5 Steps to Tailored Market Research for Community Solar Programs

CSVP Webinar Series
March 1, 2017

Jennifer Mitchell-Jackson • Grounded Research and Consulting
Jill Cliburn • CSVP Principal Investigator

Community Solar Value Project

CommunitySolarValueProject.com

Powered by SunShot U.S. Department of Energy

The Community Solar Value Project

- Led by Extensible Energy, w/ expertise of 3 additional firms
- Funded by U.S. Department of Energy SunShot Initiative
- Utility-led community solar programs, using a variety of project ownership options and program innovations.

Community Solar Value Project

www.communitysolarvalueproject.com

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Building a Customer-Centric Community Solar Program Through Market Research and Market Segmentation

Another publication: Community Solar Program-Development Landscape

April Webinar: Lessons Learned from the SMUD Solar Shares Program

June: National Community Solar Utility Leadership Workshop in Golden, Colorado

News, resources, and solutions most relevant to utility-led programs

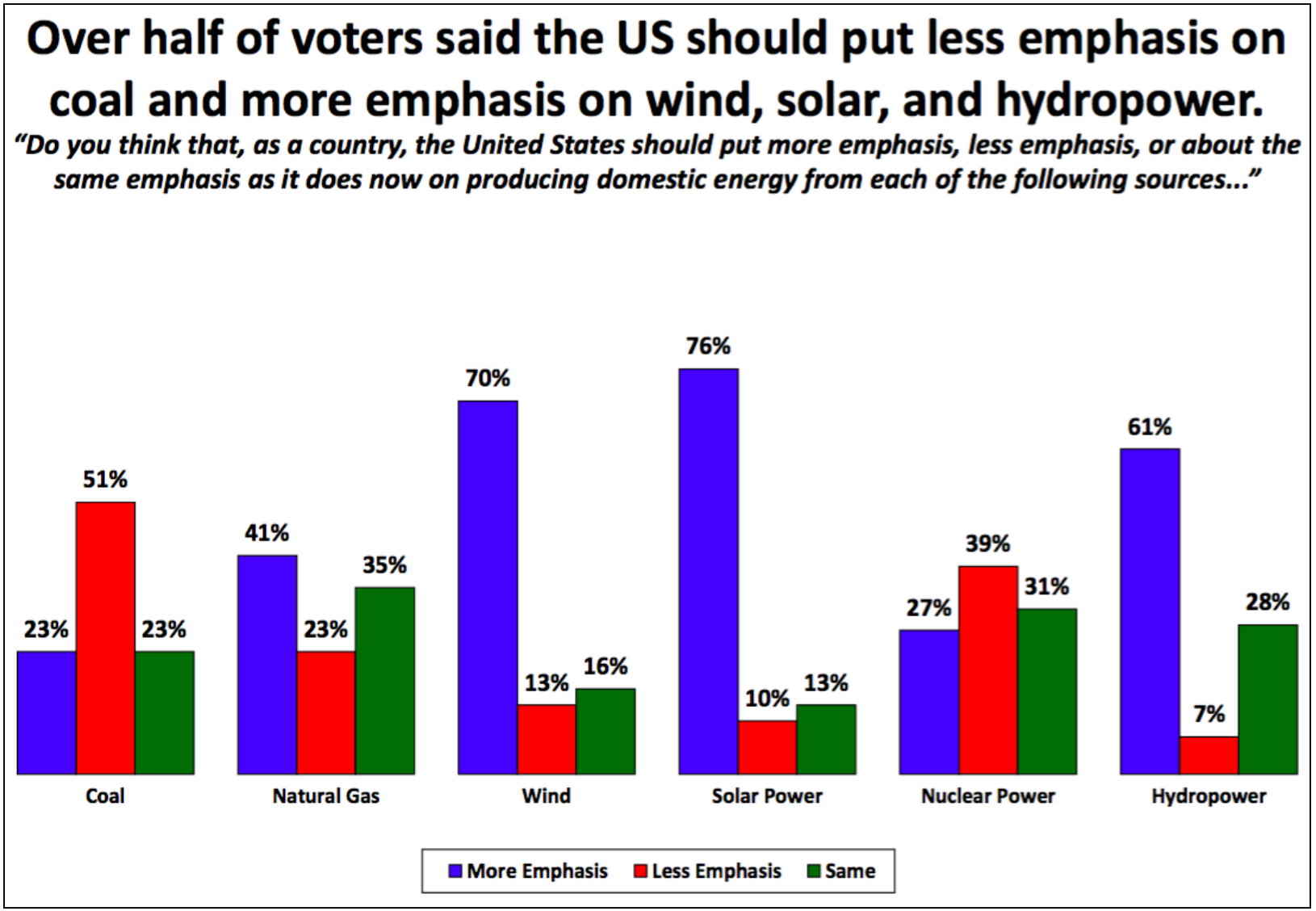
www.communitysolarvalueproject.com/library

