED Program is committed to assisting entrepreneurs develop projects that will benefit California ratepayers.
- The CalSEED Program is dedicated to working with entrepreneurs who have a positive impact on California's disadvantaged and underrepresented communities.

Scoring Category 3: Team & Approach

CalSEED is funded by California utility ratepayers through the CEC EPIC program, and all CalSEED projects are required to spend project funds in a responsible and cost-effective manner. Applicants are expected to show that they are ready to begin work on their project and have the skills and resources necessary to complete the proposed work plan on schedule and within budget. A step-by-step work plan, also known as a Scope of Work (SOW), will delineate the major activities of the proposed project and the project timeline. Each of the major tasks from the moment of signing the contract with CalSEED to completion of the Final Report should have a realistic time estimate, and should be explained in short, simple sentences.

A passionate and skilled team with expertise directly relevant to the activities described in the SOW is crucial to the success of a project. That's why all applicants are asked to share information about the relevant experience, education, professional certifications, and other qualifications of all key team members, as well as a description of their roles on the project. There should also be a short narrative explaining why each team member is ideally suited for both the whole project and for their specific tasks.

Critical questions to consider as you draft your application

1. Are the activities you propose clearly described in a logical, step-by-step fashion?
2. Are the tasks described in the SOW reasonable in relation to the project budget and timeline?
3. What qualities does your team possess that will enable you to do the proposed work?
4. How likely is it for the team to achieve the anticipated state of innovation based on careful review of the SOW?
5. Does your team have the skills necessary to drive further product development?
6. Why will your team have continued success after CalSEED?

Key Points

- Goals should be achievable by the team you have assembled.
- Keep your audience in mind as Review Committee members are not as familiar with your team or project as you are.
- While experience is appreciated, less experienced teams that show they are prepared and ready to work hard to develop a successful project will also be strongly considered.
- Demonstrated belief in the project is beneficial during review.

Frequently Asked Questions

About CalSEED

What is the primary purpose of CalSEED?
The primary purpose of CalSEED is to address a critical funding gap in the early stages of the energy technology development pipeline. Most entrepreneurs and researchers require multiple rounds of funding over several years to successfully commercialize their new energy invention. To obtain this sustained, long-term funding – either through private capital or large government grants—entrepreneurs and researchers must first demonstrate that their concept is feasible.

CalSEED provides small funding awards to help California entrepreneurs, researchers and businesses prove out the feasibility of new scientific concepts for energy applications. These small funding awards, along with support services, provide a launch pad to help entrepreneurs be successful in their clean energy ventures.

Where does the funding for CalSEED come from?
CalSEED is funded by California Energy Commission's Electric Program Investment Charge (EPIC). The purpose of EPIC is to accelerate the development and adoption of new low-carbon technology solutions for California's electricity sector. To find out more about EPIC and other Energy Commission activities and funding opportunities for research and development, please visit: http://www.energy.ca.gov/research.

How is CalSEED distinct from other funding opportunities through EPIC?
CalSEED awards address a critical gap in the early technology development phase where small amounts of funding can have a significant impact in bringing new energy inventions to market. By contrast, other EPIC funding opportunities focus on later stages of technology development, demonstration and adoption. To find out more about other EPIC funding opportunities, visit: http://www.energy.ca.gov/contracts/epic.html.

How much do you invest?
CalSEED provides Concept Award grants of $150,000 each to 20 – 25 projects each year. Additionally, the CalSEED program holds an annual Business Plan Competition for Concept Award winners. Winners of this Prototype Award competition receive an additional $450,000 in funding.

Frequently Asked Questions

About CalSEED, continued

How often do you accept applications?
There is one call for Concept Award applications annually.

Can I apply for both the proof of concept and prototype grants at the same time?
There are two stages to CalSEED Awards.
1. The first stage is the Concept Award ($150K), and the application window March 7 - 20 is only for this CalSEED Concept Award.
2. The second stage is the Prototype Award ($450K), and only existing CalSEED Concept awardees are eligible to compete for the Prototype Award.

How can I make sure I am notified about important upcoming dates and deadlines?
Make sure to join the CalSEED mailing list found at www.calseed.fund. This will ensure you receive all emails regarding application openings, information sessions, and deadlines.

