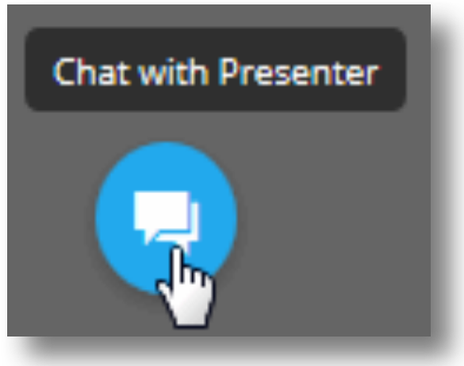
Capturing the Sun:
A Roadmap for Navigating Data-Access Challenges and Auto-Populating Solar Home Sale Listings

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

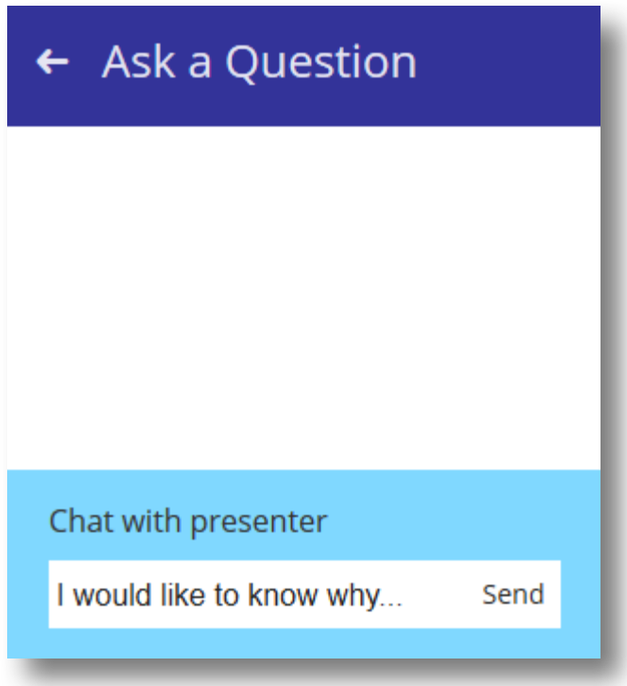


Click on it!

