
Community Assessment of Renewable Energy and Sustainability (CARES) Venture

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Best Lab

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Agenda

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- Goal of CARES
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- 5 Year Strategic Business Plan Outlook
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About Me

- Home: Letohatchee, AL
- 3rd yr. doctoral student in Mechanical Engineering
- Research Focus: Sustainability, Product Design, Expert Systems
- Graduation: May 2011

Introduction to CARES

- CARES is an engineering and sustainability assessment organization that is composed of engineering and architectural graduate and undergraduate students at the University of California, Berkeley
- Active Team Members:
 - 4 Graduate Student Researchers
 - 12 Undergraduate Student Researchers
- Disciplines:
 - Architecture
 - Mechanical Engineering
 - Environmental Design and Planning
 - Civil Engineering
 - Bioengineering
 - Industrial Engineering and Operations Research

Mission of CARES

- Mission: enable consumers and stakeholders to make informed decisions about sustainability and renewable energy technologies



finding, evaluating, a



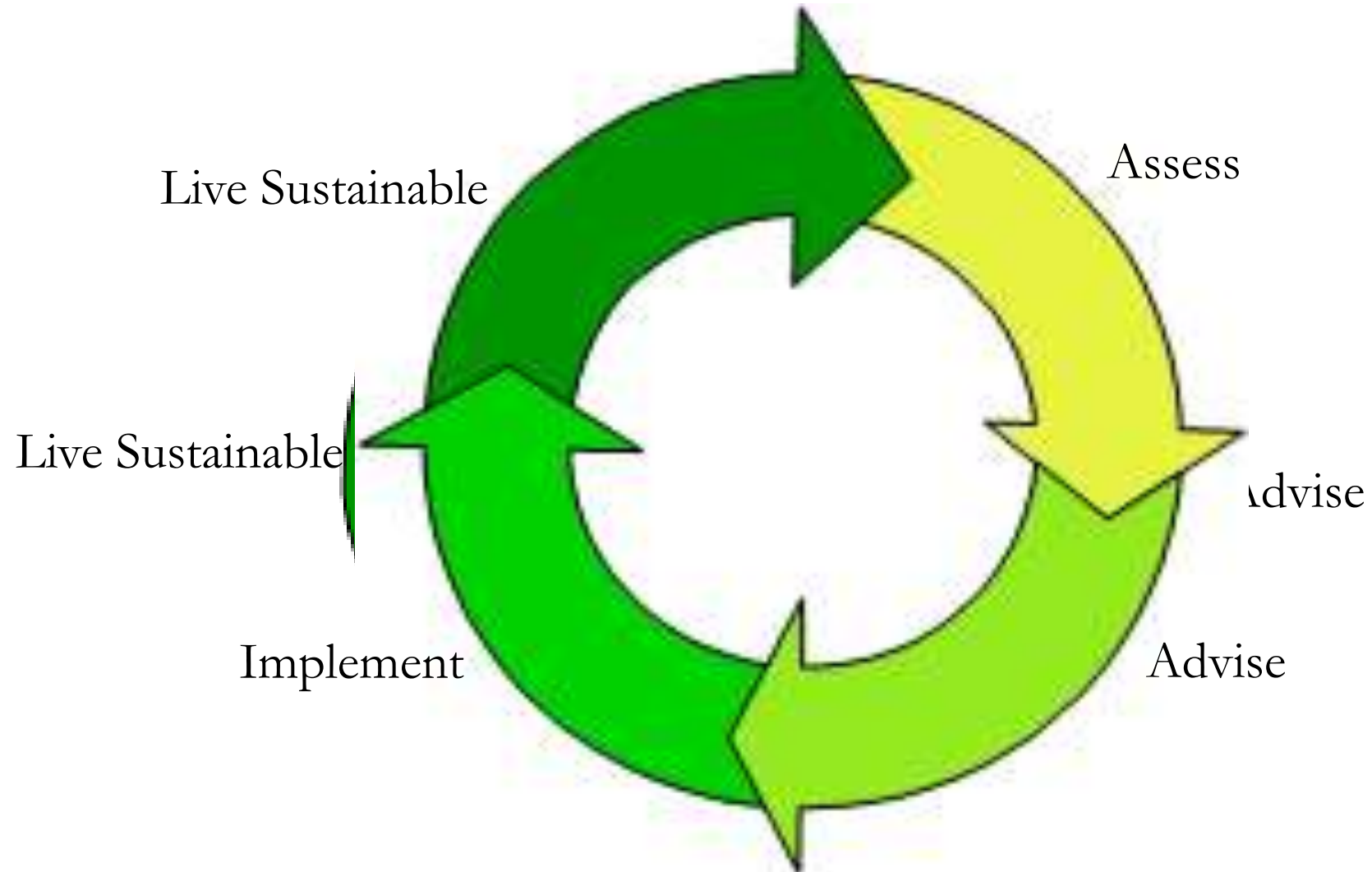
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Goal of CARES