Should I reach out to a Regional Energy Innovation Cluster?
You are encouraged to take advantage of our cluster partners in your area (see page 37 below), but you are not required to do so for the CalSEED application and your relationship with clusters will not affect the scoring of your application.

Where can I find a map of the four regions?
Click here for a list of counties in each region.

What does it cost to apply?
There is no cost to apply for a CalSEED grant.

Frequently Asked Questions

About CalSEED, continued

Does CalSEED have an office?
CalSEED offices are in Oakland, CA. In-person delivery of applications or in-person meetings or information sessions are not possible.

Is there a person I can call to discuss my application?
Individual information sessions are not possible. Due to the high level of interest and demand in the CalSEED grant opportunity, CalSEED staff are not available for one-on-one applications assistance. The CalSEED team ensures that all information that is made available to any applicant is available to all applicants. Please:

- Watch the recorded webinars
- Attend an Information Session that is open to everyone
- Look at the FAQ at the bottom of the https://calseed.fund/faq/ page

Are the terms and conditions posted on CalSEED's website set in stone or something that can be negotiated if selected for an award?
Unfortunately, these terms and conditions flow down from the EPIC legislation, so it is not possible to negotiate if selected for an award. If you are selected for an award, the CalSEED team will walk through the IP provisions and answer questions. While the CalSEED team cannot give legal advice, it is suggested that you pay close attention to the kinds of technologies these provisions apply to.

Frequently Asked Questions

About Eligibility

Do I have to be in California?
Yes. You must have a California address at time of application to be eligible. You will be asked for your address in the eligibility application; you must list your official business address or, if applying as an individual, the personal address of the lead applicant.

If you are selected to win an award, you must be registered with the appropriate county in California and in good standing with the California Secretary of State before accepting the award. This is not required at the time of the application.

Do I have to be a US citizen?
No.

Can I apply for funding without being a company?
Yes. CalSEED is open to awarding individuals, businesses, non-profit organizations, research institutions, independent labs, community projects, and other collectives.

Am I eligible to apply for CalSEED if I have already received an EPIC award through another program?
Yes, however your application to CalSEED must be for a new concept separate from what was funded under the previous EPIC award. Modifications or advancements to the technology funded under a previous or current EPIC award are not eligible for CalSEED.

I've already been funded by CalSEED. Can I apply again?
Yes and No. A past awardee can be a member of another project team that is applying for CalSEED. A past awardee may not serve as lead applicant on a subsequent application.

Frequently Asked Questions

About Eligibility, continued

Can I apply with the same idea in the next funding round?
Yes, if your project was not funded, you are free to apply up to 3 times.

I have received EPIC funding previously as a subcontractor. Can I respond to this call even if the concept I submit is in the same area as the project I subcontracted for which received EPIC funding?
If the concept you are considering submitting was previously funded by EPIC, even if you were a subcontractor, then it is not eligible for CalSEED. The fact that the concepts are in the same area does not preclude the new idea from funding.

I have two ideas. Can I submit two applications?
No. We only accept one application per lead applicant. You may be on the team for a different application with a different idea, but not as the lead applicant. Similarly, we are only accepting one application per idea – duplicate applications from multiple team members will be rejected.

If I have received other grant dollars or investment funds, will that make me ineligible for CalSEED?
No, but there is a $1M external private funding cap for applicants. CalSEED seeks to fund projects where $150K will have a significant impact on the development of the concept.

Are there any requirements on how the money is spent? Can some go to funding the labor of the inventor, or does it all have to be hard costs on materials, paid to testing sites, outside labor, etc.?
If you are invited to submit a full application, you will be asked to submit a proposed scope of the work that would be funded by the program. There are some restrictions on allowed costs, but the funds can generally be used for most R&D, business development, and other business-related expenses, including labor, fringe, indirect, materials, miscellaneous costs, etc. Funds should be spent in California.

Frequently Asked Questions

About Eligibility, continued

Does this program require any match funding?
No match funding is required and having match funding does not increase your chance of receiving an award.

Does "private" funding include self-funding?
Yes, "private" funding does include self-funding. This includes personal/family funds. And loans

Are loans (i.e money that is structured as debt) also counted as funds that have been raised?
Yes, loans are counted as private funding.

Will you sign an NDA?
CalSEED will not sign an NDA.