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

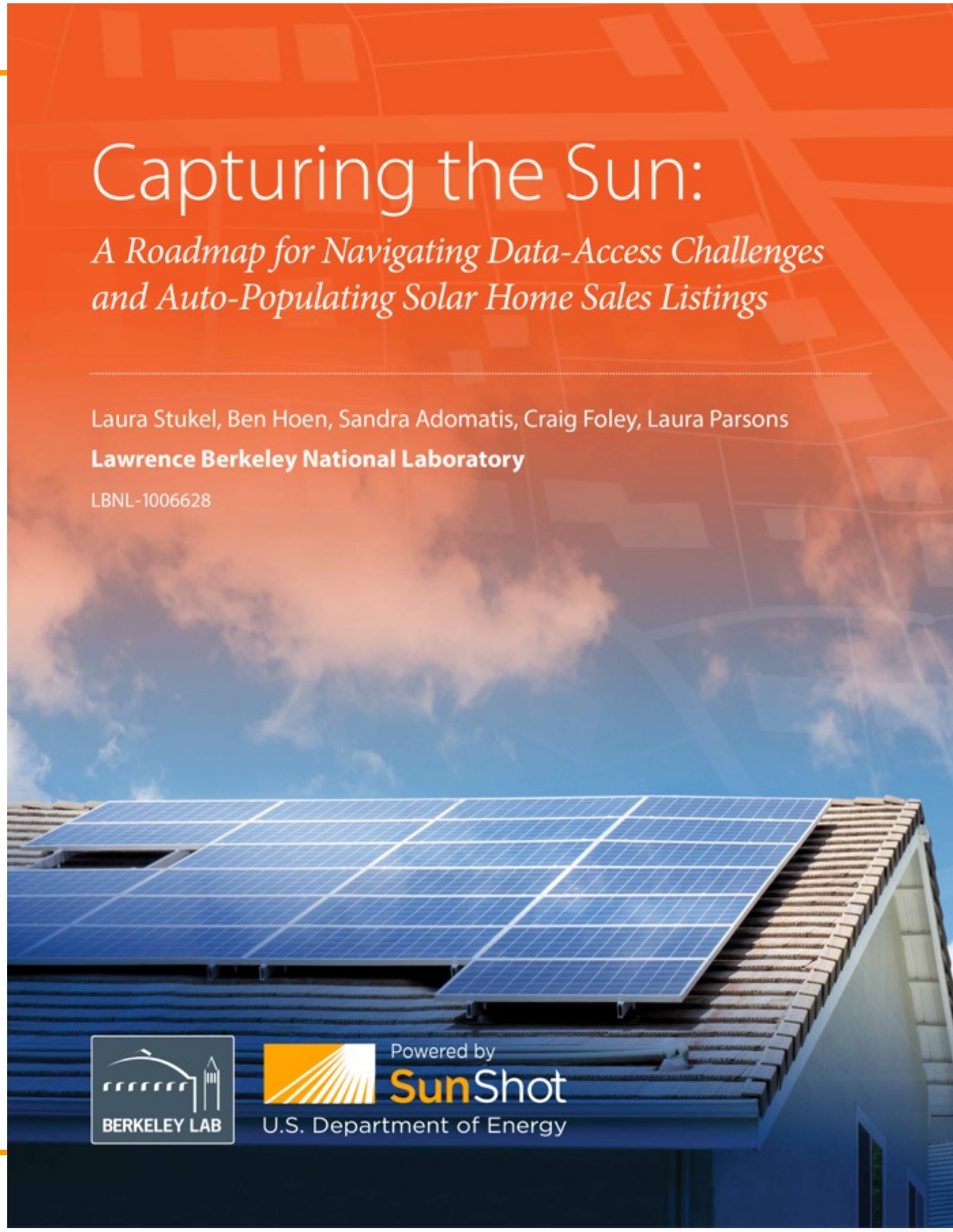


BERKELEY LAB

SunShot
U.S. Department of Energy

Welcome

- Introductions
- Acknowledgements



BERKELEY LAB

SunShot
U.S. Department of Energy

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

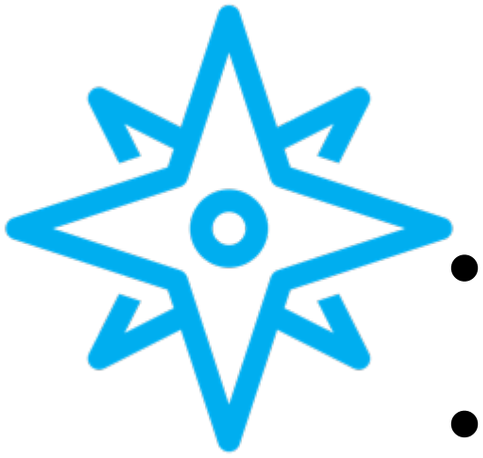
Report Framework

- 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

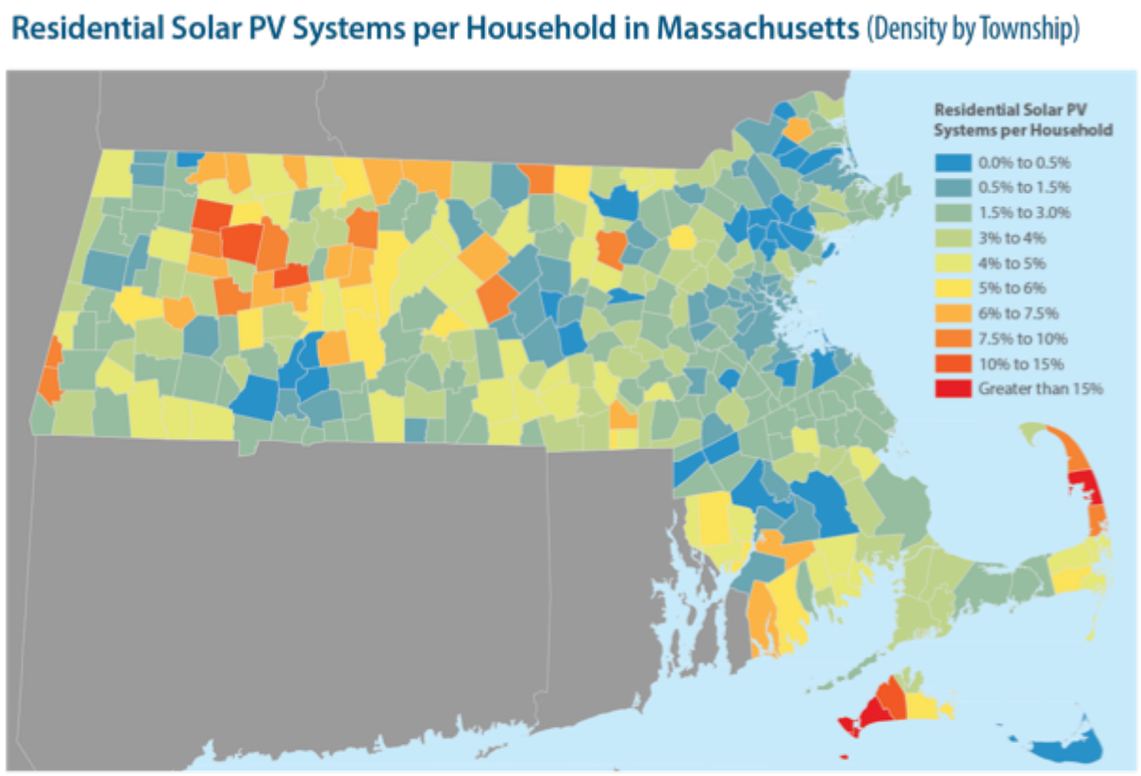
- Real Estate Standards Organization
- Provides the targets to link solar data to MLS
- Data Dictionary v1.5 (July 2016)
- PV fields included as part of RESO Silver Certification

Data required for auto-pop of PV listings:

