

An Efficiency Program's Guide to CalNEXT Project Selection

How a new efficiency or electrification idea can become an Emerging Technology study

September 15, 2026

Presenters



Zoe Mies

*Scanning & Screening
and TPM Lead*
Energy Solutions



Samantha Putlak

Technology Transfer Lead
Energy Solutions



Greg Barker

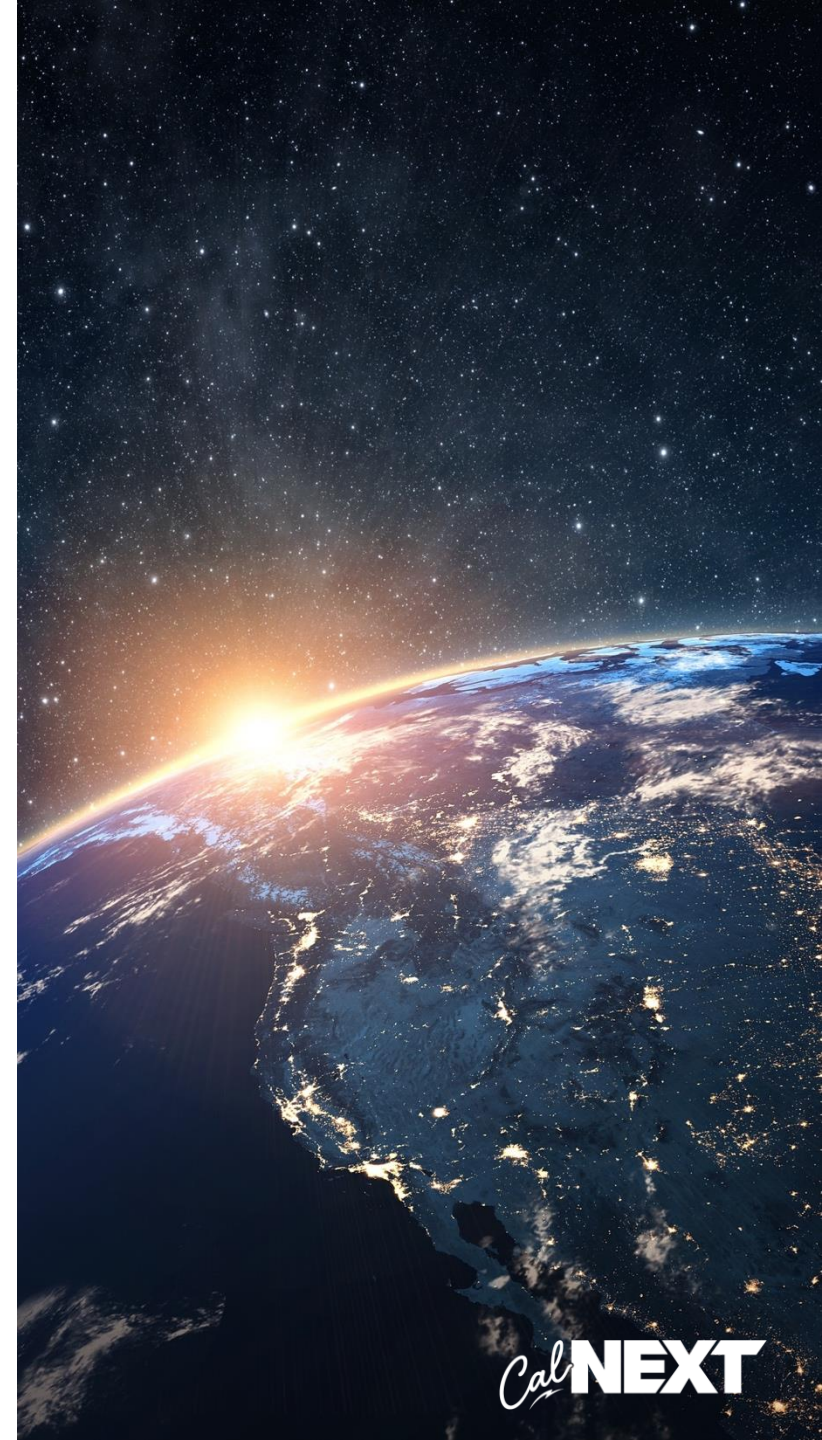
Engineering Fellow
Energy Solutions

Agenda

1	About CalNEXT	5 Min
2	Project Selection & Tech Transfer	15 Min
3	Meeting EE Program Needs	15 Min
3	CalNEXT TPM Priorities	10 Min
4	Scanning & Screening/How to Participate	10 Min
5	Feedback/Q&A	10 Min

California's Electric Emerging Technology Program (CalNEXT)

CalNEXT's vision is to identify emerging technology trends and bring commercially available technologies to the energy efficiency program portfolio.