If we are not signing an NDA, how will my ideas be protected?
Applications will not be published but will be in the public record and available upon request. We recommend giving enough detail so that the review teams can adequately judge your application without disclosing confidential and proprietary information.

At what point during the CalSEED funding process are the innovations shared publicly?
Applications will not be published but will be in the public record and available upon request. We recommend giving enough detail so that the review teams can adequately judge your application without disclosing confidential and proprietary information.

Frequently Asked Questions

About Eligibility, continued

Is my IP protected in the application platform?
The application platform (SmartSimple) is secure. However, please show discretion when disclosing intellectual property or sensitive information. This goes for any public grant you apply for. It is the responsibility of applicants to present their ideas in a compelling way, while also protecting their intellectual property and sensitive information.

What technology areas will be funded?
For the 2023 Concept Awards, applications are being accepted specifically for seven technology areas: **energy storage, DER integration and load flexibility, transportation electrification, building decarbonization, and industrial decarbonization**. The specific kinds of technologies within these five areas that will be considered for CalSEED awards can be found on pages 7 and 8 above. This table is an exhaustive list of which technology areas are eligible for CalSEED funding in 2023; technologies not in this table are not eligible. This is the list for 2023, and it will likely change next year. If your technology is not on this list, please consider joining the Empower Innovation Network to find out about other public funding opportunities for clean energy technology development.

Is there a specific technology that will score higher than others on the application?
While the 2023 solicitation is limited to the technology areas listed above, none of those areas is weighted higher than the others. Technologies that do not fall within those technology areas will not be considered. CalSEED is not opposed to investing in multiple companies with similar technologies.

Does my project/technology/idea qualify?
CalSEED applicants working on one of the prescribed technologies on pages 7 and 8 and have early-stage innovations, from concept to basic prototype, are qualified to apply. Your project can be a technology, product, or process. We are looking for projects that benefit the providers of CalSEED funds: people in California who pay electricity bills.

Frequently Asked Questions

About Eligibility, continued

Does my project have to be a technology?
Your innovation can be a technology or a concept which advances new science. CalSEED does not fund business models.

Do I need to have a prototype developed by the end of the Concept Award?
No, a developed prototype is not a requirement.

What does it mean to be in good standing with the California State Secretary?
The California Certificate of Good Standing is an official certificate of status issued by the California Secretary of State that confirms authorization of corporations, LLC or LLP to undertake business within the state and further confirm that the corporation has fulfilled all annual reporting and tax payment duties.

We are incorporated in another state, are we still eligible for a CalSEED award?
As the source of these funds is electricity rate payers in California, we do require that all project funds are used in California. To that end, when the panel screens the initial applications, they will make sure that the project address is in California. Your company can be incorporated or headquartered somewhere else, but we do need a project address in California on the initial application.

I have a prototype. Does this disqualify me from applying?
Not necessarily. CalSEED is targeting innovations at the earliest stages of development – from concept to basic prototype. This encompasses innovations at Technology Readiness Level (TRL) 2-4. For further guidance on these TRLs, please consult the table on the next page.

Frequently Asked Questions

About Eligibility, continued

How do I know if my technology is early stage enough for CalSEED?
We use the Department of Energy's definitions of the maturity of a concept, called Technology Readiness Levels, to determine eligibility for CalSEED funding. We are looking to fund early-stage innovations, or TRL 2 - 4. TRL has traditionally been designed for hardware technologies, but we have tried to explain the equivalents for software and integrated solutions in the following table.

DESCRIPTION			
TRL	**Hardware**	**Software**	**Integrated Solutions**
2	Beginning of invention. Once basic principles are observed, practical applications can be invented. Practical applications are speculative and there is no proof or detailed analysis to support the assumptions. Examples are limited to analytic studies	Speculative application; first set of requirements gathered and analyzed; basic principles coded; little to no proof of detailed analysis to support assumptions	Mapping out and researching of commercialized solutions available and beginning to build or code the integrative hardware or software piece(s); applications are still speculative; some analysis has been done to support the hypothesis of market need
3	Analyzed and experimented with critical innovation component as proof of concept. Analytical studies, modelling and/or simulations validate predictions	Implementation, algorithm development and/or coding at limited functionality; software components may not yet be integrated; preliminary requirements defined based on analysis	Analysis or experiments of integrated solution effectiveness performed
4	Validation of basic functionality of component in a laboratory	Alpha version of software solution in preliminary tests; minimal number of users; critical software components integrated; Users and circumstances of software defined	Hardware components of integrated solution identified; early software integration; alpha version of application developed; preliminary testing
OUT OF SCOPE			
1	Basic scientific research based on observed principles		
5-9	Technology works smoothly, is considered operational/debugged; is beyond a large-scale prototype, is currently being manufactured, is certified / commercialized; and/or is successfully incorporated in a larger system, 'beta' versions of software; full scale demonstration; revenue generating or profitable; existing customers		