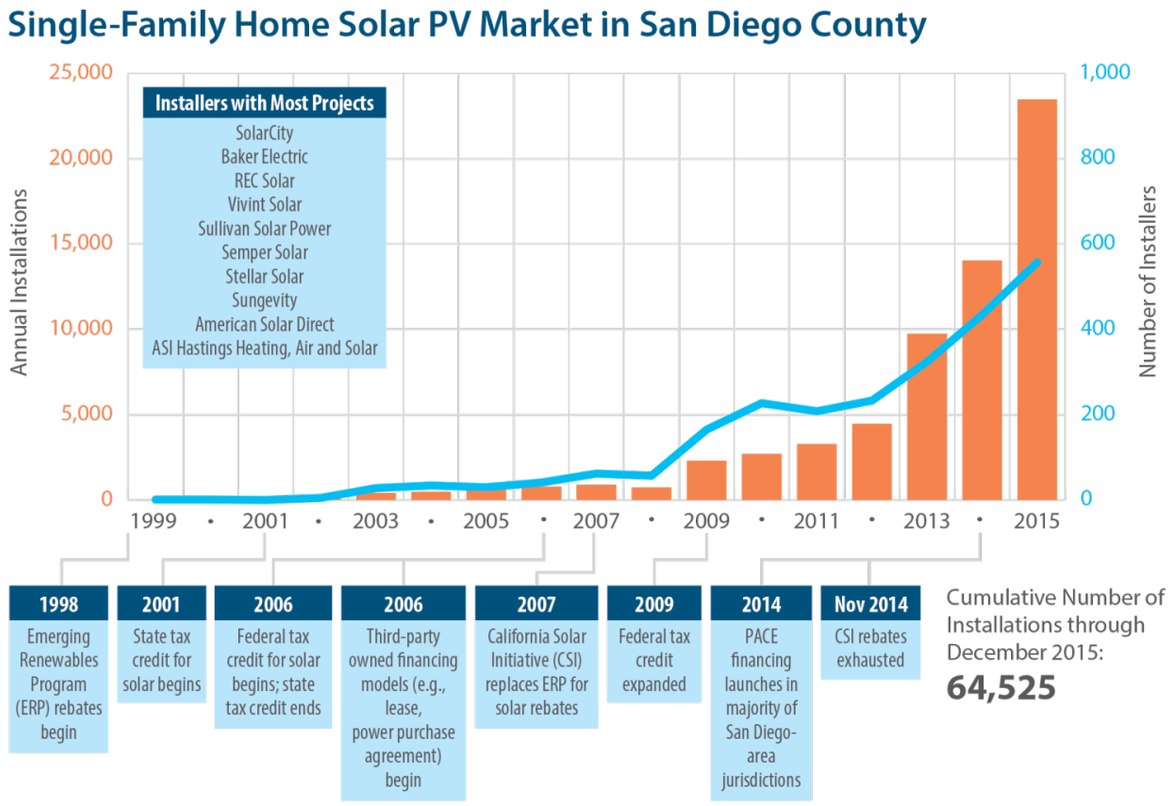
- Address
- Ownership details (see *Current Financing* and *Electric* fields)
- Size of the system (see *Power Production Size* field)
- Year the system was installed (see *Power Production* Year field)
- Actual or estimated annual system output (see *Power Production Annual* field)