CalNEXT Partners



Program Objectives

 **Communicate** program priorities to stakeholder community.

 **Scan, Prioritize, Evaluate** technologies and their applications to support increased adoption in the investor-owned utility energy portfolios.

 **Broadcast** results to inform stakeholders, support technology transfer, and advance industry understanding to support large-scale commercial adoption.

 **Advance** California's decarbonization, equity, and grid priorities by incorporating them into research priorities.

 **Execute** emerging technology research projects that support the investor-owned utility energy efficiency portfolios.

The CalNEXT Program



CalNEXT's Project Accomplishments Since 2022

484

Project Submissions

194

Approved Projects

138

Completed Projects:

Laboratory Studies, Field
Evaluations, Market Studies,
Measure Developments, Tool
Developments

Why Engage with CalNEXT?

-  Add to or adjust the measure package offerings for your program
-  Validate efficiency savings for emerging technologies on your program's watch list
-  Address a known gap in market knowledge or technology adoption that may limit future savings claims
-  Engage with IOU program team on your vision of future electrification and efficiency pathways

Technology Transfer



Technology Transfer

If CalNEXT's goal is capturing new opportunities and plugging gaps in technology offerings for energy efficiency and electrification programs...

What opportunities or gaps can we help with for your programs?

Technology Transfer: Key Terms Defined

Technology Transfer

Technology Transfer occurs when stakeholders leverage CalNEXT project findings to impact the energy efficiency portfolio.

Technology Transfer Pathway

The planned sequence of activities a project undertakes to achieve technology transfer, with each pathway representing a distinct mechanism through which energy efficiency portfolio impacts are realized.

Knowledge Transfer

The process of communicating project findings to stakeholders with sufficient clarity and detail to enable portfolio integration.

Emerging technology is more than technology validation. It can be the first step toward getting a new technology recognized, incentivized, and deployed at scale throughout California!

How CalNEXT Turns Program Needs into ET Projects



Developing New Measure Packages

- Efficiency programs and others wanted to be able to claim savings for Residential and Commercial High-efficiency Window Replacements
- CalNEXT funded sequential projects that first completed a market study, and then craft a new eTRM measure package
- **ET23SWE0018 - Commercial Windows Market Study and Measure Package Development** and **ET24SWE0005 - Commercial High-Efficiency Windows Measure Package Completion**
 - SWBE012 for Commercial High Efficiency Windows was published in the eTRM on June 16, 2026
- **ET23SWE0043 - Residential High-Performance Windows Measure Package Development** and **ET24SWE0004 - Residential High-Efficiency Windows Measure Package Completion**
 - SWBE011-01 for Residential High Efficiency Windows was published in the eTRM on May 29, 2026

Adding a new offering to existing Measure Packages

- Efficiency programs were limited to sizes below 29 cubic feet by the Ultra-Low Temperature Freezer measure package **SWCR017**
- The COVID-19 pandemic and other healthcare trends expanded the size range for these products
- CalNEXT funded an effort to update the measure package with larger-size offerings
- This update to the Ultra-Low Temperature Freezer SWCR017-06 was completed in November 2025
- **ET24SWE0016 - Large Ultra-Low Temperature Freezer Measure Offering**

Creating a Standard Calculation Tool for Custom Measure Packages

- A CA IOU was looking to standardize estimation of energy savings for commercial Retro-commissioning (RCx).
- RCx measures have had limited adoption partly due to the complex savings validation
- CalNEXT modeled energy savings via EnergyPlus across various commercial building types and climate zones for RCx measures to create an HVAC Control Sequence Savings Estimation spreadsheet tool.
 - This project will enable scalable adoption: Develop California-specific savings estimates, a site-level energy savings/incentive calculator, and TRM/workpaper support to reduce the cost and uncertainty of identifying and incentivizing high-value HVAC control retrofits.
- You can download and use this tool from CalNEXT.com under project **ET22SWE0043 - Standardized HVAC Sequence of Operations Savings Calculator**