Context for the Discussion

- Broadly defined, community solar appeals to a huge market across America.
- In specific terms, customers still do not know what community solar means.
- In terms of project development, we are learning that portfolios of smaller, local projects can meet utility and customer cost requirements.
- Strong opportunity for utilities to develop a product portfolio that reaches new or important markets.

Rethinking the Market

- Source #1: CSVP experience, matched with findings from RMI on the viability of multiple local community solar projects.
- Source #2: Public Opinion Strategies poll for Conservative Energy Network indicating strong support for community solar across the political spectrum… also suggesting multiple
- Source #3: New polling and analysis from Shelton Group underscores market segmentation that goes beyond the universal economic appeal.

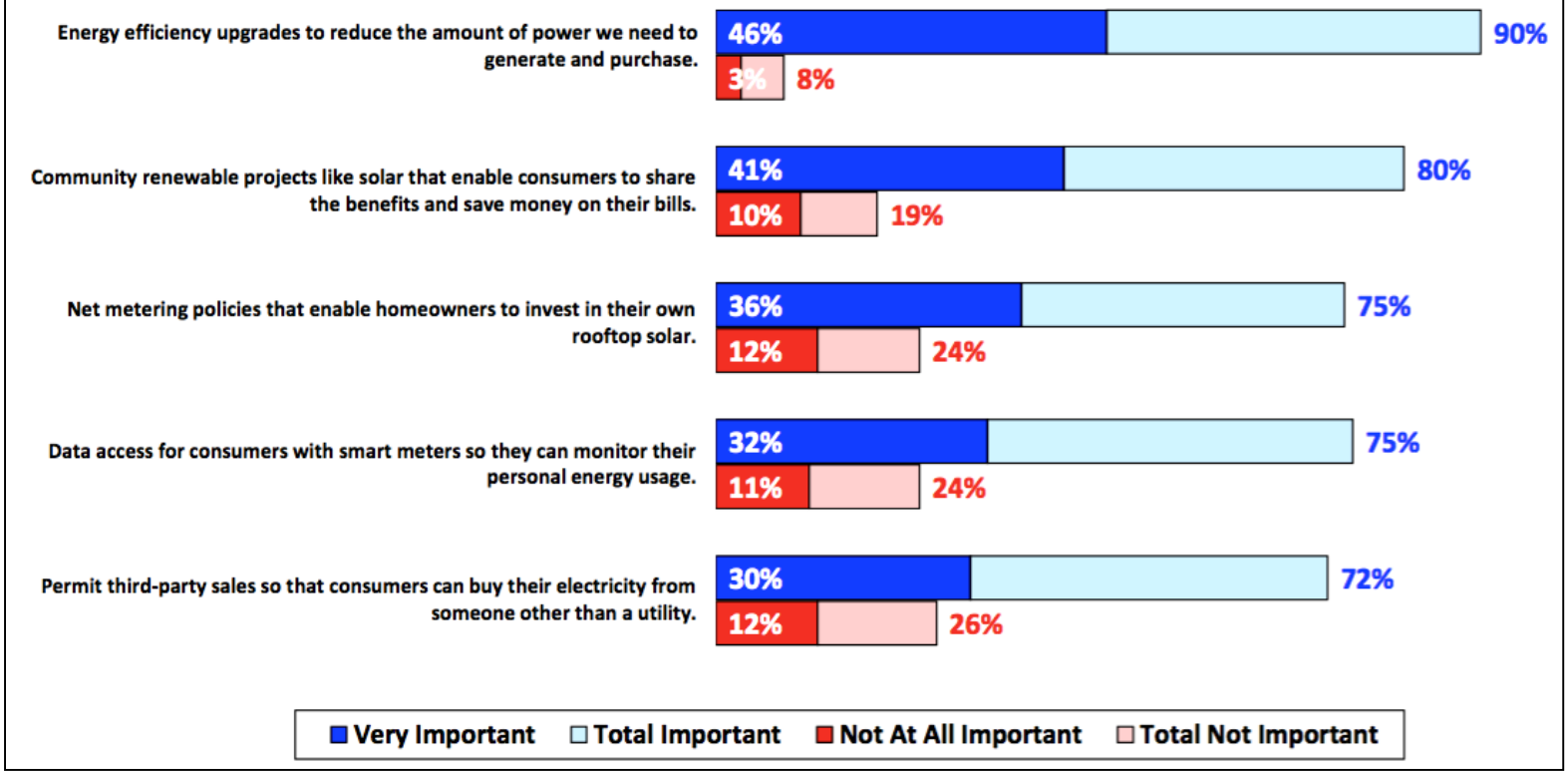


Public Opinion Strategies for the the Conservative Energy Network post-election polling, showed across the board support for more solar development & use. Source: www.POS.org

Energy efficient upgrades and community renewable projects are the most important to Trump voters.

"Now I am going to read you a list of policies that advocates have prioritized to help expand our state's commitment to clean energy. After I read each one, please tell me whether you think that policy is very important, somewhat important, not too important, or not important at all."

Ranked by % Very Important by Trump Voters



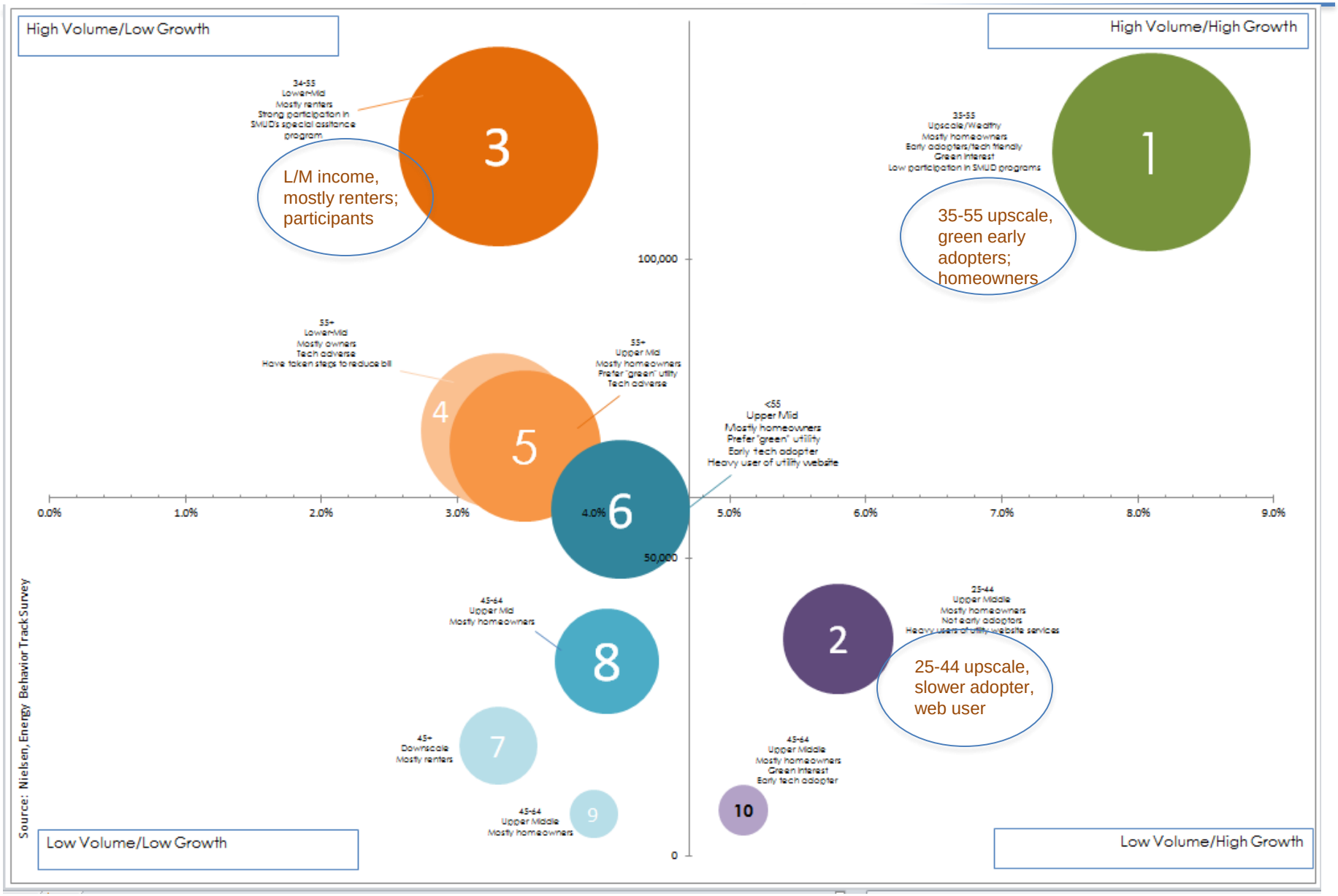
"Community renewable projects like solar … to share the benefits and save money on bills." Rated 80% important (40% very important) by Trump voters. Source: www.POS.org