Landscape Assessment

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



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



Data Source: Currently Interconnected Data Set, California Solar Statistics

BERKELEY LAB

SunShot
U.S. Department of Energy

Data Access Assessment

The public/private paradox of solar data

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

Source: Google Earth

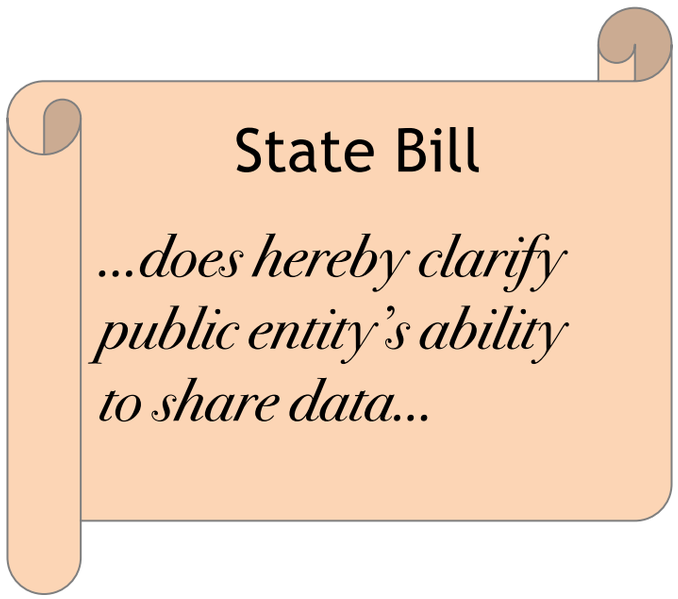
Data Access Assessment

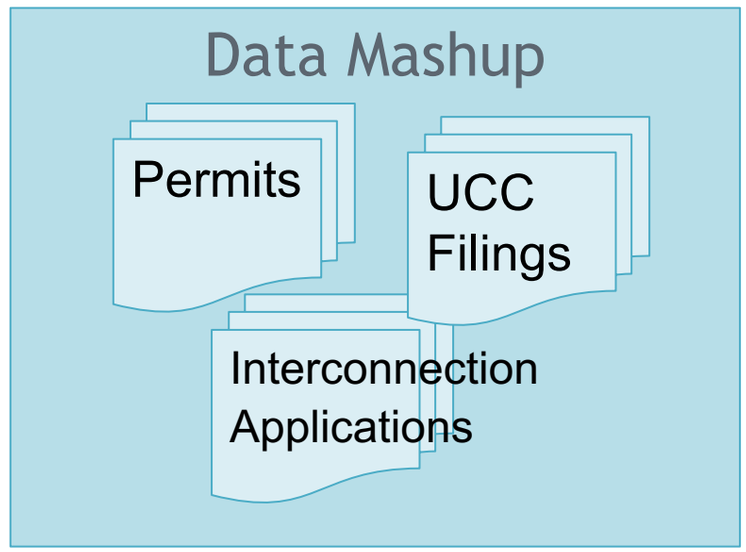
- Six sources of solar data
  - Permits
  - UCC Filings