Plugging a Gap in Product Sizing, Rating, or Other

- Heat pump water heater product lines have undergone rapid change in the past decade
- Deemed measure offerings haven't always kept pace. CalNEXT has stepped in multiple times to update offerings
- In 2022, CalNEXT updated measure rules that prevented program claims for residential HPWHs that upsized tank volume, per common manufacturer recommendations
- The next year, a new CalNEXT project added 120V plug-in heat pump water heaters to the same measure packages
- **ET22SWE0036 - Residential Water Heater Sizing Measure Package Support** and **ET23SWE0074 - Plug-in 120V HPWH Measure Package Updates to eTRM**

Piloting a New Program Design and Delivery Model

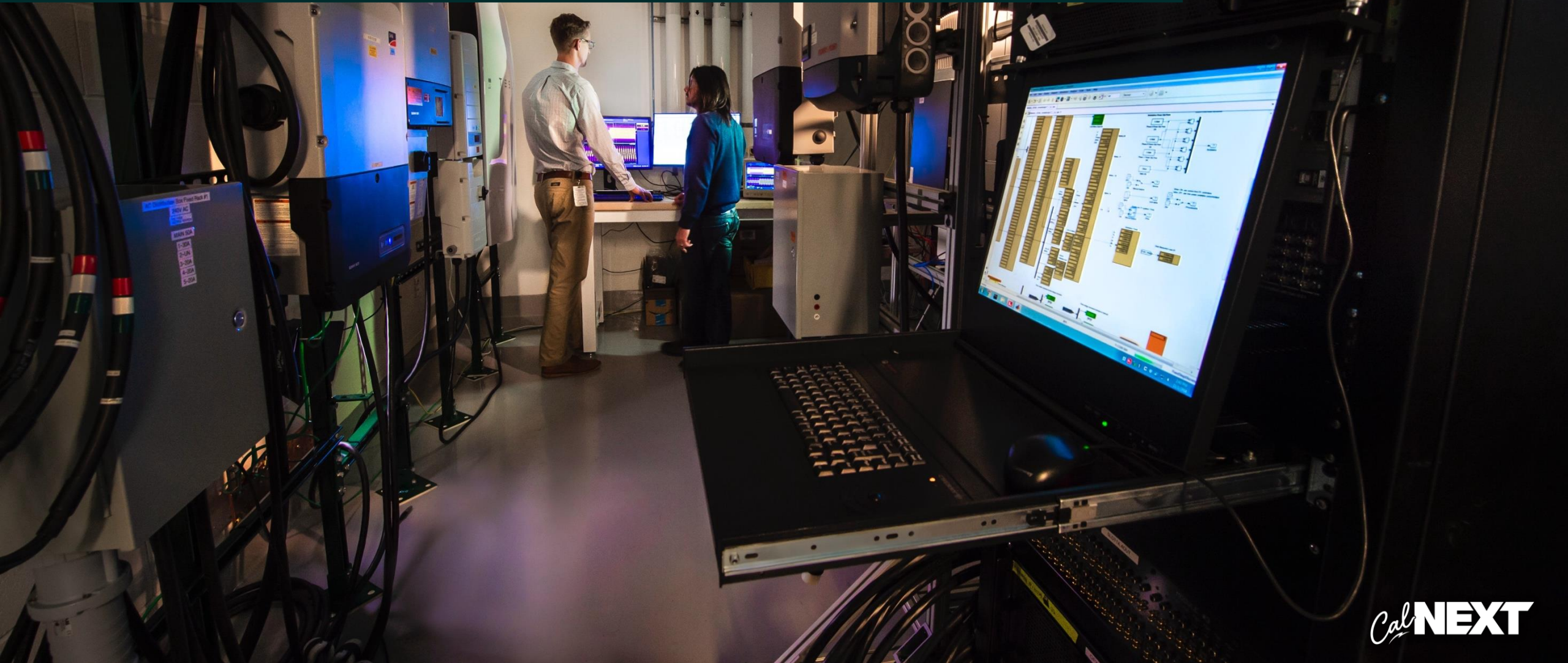
ET25SWE0061 - Decarbonizing Household Appliances: Opportunities and Limitations with 120V Appliances

- CalNEXT piloted a new program approach where homeowners and community volunteers in Los Banos were invited to attend contractor-led trainings that taught them how to upgrade their own household appliances — and help their neighbors do the same.
- CalNEXT provided education and training for 120-volt electric appliances, including room heat pumps, heat pump dryers, and heat pump water heaters.