Frequently Asked Questions

About Eligibility, continued

Is there disqualifying criteria?
If a group or individual does not adhere to the New Energy Nexus Online Interaction Policy, New Energy Nexus reserves thew right to block or remove the group or individual from the online interaction. If unacceptable behavior persists, New Energy Nexus reserves the right to ban the group or individual from all present and future online interactions hosted by New Energy Nexus. This also includes access to New Energy Nexus hosted online grant management systems, such as SmartSimple, effectively making you ineligible for New Energy Nexus administered programs (e.g. grants, accelerators, etc.)

POLICY:

- Unacceptable behavior in online interactions includes the following specific behaviors and analogous behavior patterns:
- Recording interactions without the consent of the individuals participating
- Falsifying an identity in an online interaction, using another individual's or group's username or email address
- Harass or intimidate New Energy nexus staff or other participants in online interactions.
    - This includes but is not limited to broadcasting or directly sending unsolicited messages or repeatedly sending unwanted email
- Attempting to decode password or controlled information using a computer program or other means
- Attempting to break the security on a device, software application, or integrated digital system
- Accessing another individual's system or information within the system without explicit permission.
- Posting or sending commercial messages in online interactions without prior approval

Frequently Asked Questions

About Social Impact & Energy Equity

How does CalSEED define social impact?
Social impact is defined as the economic and environmental benefits of transitioning to clean energy.
More specifically, CalSEED defines social impact as outcomes of innovations that increase access to job opportunities and benefit all California electricity ratepayers through the 5 categories defined by the California Energy Commission's Electric Program Investment Charge program:

- Expand the use of renewable energy
- Build a safe and resilient electricity system.
- Advance electric technologies for buildings, businesses, and transportation
- Enable a more decentralized electric grid
- Improve the affordability, health, and comfort of California's communities
- Support California's local economies and businesses.

Why is impact a key consideration?
It is important that innovations supported through CalSEED consider the broad social benefits to residents of California across economic development, access and inclusion dimensions. This ensures that the funding remains aligned with EPIC priorities. The most important aspect of the application is the benefit the technology provides for California ratepayers.

Frequently Asked Questions

About Social Impact & Energy Equity, continued

How does CalSEED define energy equity?
CalSEED defines energy equity as prioritizing technological solutions that provide affordable access to energy, greater economic opportunities, and enhanced resilience to California's disadvantaged and low-income communities, which face the highest energy and socio-economic burdens. The CalSEED program is committed to building energy equity into the foundation of how grant awardees conceive their clean energy ideas , design their products and run their companies. CalSEED provides training and guidance to awardees on setting and achieving goals that advance energy equity through technological innovation and intentional business practices.

Examples of technological solutions that lead with equity in California's disadvantaged communities are:

- Produce innovations that provide direct cost savings or clean energy access for consumers in DACs
- Improve health outcomes such as reduced air pollution and heat-related illnesses DACs
- Create jobs and economic opportunities in DACs by hiring and training from communities most affected by climate change, and individuals who are underrepresented in the clean energy industry such as women, Black, Indigenous, and People of Color (BIPOC), Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual (LGBTQIA+), residents of rural areas, and veterans
- Include meaningful community involvement and outreach from DACs throughout the development of the innovation through actions such as including community members on advisory boards, planning to increase cap table representation for underrepresented groups, developing respectful partnerships with community based organizations, and/or creating opportunities to pilot technologies in ways that deliver long-term benefits for residents of communities most affected by poor environmental and economic conditions
- Create business plans that facilitate community-owned and operated clean energy projects in DACs where possible

Frequently Asked Questions

About Social Impact & Energy Equity, continued

How does CalSEED define disadvantaged communities?
Disadvantaged communities are communities designated by CalEPA, pursuant to Senate Bill 535, using the California Communities Environmental Health Screening Tool "CalEnviroScreen".