  - Interconnection Applications
  - Incentive Program Data
  - Financing Data
  - Installer Data

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

Opt-Out Post Card





BERKELEY LAB

SunShot U.S. Department of Energy

Early Reflections from the Road

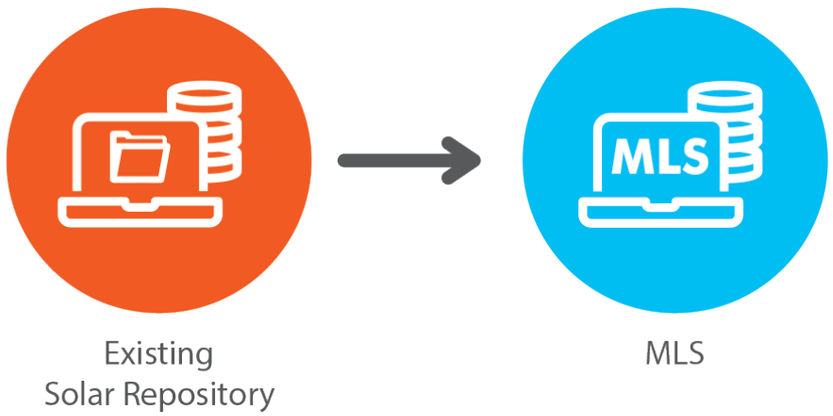
- Three locations
- Three different emerging pathways

Early Reflections: Massachusetts

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

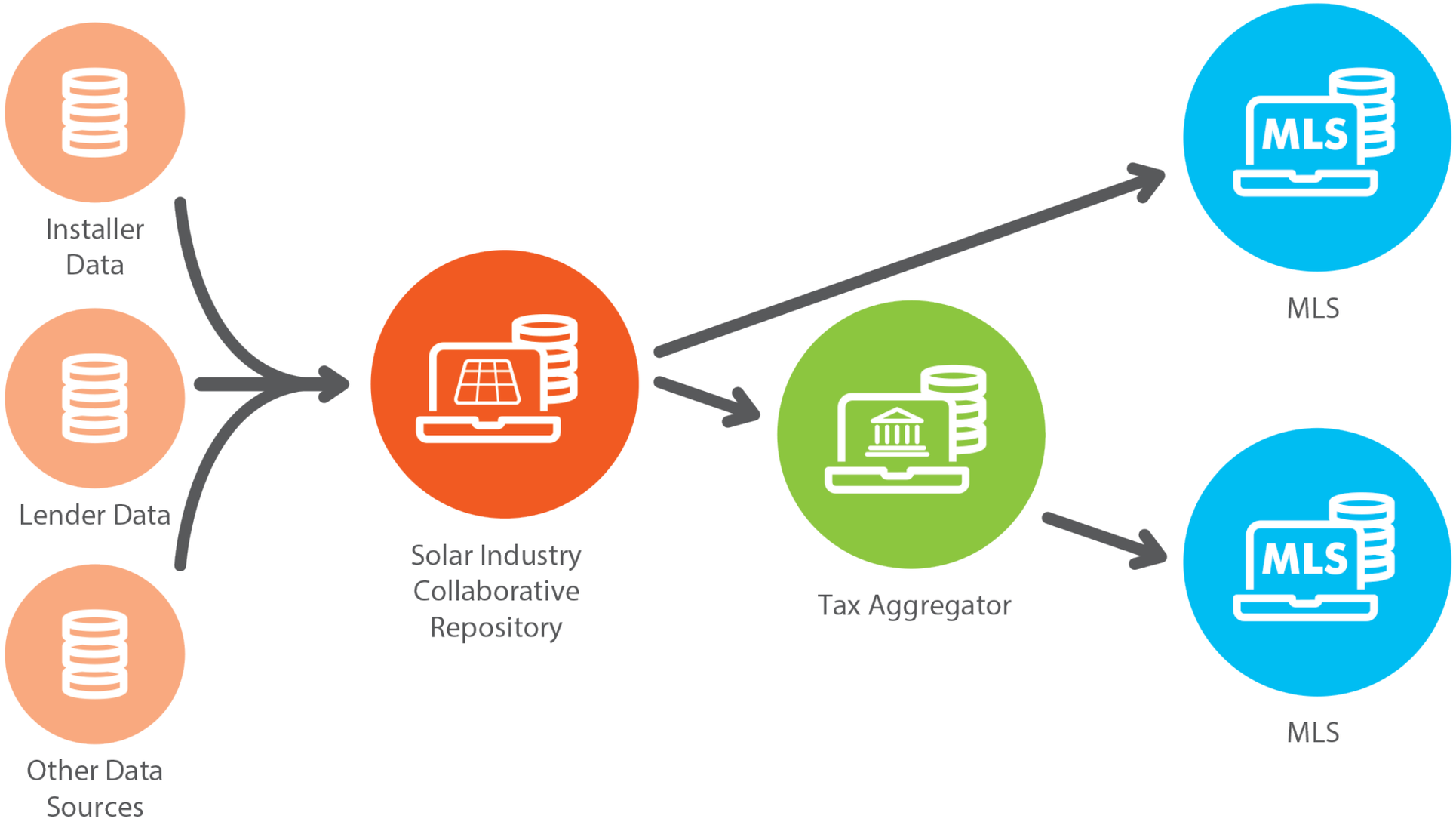
Tax aggregator imports data from the existing solar repository, then feeds to MLS