Adapting to a changing efficiency landscape

- Commercial Foodservice (CFS) efficiency programs were looking at a steep decline in future program savings potential due to both the CPUC's gas incentive phase-out Decision 23-04-035, and anticipated future appliance standards.
- CalNEXT funded a broad market study to thoroughly assess CFS equipment for program savings potential by developing preliminary savings estimates, estimating measure costs and sales volumes, identifying equipment testing needs and fuel-substitution potential, and engaging with market actors to understand market trends and efficiency efforts
- **ET24SWE0032 - New Commercial Foodservice Measure Prioritization**

Matching Program Needs to CalNEXT's Existing Priorities



What are TPMs?



High-Level Framework

Explains the CalNEXT program priorities with annual updates, sorted into six technology categories



External Communications Tool

Defines what CalNEXT research topics we want to fund

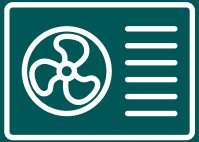


Internal Tool for Screening

20% of score is based on alignment with technology priority maps (TPMs)

About CalNEXT Technology Priority Maps

CalNEXT's vision is to identify emerging technology trends and bring commercially available technologies to the energy efficiency program portfolio.



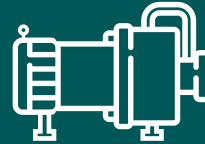
HVAC



Lighting,
Plug Loads
& Appliances



Portfolio
Enhancements



Process
Loads



Water
Heating



Whole
Buildings

Technology Priority Map Alignment and Portfolio Priority

Icon	Meaning
 Future Needs	Covers items that are not yet ready for consideration due to having high needs in validation, market analysis, measure development, or program development. Programs should not be discouraged from submitting proposals for research initiatives with a “Future Needs” classification but instead focus on making a strong argument for how the project outcomes can help fill in the missing gaps for validation or market analysis.
 Low	Covers items that have lower industry interest and/or uncertain impacts for energy efficiency due to having an expansive data set or information readily available or not being pertinent to the research initiative.
 Medium	Covers items that are an evolution or offer promise to existing and common technologies for energy efficiency. This can be in the form of needs that are currently being addressed with existing projects or needs that may exist but are not critical to the objectives of meeting efficiency metrics.
 High	Covers items that have high industry interest and high impacts for energy efficiency.

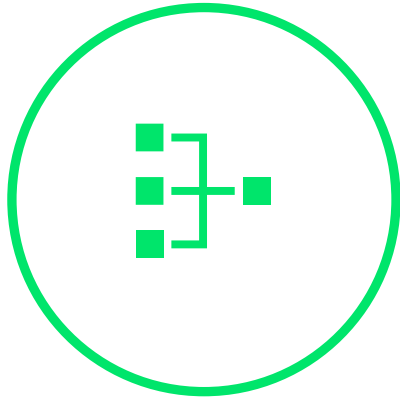
TPM Alignment and Portfolio Priority

- **TPMs** – Project needs to objectively align with Technology Priority Map (TPM) technology family and its priority level. Note that a project may align with multiple TPMs, it is intended that this criterion apply to the highest priority technology family that applies to the project
 - Projects will be scored on alignment with new Research Initiatives ranking system
 - High needs will be seen as highest priority; however, a project is not discounted if it falls into other "needs" rankings
 - Note that a project may align with multiple different Research Initiative types in the research initiative table and will be evaluated based on where most of the project work is expected

How to Participate



What is Scanning & Screening?