CalEnviroScreen was developed by the Office of Environmental Health Hazard Assessment to identify communities in California most burdened by pollution from multiple sources and most vulnerable to its effects, considering socioeconomic characteristics and underlying health status. To find out more information on California's definition for a disadvantaged community, and to determine where they are located, visit CalEPA's website here: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30.

My company is just getting started, we can't afford to think about social impact. Why is this part of the scoring criteria?
CalSEED is an EPIC grant program. EPIC funds come from electricity rate-payers in California, e.g. electricity customers. As this is a public source of funding, applicants must show how their innovations, when scaled, will bring economic and social benefits to California.

It is not too early to start. The CalSEED team believes that social impact should be built into the foundation of how ideas are conceived, how products are designed, and how companies are run. Additionally, as you speak with impact investors, potential corporate partners, and other government agencies, being able to authentically speak about the social and economic benefits of your innovation can open doors for you.

Frequently Asked Questions

About Social Impact & Energy Equity, continued

How do I know if my project is benefiting California Disadvantaged Area Communities?
Disadvantaged communities need clean energy investments that create healthier environments and reduce the cost of necessities. CalSEED encourages entrepreneurs to develop equitable energy solutions for our most vulnerable populations.

We encourage projects that:

- Prioritize clean energy or sustainability needs (e.g. community-owned and operated energy projects; low-cost energy efficiency programs in disadvantaged communities).
- Increase access to green technologies and resilient infrastructure in disadvantaged communities.
- Create health benefits and economic opportunities in heavily polluted disadvantaged communities.
- Specifically target disadvantaged community for workforce development of clean energy innovations.
- Improve the resiliency and reliability of electricity service impacted by extreme weather-related events (ex. wildfires).

For more information about California's equity goals, see "A Study of Barriers and Solutions to Energy Efficiency, Renewables and Contracting Opportunities Among Low-Income Customers and Disadvantaged Communities".

Will I get extra points for being a person of color, woman, or veteran?
CalSEED applications do not ask for any information on racial identity, gender, or veteran status and thus this information cannot influence an applicant's scoring in the review process.

Frequently Asked Questions

About the 2023 Application

What time on March 5th are the eligibility applications due?
Online applications are due by 11:59 PM Pacific time on March 5th. All mail-in applications must be received by March 5th via registered mail.

How long does it take to complete the eligibility and full applications?
We estimate that the eligibility application will take approximately one hour to complete. The full application may take 3-10 hours. You should expect to spend additional time gathering the necessary documents and paperwork you'll need to fill out the application completely, thoroughly, and thoughtfully.

I was unable to attend an info session. Will a recording be available online?
A recording of the first information session will be available on the CalSEED.Fund website. All Q&A from the information sessions will also be documented and available on the website.

Can I ask for help with the application process?
Assistance is available in the form of information sessions and this application manual. **CalSEED staff are not available for one-on-one application assistance.** For technical assistance with the application platform, please e-mail info@calseed.fund, be aware that due to the volume of requests, response time may be slower than usual during the application period.

The application isn't available. Is there anything I can do now?
Yes. Join the CalSEED mailing list. This will make sure you are in the CalSEED system. We will contact you when the application process begins. You can also join the New Energy Nexus Mailing list and Empower Innovation Network for other opportunities beyond CalSEED.

Frequently Asked Questions

About the 2023 Application, continued

Can I include images or graphs in the application?
No, please describe your concept using text only.

Can I edit my application?
You can 'Save Draft' to preserve your progress in an application, but you cannot edit a submitted application.

Can I edit my application after I submit?
Once you have submitted any part of the application, you cannot go back and edit it. If you have submitted in error, and it is before the deadline, please contact us at info@calSEED.fund to reopen your application. No changes can be made after the deadline.

Can I change my project name?
If you want to change your project name, you must do so by starting a new application. You will not be penalized for doing so since the review team will only review fully completed applications.

What does a Letter of Support entail?
Letters of support can be from partners, potential customers, or acquaintances to serve as references for your project or team. Please note that Letters of Support are not required.

