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Cleantech LA Program: Innovation Grant

Pool

Summary The grant pool will provide grants to clean technology entrepreneurs that have bench-validated technology but lack the skills or resources to create a commercial venture. Grants will range in size from \$25,000 to \$250,000, which could be enhanced by public matching funds. Grants avoid the complexity of equity investing and eliminate friction in the fragile process of company formation.

The Grant Pool will engage five key constituencies:

- Industry: contribute money and clearly define technology needs in exchange for the opportunity to steer funds towards early-stage innovators working on relevant problems;
- Public agencies: match industry funds granted to those innovators who are commercializing technologies that can be deployed to meet specific regulatory mandates;
- Professional investors from cleantech-focused venture capital funds: provide investment expertise and build relationships with the upcoming generation of cleantech companies;
- Universities: through technology transfer offices, provide access to their innovation community, leading to more, and more profitable, commercialization;
- Emerging cleantech innovators: receive funds, exposure, and market reassurance that their technology is solving commercially important problems.

Cleantech LA, by administering the grant pool, will initiate and foster interaction among these constituencies that will build a community of better connected institutions and people.

The Grant Pool will 1) provide very early-stage companies with needed capital; 2) establish connections that endure based on shared interests; and 3) demonstrate the same quality of due diligence performed by ARPA-E on its projects to inspire angel and venture capital to invest at this early stage of commercialization.

Program Context

Cleantech entrepreneurs with pre-commercial but bench-validated technology must overcome a number of hurdles to build a business. These obstacles stem from traditional technology transfer practices at universities, the reticence of industry to reveal its research agenda, and the changing focus of the venture capital industry to later stage businesses. The Grant Pool is intended to address each of these challenges in the Los Angeles basin. Many universities have technology transfer offices to encourage and formalize the transfer of commercially applicable science. Licensing is often the means by which “tech transfer” occurs. This is sensible, as building a business is time intensive, frequently capital intensive, and prone to failure. Further, building a business requires space and business expertise, two attributes not readily available at many academic institutions.



However, too great a focus on licensing has a number of pitfalls. While a low risk/return IP-based strategy to tech transfer may minimize cost and effort, it's unlikely to maximize return. Further, such a strategy is largely divorced from local and regional economic development needs, which was one of the subsidiary goals of the 1980 Bayh-Dole Act. In fact, universities that do not develop a robust local technology community may find themselves at a long-term competitive disadvantage relative to research institutions that do. Increasing the quality of communication among industry, research institutions, and innovators is a key component of improving technology transfer. Industry has market-making abilities through its ability to purchase from, license, prototype, validate, or outright acquire companies. But given competitive threats, most industry keeps research problems confidential and has, as a result, adopted inefficient means of engaging with external innovation. Some of these methods include investing in venture funds to gain visibility into a specific fund's investment deal flow, using webinars to share highly edited versions of their research agendas, funding postdocs in labs conducting interesting research, publishing Open Innovation portals, or engaging directly with the university technology transfer officers in a mediated and often ineffective search for relevant capabilities. Indeed, revealing research needs is highly sensitive; there must be consistent, real benefits in order for competitive organizations to disclose such confidential information. A framework that provides a safe forum for industry to articulate research needs, to multiple innovators and institutions at the same time, will reduce the "pain." In turn, this creates a virtuous circle, increasing the benefit; better articulated needs will lead to the presentation and discussion of more relevant research, if not spur early stage innovators to focus on more relevant topics.

Establishing such a framework is in the interest of the universities as well, as it will help reduce the randomness inherent in the current process. Now, the emergence of any particular technology is heavily dependent on the entrepreneurial drive and determination of the individual professor or student. As a result, many ideas are left unexploited. With a clearer understanding of what is commercially important, as part of a process that proactively identifies science with commercial applications, fewer ideas will be left on the bench. The dynamic is similar, if not identical, for non-university generated technology startups. Since a cleantech startup may pursue a technology for a number of years, and not have the ability to pivot and change focus quickly, understanding real needs is especially valuable. The Cleantech LA Grant Pool is intended to build the framework that addresses these problems. The needs and benefits of the key constituencies, with what they must contribute to the process, are summarized as:

Process The fundamental concept of the Grant Pool is that money, in the form of small grants administered by professional investors, will draw together industry, research institutions and innovators into a process that benefits the whole community.