But We Are Not Surprised…

- According to Shelton Group* about 60% of Americans are interested in solar; 34% say they're seriously considering it.
- Once informed about community solar, 46% of those say they're interested in the CS option. Interest in rooftop and CS is about evenly split.
- CSVP is interested in more finely segmenting the CS market, so utilities appeal to real drivers. Is it possible to customize delivery, without altering utility systems?
- Example: Shelton finds that while "saving energy" is named as the top driver for action, that is not an effective driver. Lower ranked drivers may be more heartfelt.

*Shelton Group and SEPA. (2016). www.sheltongrp.com

Example of SMUD Residential Segments



Let's Hear More!

- In any utility territory, there are sub-groups that want similar services, but respond to different drivers.
- Community solar adapts to different drivers… IF you do market research homework.

Our Speaker:

Jenn Mitchell-Jackson is a Partner with Grounded Research and Consulting, which is a research and consulting firm that focuses on energy-related program design, marketing, and evaluation. She has more than 20 years of experience with energy, education and consumer research.

5 Steps to Tailored Market Research

for Community Solar Programs

Jenn Mitchell-Jackson, Partner
Grounded Research and Consulting

March 1, 2017

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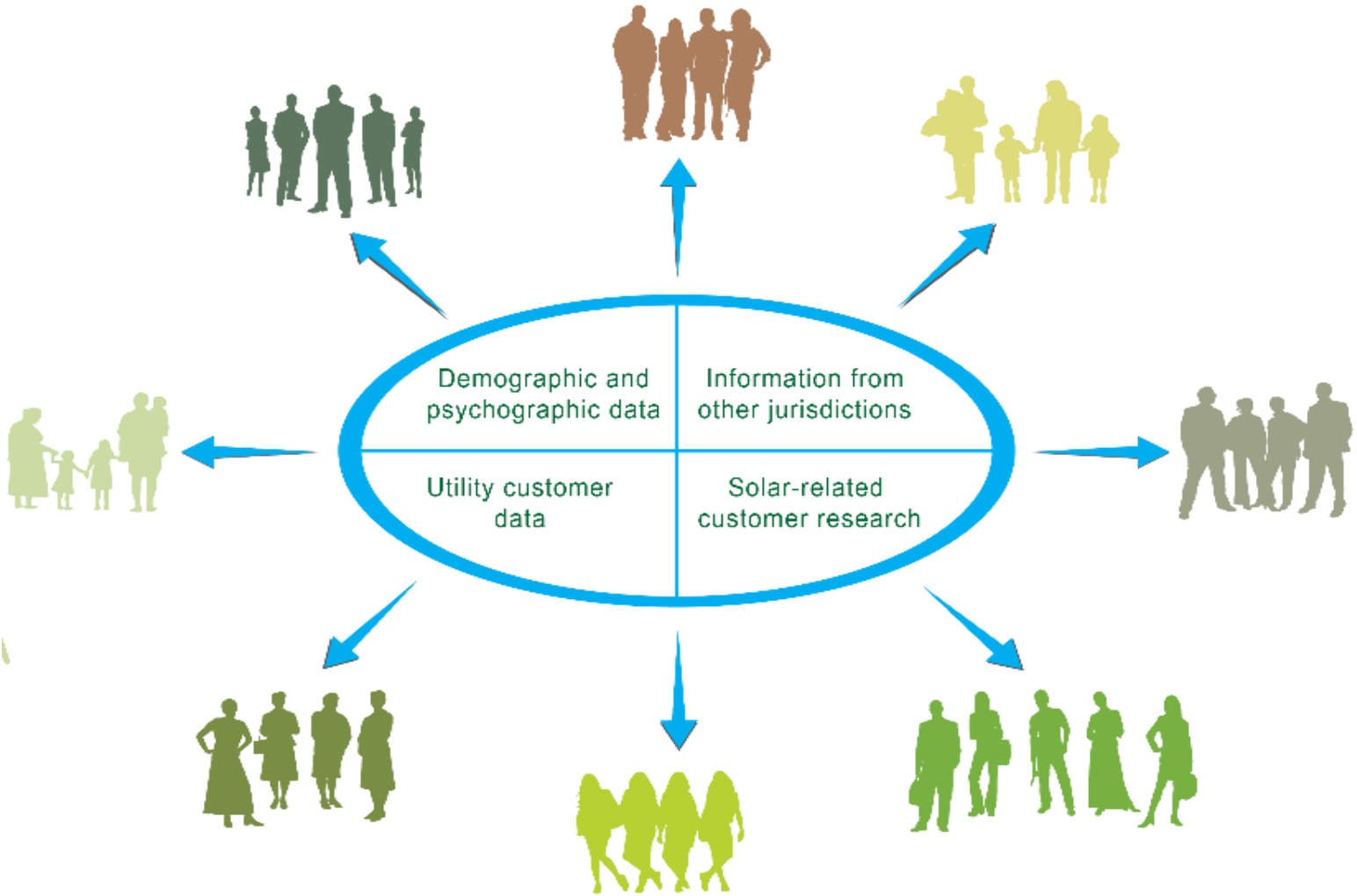
Using Market Research and Market Segmentation

- To understand variation in customer sub-groups in advance of offering a community solar program
- Can help to…
  - Improve program success
  - Reduce customer acquisition costs



Checklist

1. Assessing Needs
2. Drawing on Outside Research
3. Mining Customer Data
4. Interviewing Customers
5. Feedback Loops

Market Research Checklist for Designers of Utility-Based Community Solar Programs

☐ **Step 1. Assessing Needs**

Determine where the utility needs assistance the most (e.g., overall program design, identifying top targets, identifying companion measures, determining marketing messages)

☐ **Step 2. Drawing on Outside Research**

Build on knowledge from other utilities and outside resources (but question the questions and understand that education on community solar will be critical)

☐ **Step 3. Mining Customer Data**

Understand what customers want and need through data mining

- ☐ Explore existing target market segmentation related to any existing utility programs or services
- ☐ Assess and tap into existing data sources, such as energy usage patterns or survey data

