ROCKET FUND - 2018

CalSEED/BlueTechValley Information Session
JANUARY 26, 2018
Caltech’s Studio for Sustainability
Two Programs

First Look West (FLOW) – business plan challenge for early cleantech entrepreneurs, sponsored by the Department of Energy

Rocket Fund – granting program for building commercial prototypes and field testing with customers, sponsored by California utilities
FLOW Offers

Apply: www.flow.caltech.edu

$100K+ in Prizes, present at DOE Nationals
DOE Prize: $50k - student, new grad startups
NEW, DOD track: military cleantech technologies
IN-LA Blitz NSF I-CORPS boot camp
Channel to Rocket Fund grants
FLOW 2018 DATES

Apply: www.flow.caltech.edu

Midnight, February 28: Online Submissions Close
March 1-3: Round 1 Screening
March 5, 12, 19, 26: IN-LA Blitz Bootcamp
April 20: Round 2, Semi-Final, in LA
May 24 Final, at Caltech
FLOW Snapshot

1,000 entrepreneurs, 30 universities, 19 states

Helped launch more than 20 companies

New Ventures’ follow on funding close to $80 million

2 acquisitions, by big clean energy players
Rocket Fund

**Founded 2015:** by Emerging Technologies Coordinating Council of utilities, the Moxie Foundation and Caltech

**To date:** 14 grants, close to $400,000 awarded

**Companies funded (selection):** Axiom Exergy, Xstream Trucking, CalSEED: South 8, BK Litec, PowerFlex, Fluency Lighting
Rocket Fund Free, Fast, Flexible

$10,000 - $75,000 grants, non-directed, unencumbered
No IP required, non-dilutive
Fast: application to receiving award – 6 months (maximum)
Flexible: minimal reporting requirements
Work closely with utility experts who understand the market
Access to utility matching funds, testing facilities
Rocket Fund Covers

Equipment purchase

Engineering design: design software, product engineering consulting

Prototype building

Software programming – grid data & management; IOT

Certification services and testing

Consulting services – manufacturing process
Rocket Fund Scope

**Energy Track:** utility five year plans and roadmaps; CEC technology cluster and CalSEED priorities

- Energy efficiency
- Energy Storage
- Grid management
- Distributed Energy Resources (DER)
- Food processing
- Water/energy nexus
- Ag/energy nexus
- Software and energy data management

**Sustainability:** Everything else except environmental; CEC and DOE priorities

- Renewable Energy generation – wind, water, sun
- Waste heat conversion
- Biofuels
- Advanced transportation
- CO2 mitigation
- Energy efficient manufacturing
- Desalinization
- Energy efficient materials
De-risks Technology
Rocket Fund Benefits

Key Partners

[Logos of various partners including EPRI, Wells Fargo, ANSYS, Caltech, and others]
Rocket Fund Process

Apply: http://www.flow.caltech.edu/rocket-fund

Four-stage application process
Timeframe: application to award - six months
Operates like any grant: set milestones against payments
Project timeline: 9 – 12 months from award
Multiple applications welcome but not in same year
Stage 1: Application

What we look for:

Validated Technology
Competitive Value Proposition
Market size: MVP, TAM and SAM
Customers identified
Staged Use of Rocket Funds
Deadline: April 30, 2018
Stage 2: Due Diligence

What we look for

- Technology Development
- Technology/product, how it works
- Product lifecycle position, IP
- Development challenges
- Manufacturing Process
- Describe the process
- How to scale to full production
- Customer, Industry Partners, Path to Commercialization
- Describe target customer
- Complaint being addressed
- Economic, Business, Market Outlook
- Cost projections, competitive assessment
- Market size, market share
- Impact
- Energy savings (e.g. kw projections); impact on greenhouse gases, decarbonization; water use reduction or efficiencies

### Rocket Fund Application 2018 - Due Diligence Worksheet

<table>
<thead>
<tr>
<th>Entity Information</th>
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<tbody>
<tr>
<td>Entity Name:</td>
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<td>Entity Type:</td>
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<tr>
<td>Entity Description:</td>
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<tr>
<td>Technology Name:</td>
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<tr>
<td>Website:</td>
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<tr>
<td>Year Founded:</td>
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<td>Primary Location:</td>
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<td>Company Info:</td>
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<td>Policy Tag(s):</td>
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<tr>
<td>Key Words:</td>
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<td>Recent News:</td>
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#### Assessment Summary

- Prelim - Technology Assessment
- EPRI Self Agg
- Technology Readiness Level (TRL): 0
- Manufacturing Readiness Level (MRL): 0
- Time to Commercialization (yrs.): 0

<table>
<thead>
<tr>
<th>Key Insight/Impact</th>
<th>Key Limitations</th>
<th>Signpost Next-Steps, Opportunities for Engagement</th>
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<tbody>
<tr>
<td>Technology/Process, how it works</td>
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Stage 3: Pitch Day

Rocket Fund Review Committee – Utility, Entrepreneurs, Business

What We Look For:

Technology validation, performance data
Clearly articulated customer & market focus, plan of attack
Outline of plans for field trials with customers
Use of funds – staged in $75k, $50k, $25k tranches
Manufacturing plan including cost analysis of eventual product

The ask: how we can help – utility technical support, testing, connections to potential customers
Stage 4: After the Win

**Negotiation**
Memorandum of Understanding - non-legally binding  
Agreed Goals and Milestones, payment schedule, timetable  
Metrics: energy savings, # field trials, # customers & LOIs, additional funding attracted

**Reporting**
Quad Report: monthly while project lasts  
Teleconferences: per negotiation  
Metrics – beginning of project, mid-way, the end  
Payments will depend on hitting milestones
Rocket Fund, Results

14 awards made to date across a wide range: peak shifting energy storage, irrigation technology, novel lighting technologies (IOT, laser lighting), EV charge management, DER & microgrid, trucking device for saving energy for long haul vehicles

2 companies raised seed rounds of $2.5 million

3 companies have multi million dollar customer contracts

4 companies secured $1 million+ in ARPA-e, SBIR grants; 3 CalSEED Awards
A Rocket Fund Awardee

- 2015: FLOW First Prize
- 2015: Rocket Fund
- 2015/16: Pilot with SDG&E, SCE, Walmart
- Con Edison $5m contract
- 2016/17: Raised>$5.0 m
  1st and 2nd rounds
Information

FLOW: http://www.flow.caltech.edu/

Rocket Fund: http://www.flow.caltech.edu/rocket-fund

Caltech: Stephanie.Yanchinski@caltech.edu