Business Plan Timeline

October '13	CEI Advisory Council
January '14	Innovation Workshop
March '14	First Module Drafted
August '14	Last Module Completed
October '14	Engineering College Counci



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Business Plan Modules

- Mission/Vision/Approach
- Areas of Concentration
- Metrics/Objectives/Goals
- Market Segmentation
- Competitive Assessment
- Value Proposition
- "Product" Offering



Mission

CEI brings together people with diverse capabilities (faculty, students, alumni, external partners) in pursuit of a common purpose:

Creating the capacity to conceive, develop and deploy sustainable solutions, to meet the world's critical energy challenges.



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Approach

- Educate
- Innovate
- Implement
- Engage



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Areas of Concentration

- Subsurface Systems
- Biofuels and bioproducts
- Aerodynamic and Hydrokinetic Energy
- Community energy usage
- Advanced Materials and Storage



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Value Proposition

A statement of <u>features</u> and <u>benefits</u> that are

✓ Relevant

- ✓ Compelling
- ✓ Unique



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Why Cornell?

- Institutional Commitment
- Land Grant University
- Multidisciplinary, systems approach
- Breadth of Academic Disciplines
- Distinguished Faculty
- Outstanding Students



Sustainable Energy Partner

- Limited to 10 Partners
- \$XX/yr for YY years (renewable)
- Semi-annual program reviews
- Member of proposal review board
- Facilitated access to students and faculty
- Rights to IP produced from programs [limited?]
- Participation in "Living Laboratories" demonstration projects
- Invitation to attend/speak at annual Energy Forum



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Advice from the Council

- Based on what you've seen, would you invest in CEI? What would make you more inclined to invest?
- 2. What \$, for how many years would be appropriate to ask of Sustainable Energy Partners?
- 3. What else should we consider to attract external partners?



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Back ups & & Alternates



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The "Living Laboratory"

Rapidly Deploying Sustainable Energy Solutions

- Engage with external partners
- Balance social, economic, environmental, technical aspects
- Acquire real world data
- Shorten cycle time to scale
- Give students valuable experience



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Vision

CEI is regarded as a world leader in sustainable energy systems

- Standard for multidisciplinary teaching and research
- Draws on the breadth of Cornell's co-located capabilities
- Faculty staffed with sustainable energy thought leaders
- Students are highly sought after and very successful

CEI attracts partners from all sectors

- Local, state & federal government
- Industry
- NGO's
- Private foundations

CEI has strong credibility with all stakeholders

- Rigorous, fact-based science and engineering
- Transformational systems approach to complex problems
- Informs communities on their potential energy choices, without bias
- Neutral forum to discuss critical energy issues



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Metrics/Goals/Objectives

<u>Area</u>	Objective	Metric
Educate:	Graduate students with a sustainable energy skill set, resulting from direct involvement with CEI sponsored research and education	# MEng degrees # PhD candidates
Innovate:	Engage the faculty to conduct multidisciplinary, novel research.	# CEI Fellows #Multi-investigator programs by CEI Fellows
	Recruit leading experts to the faculty.	# CEI recognized energy experts in residence # Energy faculty hired
Implement:	Deploy new concepts in "living laboratories".	# Projects # Commercial apps
Engage:	Advise the public and policy makers re energy use choices.	# Engagements
	Involve public and private partners in support of CEI's work.	# Partners
	Secure financial support from partners. (all \$ on annual basis, from all sources))	-Sponsored research -Faculty seed grants -Graduate fellowships -CEI operations (faculty recruiting, education, program

development, cost sharing)



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Value Proposition

Features	Benefits	Evidence
Institutional commitment to sustainability at Cornell and in society The only Ivy League Institution with a Land	Assurance that top talent will focus on a University-wide priority. Depth and breadth in all key academic	Investment in combined cycle power/heating plant. Lake source cooling. Investment in ACSF. Climate Action Plan. Synergy with ACSF. Utica Sustainable Communities Project.
Grant mission ("Knowledge with a Public Purpose")	disciplines on a single campus. Ability to take on big challenges. Opportunity to apply new ideas at scale. Increased return on investment (both time and \$).	NY Tech Campus.
Multi-disciplinary, systems approach	Opportunity to tackle complex problems, take on tough issues.	Earth-Energy IGERT program Algal biofuels/animal feed program. Effect of wind power on avian/marine populations. AVF grants from ACSF.



Value Proposition

Features	Benefits	Evidence
Access to talented,	Graduates become	Highly sought students.
well-trained	immediately productive	Success of student
students	employees.	competitive teams.
Collaborative	Opportunity to interact with	ACSF IP policy.
research/analysis	talented faculty and students	
	on problems of mutual	
	interest. Access to any IP	
	created.	
Sponsored	Efficient way to extend	
research/analysis	internal capabilities.	
Energy	A neutral venue to explore	
forums/symposia	sustainable energy issues.	