MLS imports directly from the existing solar repository



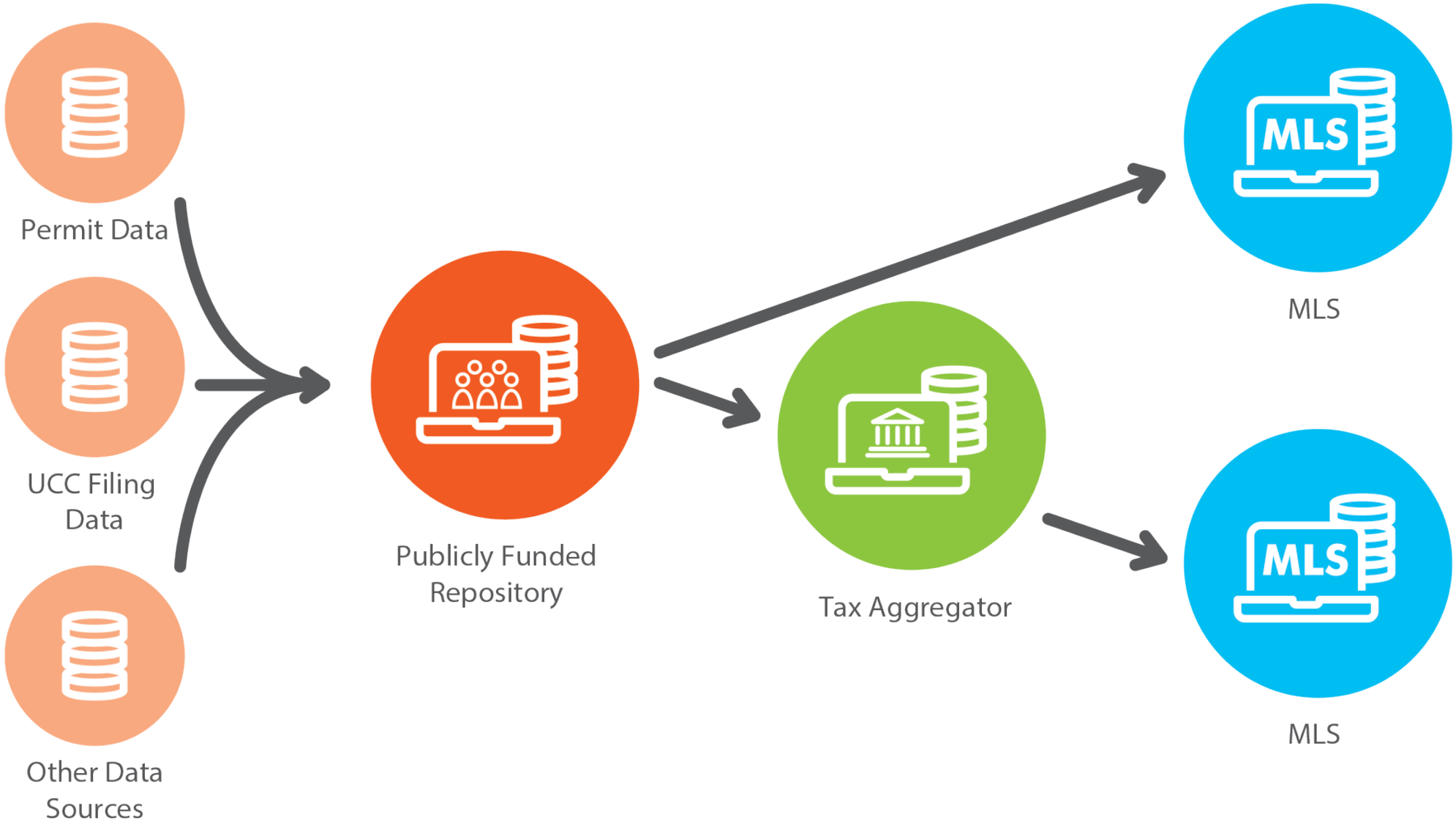
Early Reflections: San Diego County

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



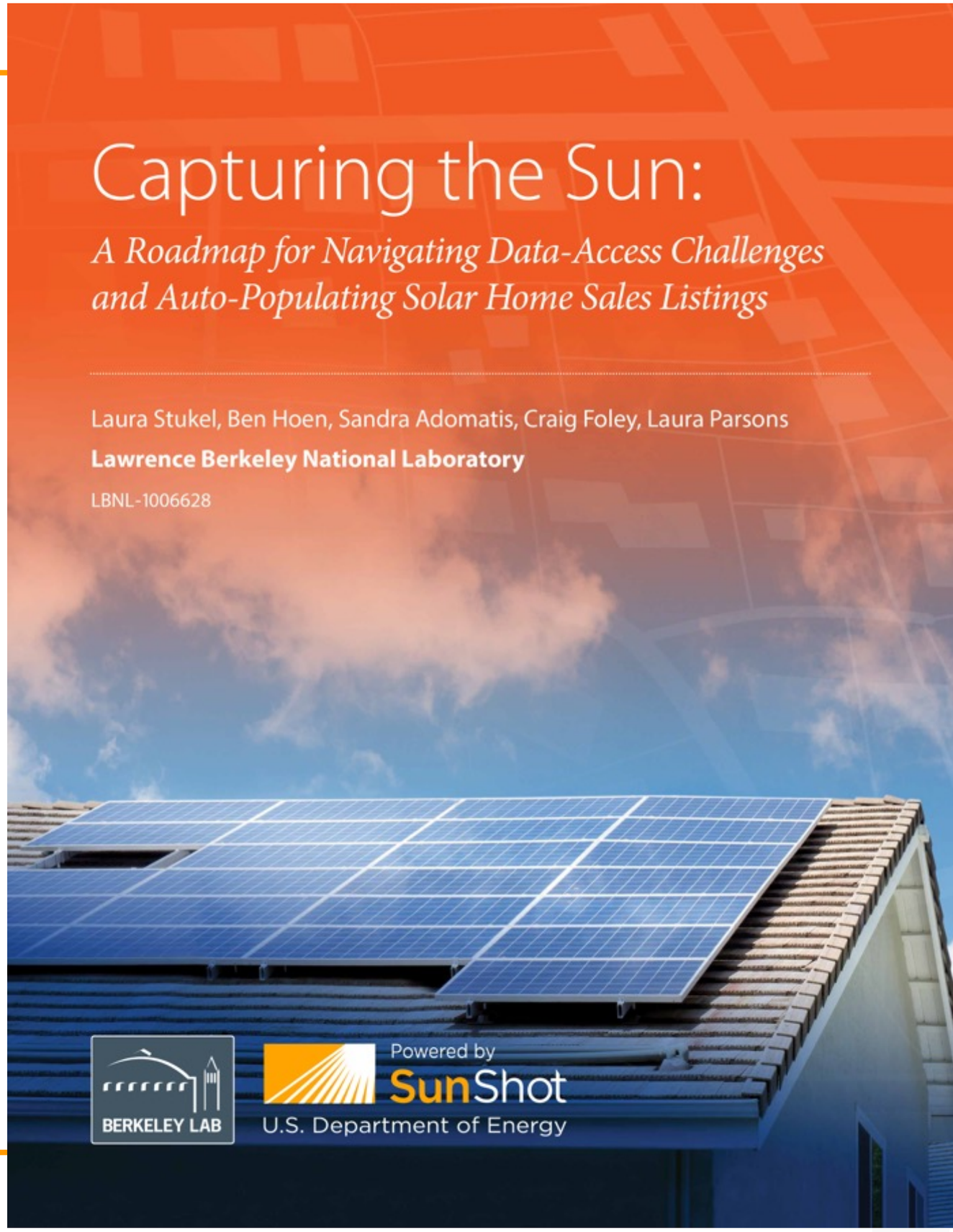
Early Reflections: Colorado

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



Early Reflections

- Author Panel



BERKELEY LAB

SunShot
U.S. Department of Energy

Investigating Your Own Journey

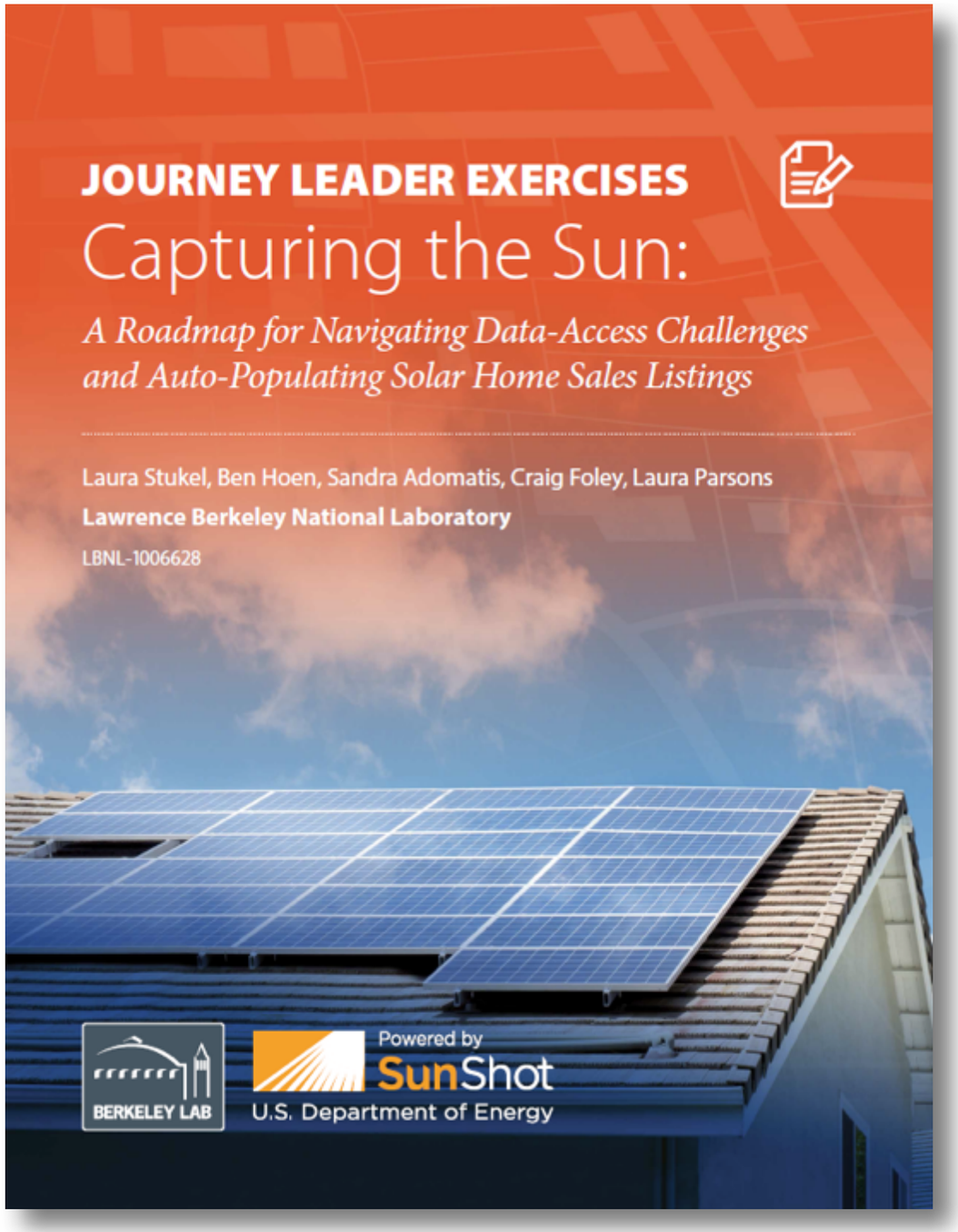
- Use the Roadmap exercises
- From an Idea to a Pathway
  1) Navigators
  2) Landscape assessment
  3) Solar data assessment
  4) Data access assessment

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.

Information about the data			Data available to be entered in RESO fields?					
Data Source	Data	Public or Private?	Address of Solar Home	Ownership/ Financing Type	Size of System	Year Installed	kWh/ year Estimated	kWh/ year Actual
Publicly Recorded Data – Property-Specific								
	Permits							
	UCC filings							
Publicly Recorded Data – Anonymized								
	Interconnection applications							
	Incentive program data							
Non-Public Data – Private Market								
	Financing data							
	Installer data							