Intake Process

Path to submit ideas for consideration



Prioritization Method

Evaluating submissions to prioritize projects that bring the most value to the program

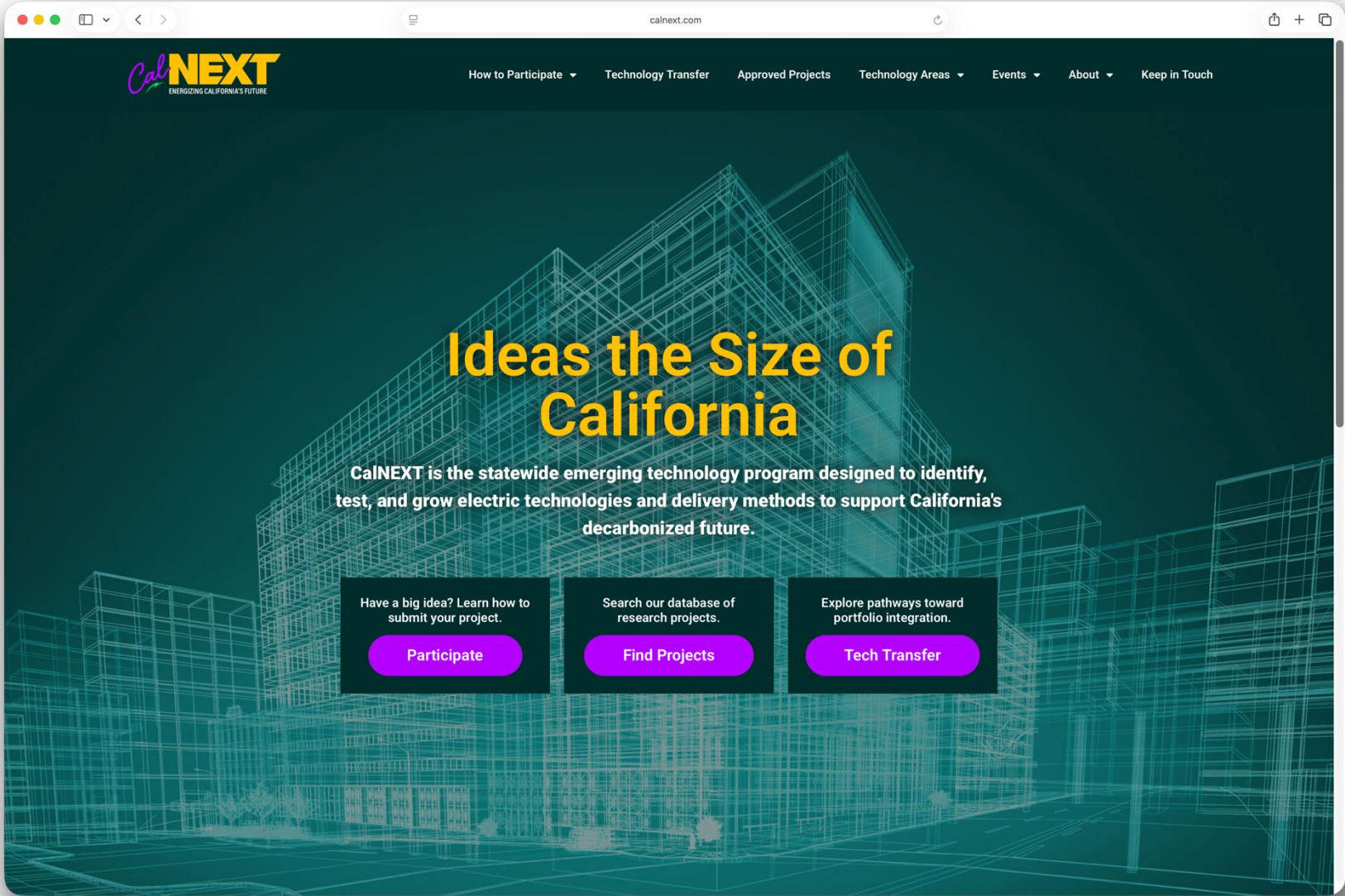


Portfolio Builder

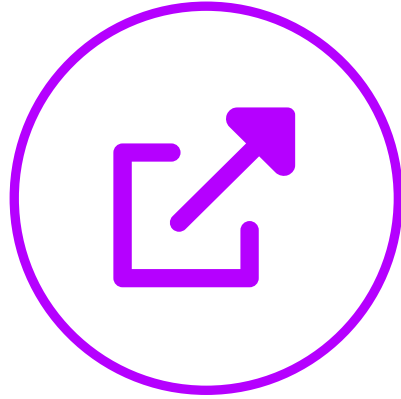
Process for responsibly meeting program portfolio targets, on time and within budget