- Goal: to establish and maintain a reliable, region specific online community in which users can:



Grants and Bootstrapping

- Grants:
 - National Collegiate Inventors and Innovators Alliance
 - Kingdom of Saudi Arabia
 - Pinoleville Pomo Nation of Ukiah, CA
- Projects used to build up knowledge base and reach new markets

Customers and Stakeholders of CARES



Academics & Researchers



Individuals



Community Leaders



Homeowners



Manufacturing & Technology Firms

General Views of Customers and Stakeholders

1. sustainability assessment tools have many limitations involving lack of concrete data and questionable accuracy
2. existing sustainability assessment tools merely promote negative feelings and don't provide tenable solutions
3. unclear how various sustainability technology can be integrated into lives of target end user groups
4. unclear how various sustainability technology will have a positive impact upon target end users' life

Core Features of CARES

1. Sustainability database
2. Region-specific cases studies and suggestions
3. Metrics for sustainability calculators
4. Listings of solution vendors and manufacturers
5. Economic, energy, water, and green house gas emissions return on investment data
6. Community of users



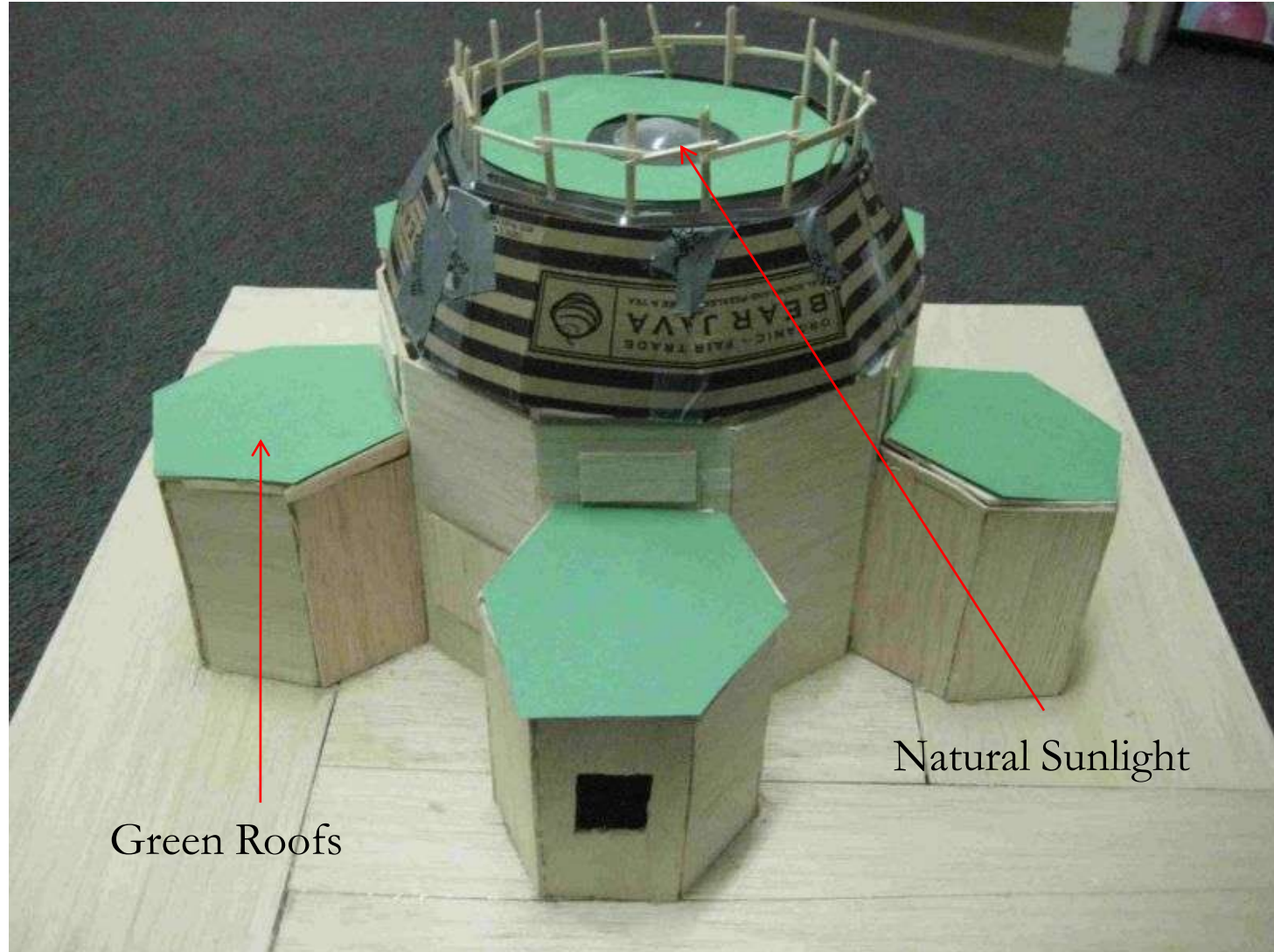
Pinoleville Pomo Nation Case Study

- The Pinoleville Pomo Nation is a Native American tribe located in Ukiah, CA
- Needs: housing, energy efficiency, cultural integration



