Capturing the Sun: A Roadmap for Navigating Data-Access Challenges and Auto-Populating Solar Home Sale Listings

Laura Stukel, Ben Hoen, Sandra Adomatis, Craig Foley, Laura Parsons
Lawrence Berkeley National Laboratory
January 26, 2017
How To Ask Questions?

In the bottom left of your screen you should have an icon that looks like this

Click on it!

That will open a Chat Dialog Box where you can enter questions

Enter them as we go

We will answer them as they come in when we have pauses, or at the end in the order that they are received
Welcome

- Introductions
- Acknowledgements
Key Takeaways

• The time is now
• Enjoy the journey – It’s long, great partners along the way
Objectives

• Present key concepts so you can get the most out of the Roadmap when you read it
• Preview Roadmap exercises that may help you pursue your own local journey
• Preview the emerging implementation opportunities we’ll be watching in 2017
Agenda

• Report Framework
• Key Takeaways
• From an Idea to a Pathway
• Reflections from the Road (Panel)
• Moving the Roadmap Forward
• Questions and Answers
Report Framework

- Orientation 📍
- Assessments 🛡
- Local Reflections 🇺🇸 🇨🇦 🇺🇸
- Practical Exercises 📝
- Resources 🏰
From an Idea to a Pathway

1) Navigators
2) Landscape assessment
3) Solar data assessment
4) Data access assessment
Navigators

• Journey Leader
• Data Record Holders
• Other important partners:
  – Data Aggregators
  – Bridge Partners
  – Regulatory Champions
Solar Data Assessment

- Real Estate Standards Organization
- Provides the targets to link solar data to MLS
- Data Dictionary v1.5 (July 2016)
- PV fields included as part of RESO Silver Certification

Data required for auto-pop of PV listings:
- Address
- Ownership details (see Current Financing and Electric fields)
- Size of the system (see Power Production Size field)
- Year the system was installed (see Power Production Year field)
- Actual or estimated annual system output (see Power Production Annual field)
Landscape Assessment

- Solar inventories
- Implementation opportunities (i.e. Get to know your MLS)

Residential Solar PV Systems per Household in Massachusetts (Density by Township)

Single-Family Home Solar PV Market in San Diego County

Source: Massachusetts Clean Energy Center Production Tracking System, August 2016

Data Source: Currently Interconnected Data Set, California Solar Statistics
Data Access Assessment

The public/private paradox of solar data

Google Earth Image of a Solar Rooftop, Visible to Public (Online)

Source: Google Earth
Data Access Assessment

• Six sources of solar data
  – Permits
  – UCC Filings
  – Interconnection Applications
  – Incentive Program Data
  – Financing Data
  – Installer Data
Six Ideas: Busting Data Access Barriers

• Opt-out/opt-in campaigns
• Contract consent clauses
• Draft legislation
• Public records request
• Best practices for local governments
• Mash up data from multiple sources
Early Reflections from the Road

• Three locations
• Three different emerging pathways
Early Reflections: Massachusetts

Direct to MLS Pathway: Likely Flow of Auto-Populated Data

Tax aggregator imports data from the existing solar repository, then feeds to MLS

Existing Solar Repository → Tax Aggregator → MLS

MLS imports directly from the existing solar repository

Existing Solar Repository → MLS
Early Reflections: San Diego County

Solar Industry Collaborative Repository Pathway:
Likely Flow of Auto-Populated Data
Early Reflections: Colorado

Publicly Funded Repository Pathway: Likely Flow of Auto-Populated Data

Permit Data

UCC Filing Data

Other Data Sources

Publicly Funded Repository

Tax Aggregator

MLS

MLS

MLS
Early Reflections

• Author Panel
Investigating Your Own Journey

- Use the Roadmap exercises
- From an Idea to a Pathway
  1) Navigators
  2) Landscape assessment
  3) Solar data assessment
  4) Data access assessment
**Chart Your Own Roadmap**

**Journey Leader Exercise:**

**Solar Data Assessment**

As part of the Roadmap, Journey Leaders should complete a solar data assessment. Use the template below as a starting place to assess the data sources in your local context.

<table>
<thead>
<tr>
<th>Information about the data</th>
<th>Data available to be entered in RESO fields?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Source</td>
<td>Data</td>
</tr>
<tr>
<td>----------------------------</td>
<td>------</td>
</tr>
<tr>
<td><strong>Publicly Recorded Data – Property-Specific</strong></td>
<td></td>
</tr>
<tr>
<td>Permits</td>
<td></td>
</tr>
<tr>
<td>UCC filings</td>
<td></td>
</tr>
<tr>
<td><strong>Publicly Recorded Data – Anonymized</strong></td>
<td></td>
</tr>
<tr>
<td>Interconnection applications</td>
<td></td>
</tr>
<tr>
<td>Incentive program data</td>
<td></td>
</tr>
<tr>
<td><strong>Non-Public Data – Private Market</strong></td>
<td></td>
</tr>
<tr>
<td>Financing data</td>
<td></td>
</tr>
<tr>
<td>Installer data</td>
<td></td>
</tr>
</tbody>
</table>
Watch for Implementation Updates in 2017

• 5 Potential Focus Geographies:
  – Massachusetts
  – San Diego
  – Southern California
  – Colorado
  – Vermont
How To Ask Questions?

In the bottom left of your screen you should have an icon that looks like this:

Click on it!

That will open a Chat Dialog Box where you can enter questions:

Enter them as we go

We will answer them as they come in when we have pauses, or at the end in the order that they are received.
Questions?

Link to Full Report and Supporting Docs:

Capturing The Sun

Or Google “Capturing The Sun Berkeley Lab”

Also available on that page:

2-Page Summary
Webinar PowerPoint
Journey Leader Exercises
Thank You!

Contact Info:

Ben Hoen, Lawrence Berkeley Laboratory: bhoen@lbl.gov, 845-758-1896

Laura Stukel, on behalf of Elevate Energy: l.reedystukel@lwreedy.com, (773) 269-4037

Sandra Adomatis, Adomatis Appraisal Service: adomatis@hotmail.com, 941-505-8783

Craig Foley, Sustainable Real Estate Consulting Services: craig.rhg@gmail.com, 617-470-4554

Laura Parsons, Center for Sustainable Energy: laura.parsons@energycenter.org, 858-244-7288