Project Submission Prioritization Criteria

Criteria	Weighting	Details
TPM Alignment/Portfolio Priority/Technology Transfer	30%	How well the project aligns with the CalNEXT TPMs, if the project is a high priority project, and quality and opportunity of technology transfer proposed
Energy Efficiency Program Benefits	10%	Whether the project has benefits for efficiency portfolios, load flexibility and/or grid decarbonization
Project Quality	45%	Clarify of scope, how innovative it is, whether it's ready for implementation, has a clear market strategy, and has a reasonable timeline
Cost	5%	Estimated budget
DAC/HTR Impact	10%	Whether the project has benefits for the utilities and affects Hard-to-Reach/Disadvantaged Communities

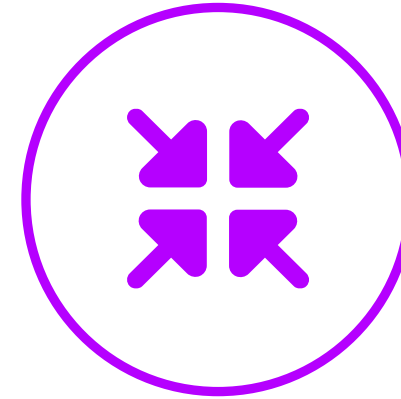


Project Types



Technology Support Research

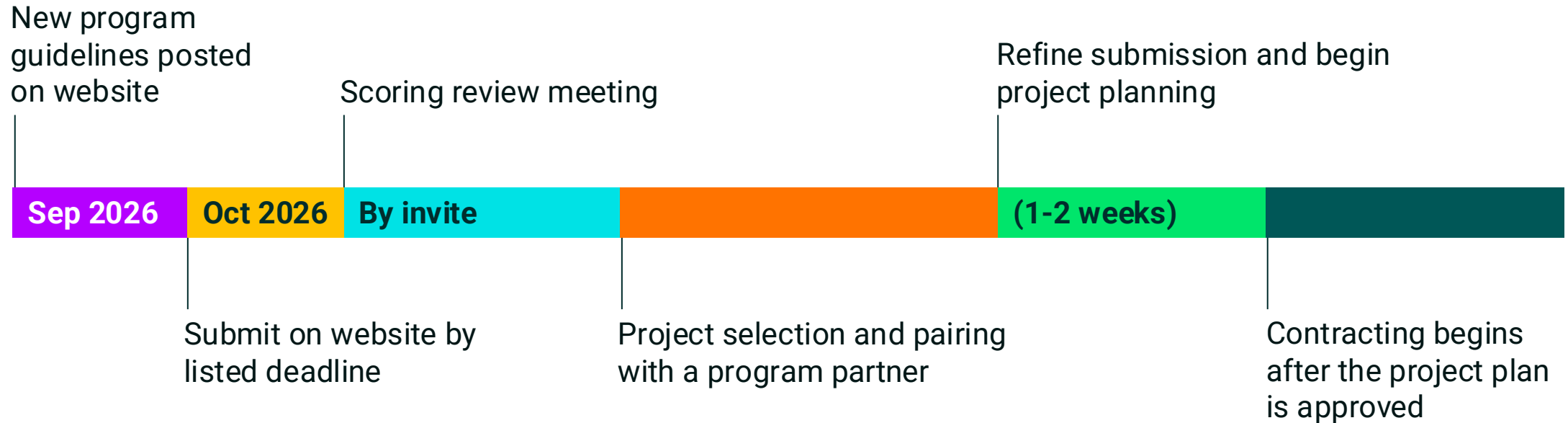
Projects focused on addressing market barriers or developing the commercial capability of *market-ready technologies*.



Technology Development Research

Projects focused on addressing market barriers or developing the commercial capability of *early-stage technologies*.

Project Selection Process



Project Submission



Submit an Idea



Submit a Project

****Updated guidelines and submissions forms will be live on CalNEXT.com around October 1, 2026**

Technology Transfer cont.

Why Electrification Programs Monitor Emerging Technology Findings

- Identify scalable technologies that can accelerate electrification, studies and ready for adoption
- Reduce deployment risk by learning from real-world M&V
- Improve program design using performance and customer insights
- Anticipate market shifts and emerging customer needs by staying ahead of new technology research
- Inform incentives and implementation strategies



Q&A





Thank You!

info@calnext.com

Cal **NEXT**