How long do CalSEED projects last?
There is not a set standard length of time for CalSEED awards, but a lot of CalSEED projects last for 12 months, some last only 6 months while others can be 18 months in duration.

Frequently Asked Questions

About the 2023 Application, continued

Is there a template for the Scope of Work?
The online application provides a fillable form for you to enter the details of your Scope of Work. Please use this form as instructed to describe your milestones, tasks, and deliverables. The Scope of Work should describe how you would use a Concept Award.

How long does it take for CalSEED to score full applications?
Depending on the number of applications, the CalSEED team expects the scoring process to take 4-5 months, however this is subject to change.

Will CalSEED request more information after the application process?
Prospective awardees may also be asked for additional information for inclusion in their recommendation package for the CEC business meeting. After approval, Concept Award Winners will be required to develop a Scope of Work and budget for their project. The CalSEED team will provide guidance in the development of these materials.

If I attach something to an email and send it to info@calseed.fund, will it be included with my application?
Only the information that is in the application form online is considered by the expert panel conducting the eligibility screening and the CalSEED Review Committee scoring full applications. Attachments to emails will not be evaluated in the application process.

After submitting the full application, what is the timeline moving forward?
All full applications are scored by the CalSEED Review Committee. The highest scores per region will then go to the CEC for final approval in one of their monthly Business Meetings. We hope this will happen in Fall 2023, after which time the winners will be announced.

I can't log in to the Grant Management Portal. What do I do?
Contact CalSEED at info@CalSEED.fund.

Regional Innovation Clusters

Local hubs for project development resources, including:

- Testing and demonstration facilities, plug-and-play office space, laboratory space and research resources.
- Commercialization assistance, such as market analysis, customer introduction and feedback, investor networking, demonstration centers, business assessment reports and pilot project support.
- Advisory support, such as grant writing assistance, assistance in applying for other accelerators, executive level mentoring, technical feedback, and business plan advice.

LACI

The Los Angeles Regional Innovation Cluster (LACI) is located in the Cleantech Corridor. LACI offers research and development labs, prototype manufacturing workshops, office space, coaching, and mentoring, as well as access to potential investors and a growing network of cleantech experts.

BLUETECH VALLEY

The BlueTechValley Innovation Cluster is located in the heart of the San Joaquin Valley, the perfect proving ground for new water-efficiency and related technologies. Strong partnerships with a number of universities, incubators, grant developers, and acceleration programs enable BlueTechValley to provide a range of technology and business development services.

Activate

In the Bay Area, Activate partners with funders and leading research institutions to support the Activate Fellowship, a new path for entrepreneurial scientists and engineers to transform their discoveries into world-changing technologies.

San Diego Regional ENERGY INNOVATION NETWORK

Cleantech San Diego works directly with cleantech entrepreneurs to develop customized plans that include access to advisory support, technology commercialization services, and proof-of-concept and pilot testing. The San Diego Regional Innovation Cluster specializes in a range of energy technologies, including energy storage, smart grids, solar energy, and electric vehicles.

About Us

CalSEED is administered by New Energy Nexus and funded by the California Energy Commission.

New Energy Nexus is an international non-profit that supports clean energy entrepreneurs with funds, accelerators, and networks. We started in California and also operate programs in New York, China, India, Southeast Asia, and East Africa.

New Energy Nexus strives towards an abundant world with a 100% clean energy economy for 100% of the population in the shortest time possible. To make this lasting change our work must uplift communities around the globe who have been and continue to be left behind by the failed paradigm of a fossil-fuel economy. To do this we fund, connect and grow diverse new energy entrepreneurs and innovators worldwide. We know that focusing on justice and sustainability, while bringing clean energy access for all, will yield greater social and economic dividends. The future of clean energy is 100% for the 100%.

New Energy Nexus is proud to administer the CalSEED program in collaboration with the tremendous ecosystem of partners that brings the program to life.

OUR NETWORK

New Energy Nexus is the world's leading ecosystem of funds and accelerators supporting diverse clean energy entrepreneurs, from emerging tech through to clean energy deployment and adoption.

759
startups accelerated

11
countries

3505
entrepreneurs supported

US$ 43M
distributed in grants & investments

40
programs

5210
green jobs created

>US$1.5B
billion mobilized in investment

POWERED BY NEW ENERGY NEXUS

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