Constituency	Need	Contribution	Benefit
Industry	<ul style="list-style-type: none"> -Relevant technology -Insight on next generation technology 	<ul style="list-style-type: none"> -Money -Statement of needs 	<ul style="list-style-type: none"> -Ability to “steer” company formation toward technology needs -Right to benefit if concepts developed to commercial success -Insight on next generation technology
Public agencies	<ul style="list-style-type: none"> -Technical solutions 	<ul style="list-style-type: none"> -Matching industry 	<ul style="list-style-type: none"> -Commercialized technologies that



Constituency	Need	Contribution	Benefit
	that offer a pathway to solving regulatory requirements	funds to leverage industry involvement	solve mandates
Professional investors	-Insight on next generation technology -Information on company formation and entrepreneurs in the region	-Time and expertise	-Insight on next generation technology -Visibility w/ emerging technology entrepreneurs -Reputation enhancement
University	-Better tech transfer -Local tech community	-Access to innovators	-More tech commercialized -Higher proportion of tech transfer via company formation vs. licensing -Development of local tech community
Cleantech entrepreneur	-Money -Expertise -Market feedback -Community	-Concept/science -Access to innovations	-Seed money -Introduction to the local start-up community -Introduction to the local investment community -Introduction to the key industry players

The proposed process is as follows:

1. Fundraising and administration. Industry partners commit funds, ranging from \$75,000 to \$250,000 per year, for five years to establish and then sustain the grant pool. Cleantech LA will launch the Grant Pool once it has received sufficient commitments to sponsor at least 10 concepts/companies at the \$50,000 to \$100,000 range. As this is not an equity fund, administration of these funds will be straightforward and not require expensive overhead.
2. Private meetings. For industry partners, Cleantech LA will convene one or more private meetings with a carefully reviewed and approved invitation list. The technology scouts from each industry partner will present to the group, discuss needs, brainstorm solutions, review existing capabilities, and discover



promising ideas. Most importantly, they will engage directly with the right people in a single, focused meeting, enabling further one-on-one contact.

3. On-site visits. Cleantech LA will partner with universities and the LA Cleantech Incubator to provide desk and office space, for extended durations, at each location to enable discussion of ideas with entrepreneurs, faculty and others in an unstructured way. These rotations will resemble “executive in residence” (EIR) programs in other industries.
4. Sponsorship. After meeting with and understanding a given entrepreneur’s technology, industry partners — staff who have been given a corporate charter to engage with the innovation community — can choose to nominate them for consideration by the Grant Pool Investment Committee. This “sponsorship,” an act as simple as an email request, is the only thing that will initiate a grant making process. The number of sponsorships each industry partner is allowed per year depends on their committed funds and their success in making recommendations.
5. Investment Committee. The investment committee is comprised of cleantech-focused venture capitalists who are assisted by a group of Cleantech LA Grant Pool Fellows drawn from local business, engineering and science graduate programs. These (paid) fellows conduct technical and market analyses to determine whether the entrepreneur/startup merits an investment. Each startup will be expected to present, at minimum, a rudimentary description of the technology, expected benefits, and a budget. Recognizing that not every entrepreneur will have this information prepared, all startups will have the opportunity to receive a small stipend from the Grant Pool to engage LA Cleantech Incubator staff to assist. The investment committee will decide how much each startup receives. Grants can be to individuals and/or companies.
6. LACI membership. Each grantee is awarded automatic entry into the LA Cleantech Incubator, with access to low-cost space, high-value network, and professional resources.
7. Development & follow-up. Each grantee will report progress against milestones and participate in periodic in-person reviews with Incubator staff and industry partners. Grantees will be eligible for further grants if merited.
8. Strategic investment opportunity: Sponsoring industry partners will receive, in exchange for having sponsored a successful grantee, the right to invest at the first institutional round of investment and also to have right of refusal rights on any form of investment or dissolution.

Metrics We will measure our success by:

- 10 Startups initiated / supported by the Cleantech LA Innovation Grant Pool (quantity, value, jobs)
- 12 Third-party investments in these startups (quantity, value)



- ⑩ Industry partners recruited to join the Cleantech LA Innovation Grant Pool (quantity, amount of financial commitment, number of “needs statements”)
- ⑩ Educational/research institutions
- ⑩ State / federal matching grants (quantity, match ratio)
- ⑩ Success of grant recipients (progress in technology, business formation, etc.)