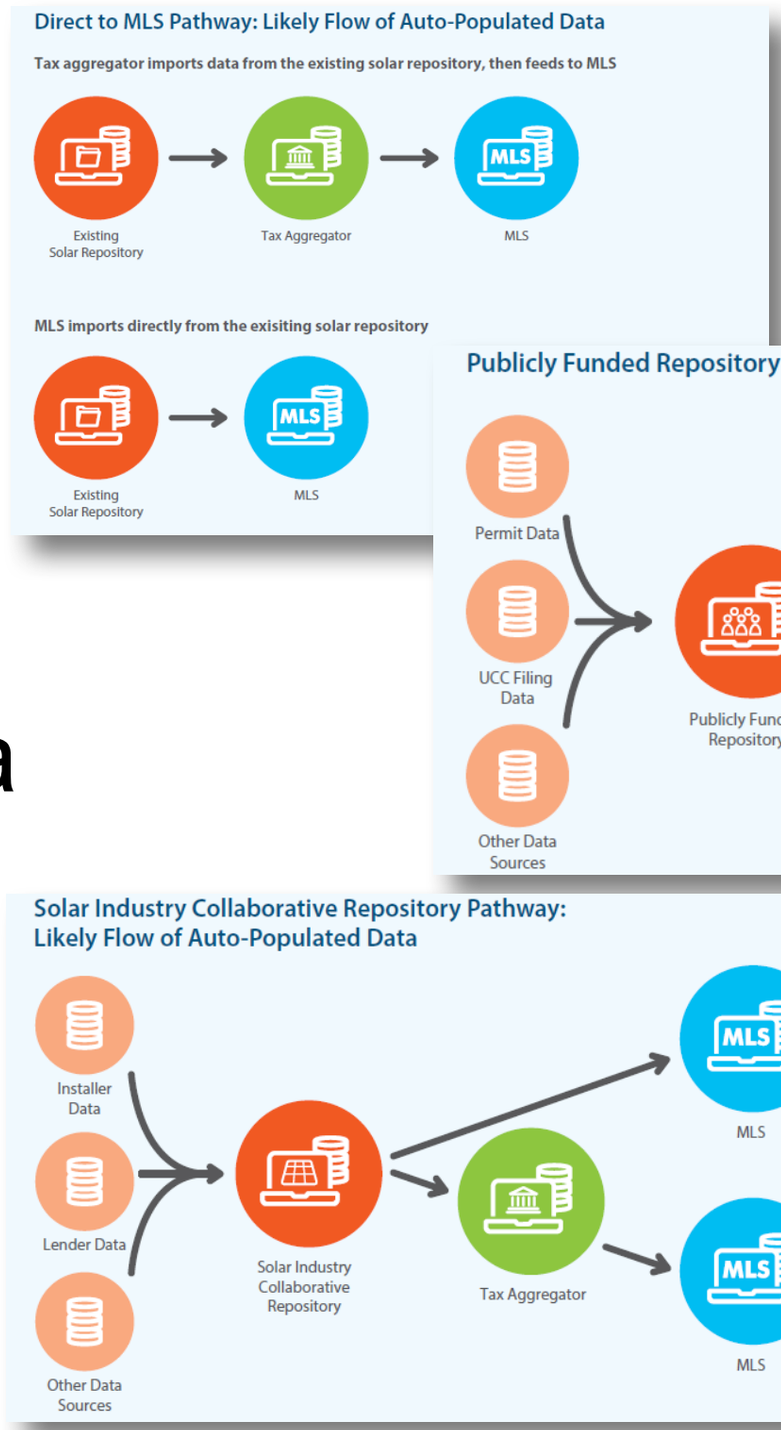


BERKELEY LAB

SunShot
U.S. Department of Energy

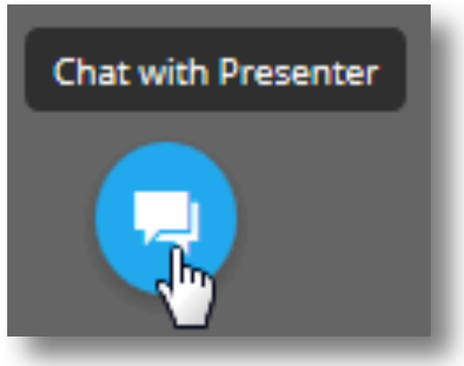
Watch for Implementation Updates in 2017

- 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

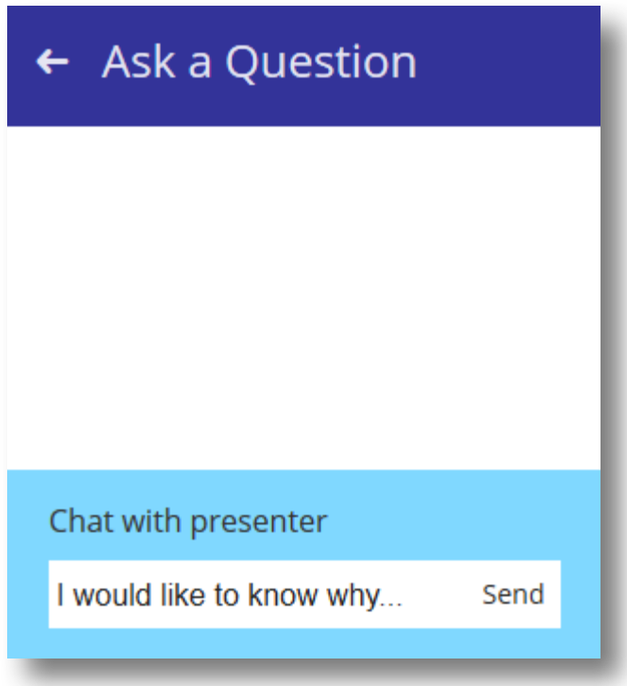


Click on it!

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



BERKELEY LAB

SunShot
U.S. Department of Energy

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

BERKELEY LAB

SunShot U.S. Department of Energy

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

BERKELEY LAB

SunShot
U.S. Department of Energy