Guidelines for Rocket Fund Applications – 2022

Awards: $25,000 - $75,000, with the opportunity to apply again

Eligibility: Incorporated or in process; raised no more than $3 million equity investment; students & new graduates as well as garage entrepreneurs welcomed; fits technology scope of the Fund; national and international companies qualify as long as entity has interest in establishing California presence; customer site for prototype demonstration either arranged or being finalized, intended to open up an initial market and lead to customer orders or new investment; estimated timeframe for designing, and building the first commercial prototype for testing with customer: 9 – 12 months from time of receiving the award.

We look for:
- Strong, third-party validated technologies (e.g. patents, university research, DOE national lab e.g. NREL, ARPA-E or Electric Power Research Institute (EPRI) data, utility field testing or UL certification) or innovative software platforms with early demonstration of market value
- Clear idea of the value proposition of the product, market segments and target customers
- Well-defined use of Rocket Funds with potential customer providing a test site for your technology demonstration
- Strong IP - provision as well as awarded

Diversity and Inclusion: In 2021 the Rocket Fund established a commitment to strengthening diversity and female leadership as well as to spreading the benefits of cleantech and sustainability to more communities. A significant portion of the scoring during the competition will address this challenge. Please ensure you describe fully the factors that show your company's commitment to diversity and inclusivity: current leadership, new initiatives, technology features or corporate policy changes that indicate you are considering how to enhance your approach to this challenge.

Scope: The Rocket Fund provides competitive grants for funding early commercial prototype development (TRL 5 – 7, DOE*) in cleantech and sustainability startups. Rocket Fund covers: Initial product design; commercial engineering; prototype build out; prototype installation; field testing; equipment purchase; select consulting support for specialized tasks such as programming user interfaces and manufacturing process development and scale up; product certification; lab testing for technology/product validation and manufacturing.

* From the Electric Power Research Institute, based on Department of Energy Information

	TRL (Technology Readiness Levels)
1	Exploratory research transition basic science into laboratory applications
2	Technology concepts and/or application formulated
3	Proof of concept validation
4	Subsystem or component validation in laboratory environment to simulate service conditions
5	Early system validation demonstrated in laboratory or limited field application
6	Early field demonstration and system refinements completed.
7	Complete system demonstration in an operation environment.
8	Early commercial deployment
9	Wide-scale commercial deployment

<u>Rocket Fund Target Sectors:</u>

Rocket Fund 2022 Tracks

Track 1: Integrated Resilient Grid and Decarbonized Energy Systems
Energy resiliency, smart and micro grids, information technology and AI
Long duration storage, including hydrogen energy
Short duration battery storage innovations
ZEVs, BEV batteries, and BEV integration and charging management
Zero-carbon electricity generation including distributed generation, fuel cells, hydrogen turbines
Grid and pipeline coupling
Dispatchable hydrogen production
Grid hardening for wildfire mitigation

Track 2: Green buildings and Materials
HVAC
Smart building controls, advanced automation and control of energy flexible load
Advanced building envelope, including building electrification
Green materials – including CO_2 conversion to building materials
Advanced water heating
Nanogrids, distributed generation, energy resiliency
End use energy efficiency and demand response

Track 3: Hard to decarbonize
Zero-carbon fuels/chemical/hydrogen for heavy transport, commodity use
Zero emissions off-road transportation (rail, marine, air, construction, agriculture, materials handling)
Decarbonized heat for industry
Industrial materials processes: steel, cement, plastics
Ag industry decarbonization processes
Carbon capture and repurposing
Industrial processes electrification
Renewable methane, methane leak detection

Track 4: Environment
Water management
Precision/smart/sustainable agriculture
Waste-to-energy (e.g. biomass conversion)
Air quality monitoring, wildfire mitigation, rewilding, regenerative agriculture
Carbon dioxide removal, including direct air and ocean capture

Track 5: Moonshot
Plant-based carbon sequestration
Other
RSI Office of Entrepreneurial Programs 11.07.21

<u>Application Deadline:</u> Rocket Fund applications will be open November 15 – March 4, 2022. Note: we welcome Rocket Fund applications throughout the year; those arriving after the deadline will be considered in the following Rocket Fund intake. The review process and awarding of grants follow closure of the application process. Register with The Rocket Fund program for announcements: stephanie.yanchinski@caltech.edu

The Office of Entrepreneurial Programs, Resnick Sustainability Institute, November 2021