Marin Energy Authority
Technical Committee
Monday, March 11, 2013
9A.M.

San Rafael Corporate Center
Boro Room
750 Lindaro Street, San Rafael, CA 94901

1. Board Announcements (Discussion)

2. Public Open Time (Discussion)

3. Report from Executive Officer (Discussion)

4. SEED Program Overview (Discussion)

5. MCE Qualifying Process on Local Projects (Discussion)

6. Board Member & Staff Matters (Discussion)

7. Adjourn
What is SEED Fund

• Model
  – A revolving fund to defer upfront costs for public sector solar PV or energy efficiency project analysis and procurement
  – Built on a proven collaborative approach

• Municipal Benefits
  – Realize 10-12% in total project cost savings
  – Reduce transaction costs by 50-70%
Who is SEED Fund

• SEED Fund NP LLC
  – Wholly owned subsidiary of Strategic Energy Innovations, a California 501c3
    • Founded in 1997, Strategic Energy Innovations (SEI) is a non-profit that develops and delivers solutions customized to help communities accomplish their sustainability goals.
  – Optony Inc.: SEED Fund Technical Service Provider
    • Optony Inc is a global research and consulting services firm focused on enabling government and commercial organizations to bridge the gap between solar energy goals and real-world results.
  – Established with California Solar Initiative Research Design and Development Business Innovation grant of $300,000
    • Grant is supported by PG&E and California Public Utilities Commission, and is implemented by Itron
Background

Silicon Valley Regional Project

- Included 43 sites
  - Collaboration across 9 jurisdictions
  - 14.4MW of combined solar PV

- Multiple Site Types:
  - Carports
  - Rooftops
  - Ground mounted

- Largest multi-agency effort to date
  - County of Santa Clara
  - 6 Cities
  - 2 Special Districts

- LESSONS:
  - Aggregated purchase discounts 12%+
  - Reduced admin and transactions costs 50%+
  - Better negotiated contract terms & conditions
Recent Changes

- Dramatic Drop In Panel Prices
- Consolidation In The Industry
- New Financial Players In The Market
- Maturing Industry
- US Markets Are The New Focus
- Excess PV Capacity Coming Online
- Grid Parity Accelerating (without incentives)

Major Impact On:

- Better Project Economics
- Few, Stronger Players
- Lower Cost Of Capital
- Better Results For Clients
- PV Mfrs Must Lower Cost
- Must Seek Long-Term Stability
- Mass Adoption Of Solar
Background:
Solar Project Trends

![Graph showing annual installations and U.S. share of global market share over years 2005 to 2016.](image)
Background:
Electricity Pricing Trends

Average PG&E prices per kWh for Commercial Facilities

$/kWh

Year


$0.08 $0.10 $0.12 $0.14 $0.16 $0.18 $0.20

E-19S
A-6
A-1
A-10
Goals of SEED Fund

• Bring at least 5 MW of new public renewable energy on line
• Realize 10-12% in total project cost savings
• Reduce transaction costs and administrative effort by 50-70%
• Deliver collaboration & technical support for 1.5-2% of total contracted solar project costs
• Create an economically sustainable revolving fund
Timeline For North Bay Project

- **Start Outreach** (Q2 2012)
  - Engage public agencies
  - High level review of sites

- **Sign MOUs** (Q1 2013)
  - Conduct feasibility studies
  - Develop RFP
  - Issue RFP
  - Evaluation of responses

- **Implement Solar** (Q1 2014)
  - Council / Board approval
  - Build projects
  - Reimburse SEED Fund

- **Launch Round 2** (Q2 2014)
Current Program Pipeline

Initial Outreach
~200 Agencies contacted in Marin, Sonoma, Napa County

Pre-Screening
32 Agencies with over 20 MW

MOUs *
16 Agencies anticipated with at least 10 MW

Solicitation
10 Agencies anticipated with at least 7 MW

Build and Reimbursement
5 MW expected, yielding between $300-$400,000

*Where we are currently
Status of Current Participants

<table>
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<tr>
<th>MOU in progress or received</th>
<th>Total &quot;A&quot; PV (kW)</th>
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</thead>
<tbody>
<tr>
<td>City of Mill Valley</td>
<td>361</td>
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<tr>
<td>Marinwood Community Services District</td>
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<td>Napa County Office of Education</td>
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<td>San Rafael</td>
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<td>Sonoma County General Services</td>
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<td>South Marin Fire Protection District</td>
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<td>St. Helena</td>
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<td>Yountville</td>
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<table>
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<tr>
<th>Currently Under consideration</th>
<th>Total &quot;A&quot; PV (kW)</th>
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<td>City of Cloverdale</td>
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<td>City of Novato</td>
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<td>Sausalito</td>
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<tr>
<td>Sonoma County Library</td>
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<tr>
<td>Tamalpais Union High School District</td>
<td>2445</td>
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<tr>
<td>Town of Windsor</td>
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<tr>
<td>Wilmar Union School District</td>
<td>39</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9597</strong></td>
</tr>
</tbody>
</table>

“What you are proposing is very creative and seems like a great opportunity for Mill Valley to be involved in. I like the fact that there are stopping points along the way, where we are actually making a specific decision on a specific project. What I like is this is getting us in the pipeline and getting us in that collaborative spirit without necessarily over committing…To me this feels like a no-brainer and it fits right within our city goals and values.”

Shawn Marshall, Vice Mayor
City of Mill Valley
Coordinating Agency

• City of San Rafael Role:
  – Serve as primary governmental point-of-contact for participants
  – Perform legal review of bid documents
  – Issue bid documents
  – Serve as primary governmental point-of-contact for potential bidders
  – Lead evaluation of proposals
  – Make bid award or notification of short-list
  – Lead contract negotiations

• All of the above responsibilities to be performed with significant SEED Fund support and guidance
MEA Role

• Support City of San Rafael (Coordinating Agency):
  – Legal and business review of procurement documents
  – Assistance with responses to Requests for Information from potential bidders
  – Evaluation of vendors and proposals
  – Reporting/compliance consultation and other professional services as needed

• Spread public knowledge of SEED Fund program
  – Maximize co-branding opportunities with collaborating agencies and participating municipalities

* MEA to provide initial pro bono support in a variety of consultancy roles; MEA will then remain in a support role to the City of San Rafael and bill hourly based on services rendered.
Questions & Discussion

Thank you!
Exploring Potential for MEA
Developed and Owned Local Project
• An MEA developed and owned project has always been a part of MEA’s long term goals and objectives

• MEA has grown and matured to a point where an Agency developed and owned site can be considered

• Credit-rating and Bond issuance process would add to finance opportunities

• MEA jurisdiction has a wide variety of potential site locations to consider

• MEA-owned, local distributed resources provide advantages to MEA rate payers, including:
  ❖ MEA-owned assets lock in cost certainty
  ❖ All installed distributed resources reduce MEA resource adequacy capacity requirements 1:1
  ❖ Sizing of 1MW or less minimizes scheduling and CAISO charges
Step 1: Pre-screening

- Load data to evaluate annual kWh consumption.
- Available roof / parking area.
- Proximity to substation or existing generation.
Step 2: Permitting Process

Zoning & Use Permit
• Sizing PV to offset less than onsite kWh consumption should avoid triggering a Conditional Use Permit which is often required when exporting (selling) energy offsite.

• Zoning and Land Use considerations

• Disturbed sites / ancillary uses

Interconnection
• (Fast Track process) less than 1 MW avoids study fees, network upgrades, reduces development timeline, eliminates scheduling and CAISO fees.
Questions? Comments?