Pinoleville Pomo Nation Case Study

Initial Roundhouse Sketch

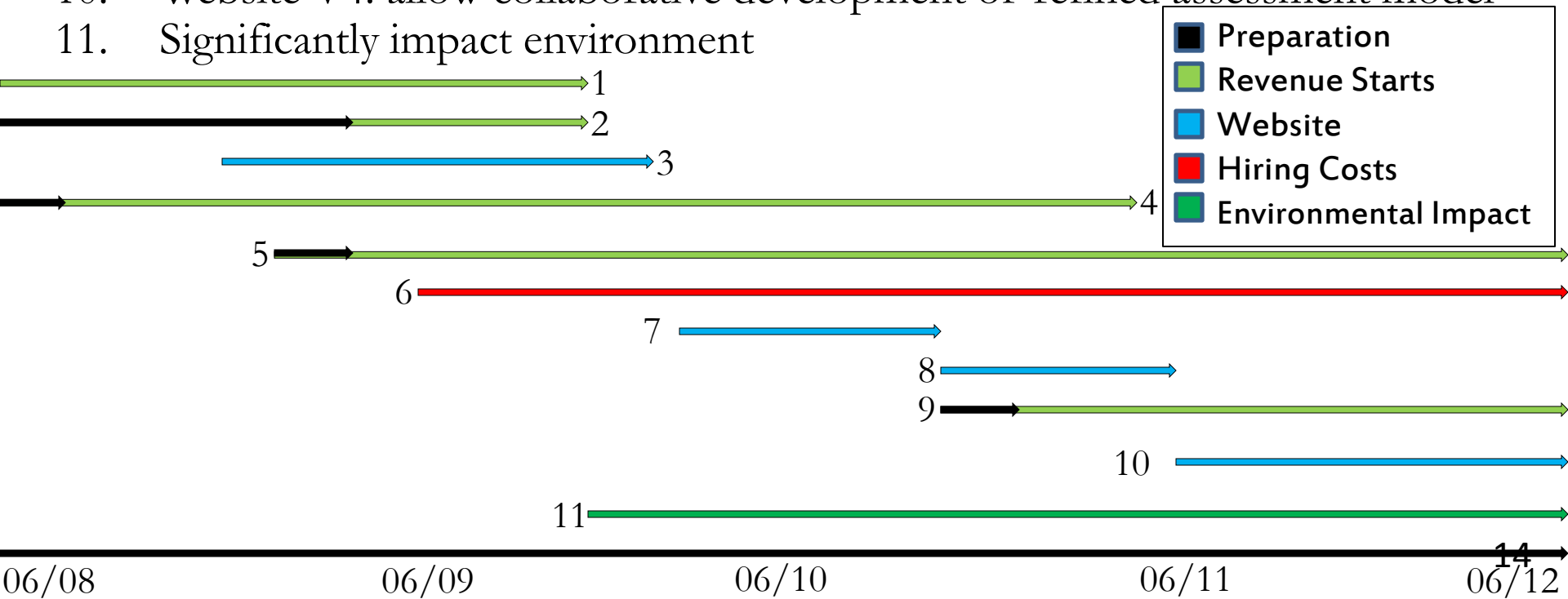


How this fits into CARES

- Future work:
 1. Strategic Energy Plan
 2. energy audits of typical buildings and homes
 3. refine roundhouse-style design
 4. incorporate as solar photovoltaic and solar hot water heater systems
 5. create GIS maps of renewable energy potential
 6. retrofit homes in Pinoleville Heights Subdivision

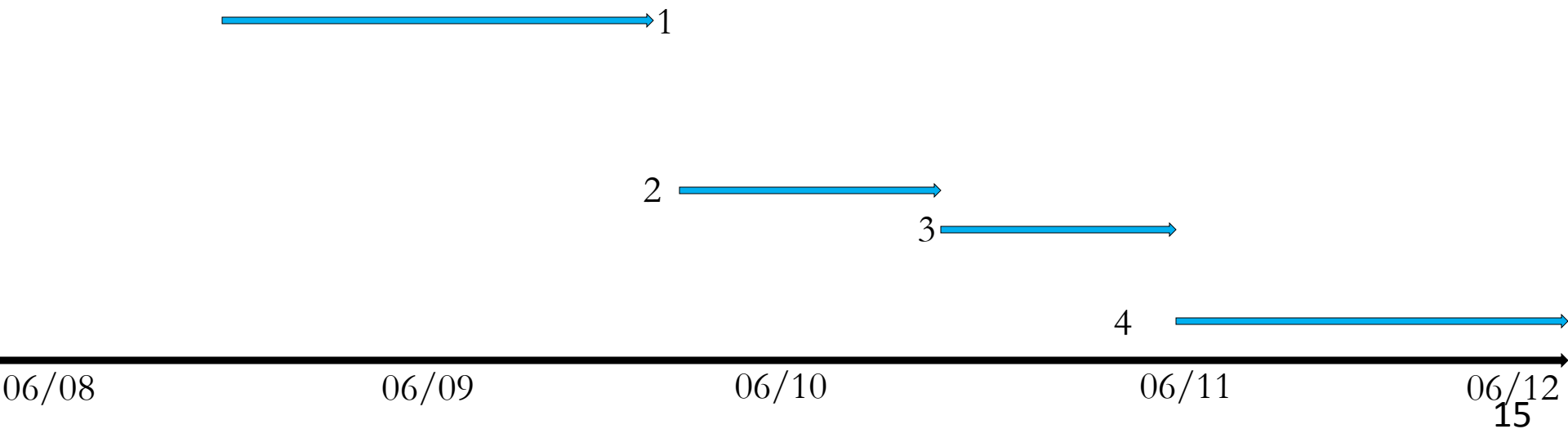
5 Year Strategic Business Plan Outlook

1. Pomo Nation project
2. UC Berkeley residence halls project
3. Launch website V1: library, latest news, forum, metrics
4. Kingdom of Saudi Arabia project
5. Partnership with Real Goods
6. Hire web designer/programmer
7. Website V2: referral service, CARES certification, update library
8. Website V3: personalized sustainability assessment model
9. Hewlett Packard Project
10. Website V4: allow collaborative development of refined assessment model
11. Significantly impact environment



5 Year Strategic Business Plan Outlook

1. Launch website V1: library, latest news, forum, metrics
2. Website V2: referral service, CARES certification, update database
3. Website V3: personalized sustainability assessment model
4. Website V4: allow collaborative development of assessment models



How You Can Get Involved

- Become a member of Advisory Board
- Information from Manufacturing and Service Provider Firms
- Partnership with NGOs
- Help create community of users
- Funding!!!!!! 😊

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