

Potential Cooperative Projects

*Presentation to LBNL Community Advisory Group
January 11, 2016*

Benefits



- Tap the expertise of LBNL
- Work with the CAG, the city of Berkeley and other community partners to identify test bed sites

Benefits to Community Relations

Team



Early Work: Diz Swift, Jim Hynes, Rich Sextro,
Phil Price

Proposal Development: Diz Swift, Jim
Hynes, Armando Viramontes, Daniel Iacofano

Selection Criteria

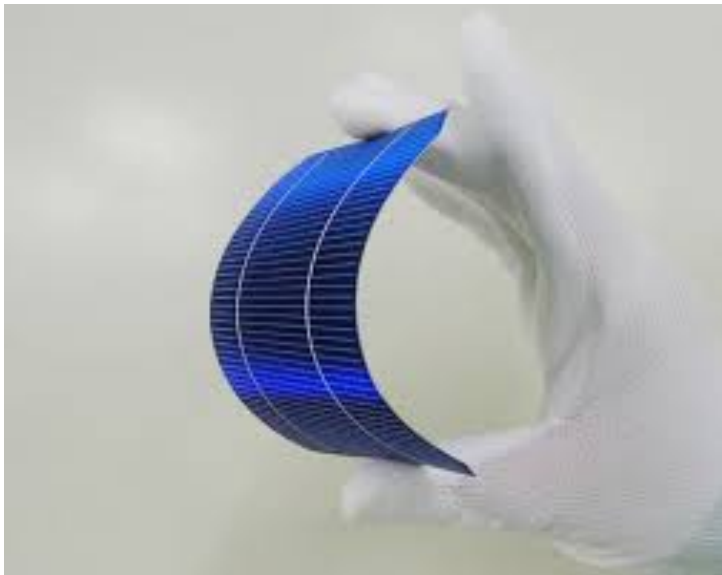


- Berkeley need
- LBNL expertise
- Synergy
- Timeliness
- Funding



Potential Project Ideas

Building Efficiency



Watershed Management Improvements



Urban Agriculture



Projects



Berkeley Building Efficiency

Watershed Management Improvements

Urban Agriculture

Best Match to Criteria

- Berkeley need
- LBNL expertise
- Synergy
- Timeliness
- Funding

Building Efficiency Berkeley Need

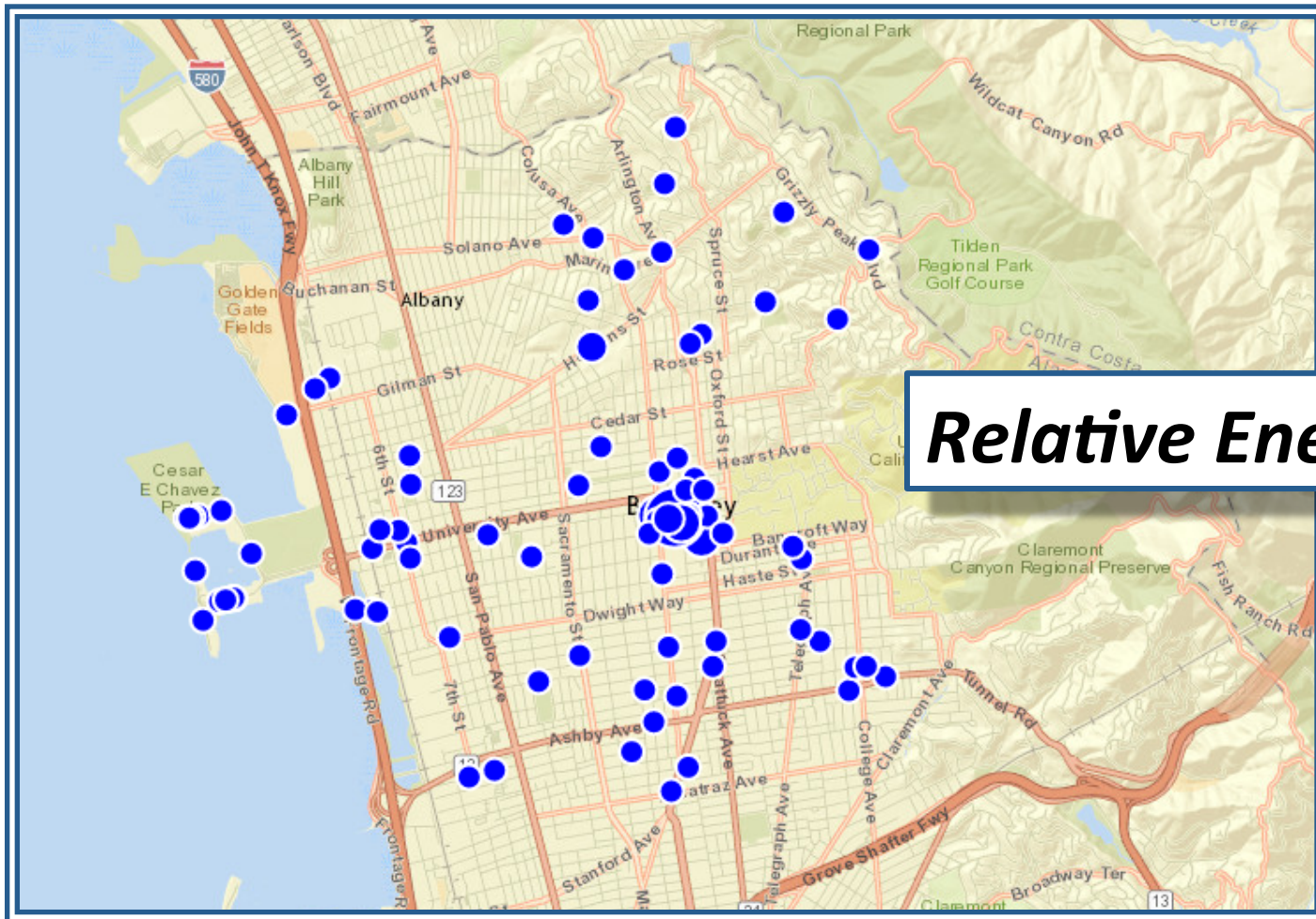


Increase Building Efficiency

- Must increase building efficiency – 45% of total emissions
- City is responsible for 95 facilities (*excluding libraries and buildings leased to others*)
- Recent experience changing to LEDs in street lights shows improved efficiency can save significant money
- Current deferred maintenance backlog is \$16.39 million – requires prioritization

(as reported Mar 24, 2015)

Berkeley Facilities



Relative Energy Use



Energy Efficiencies of Buildings and Surfaces

- “Researchers in the Energy Technologies Area work to transfer new energy-efficient building technologies from the laboratory to the real world...”
- “Researchers develop whole-building energy simulation software programs that allow architects and building engineers to design or retrofit buildings for maximum energy efficiency and occupant comfort.”
- Evaluate influence of policies on emissions/efficiencies

Quotes from LBL website <http://eetd.lbl.gov/>

Building Efficiency Synergy



LBNL Gains

- A real world municipal test site
- Technology and learnings are scalable and transferable
- Includes societal and human behavior aspects
- Continues to build community relations

Building Efficiency Synergy



Berkeley Gains

- Advanced ideas for energy efficiency
- Information for prioritization of building retrofits
- Understanding of policy influence on emissions
- Save money in energy costs
- Improved relationship with LBNL

Building Efficiency Timeliness



- Need to reduce emissions (SB 350)
- Urgent need to prioritize building efficiency and maintenance
- LBNL expertise ready for transfer

Building Efficiency Funding



- Possible California grants (SB 350)
- Integrate with existing LBNL funding
- Foundation funding (e.g. Rockefeller)

Building Efficiency Next Steps



- Build project team – identify champions at LBNL and City
- Develop concept paper
- Explore funding

Building Efficiency



Discussion