☐ **Step 4. Interviewing Customers**

Collect community solar specific data

- ☐ Determine opportunities to (1) collect data through primary research and (2) leverage cross-departmental resources for gathering data
- ☐ Conduct qualitative research, such as focus groups or in-depth interviews, to explore issues
- ☐ Conduct customer surveys to test hypotheses and explore alternative options
- ☐ Analyze all available data to inform the development of the program and marketing plan

☐ **Step 5. Developing a Program Design with Feedback Loops to Monitor and Adjust**

Develop an interactive program-design process, integrating enhancements based on customer feedback with technical concerns, such as project siting and design, pricing, customer sign-up and billing, etc., to create a win-win for both the customer and the utility. Build in feedback loops to monitor and adjust.

Step 1. Assessing Needs

Understanding how market research and market segmentation can help…

…and asking the right questions

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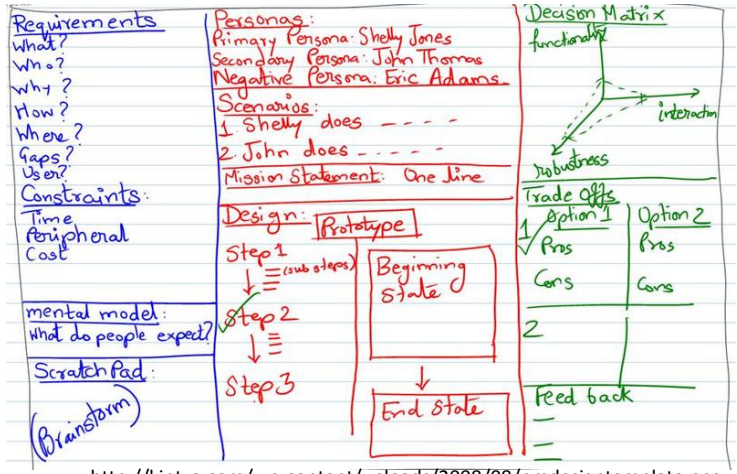
Step 1. Assessing Needs

How can research and segmentation help?

- Designing the offering
  - participant terms
  - payment structures
  - companion measures
  - product bundles

Where do I need the most help?

Brainstorming program elements



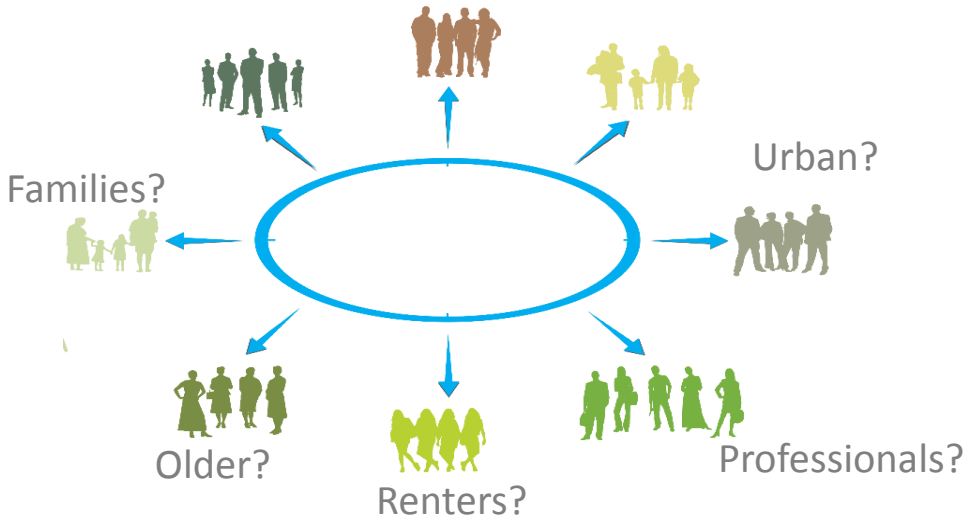
http://kintya.com/wp-content/uploads/2008/08/pmdesigntemplate.png

Step 1. Assessing Needs

How can research and segmentation help?

- Designing the offering
- Identifying target markets

Where do I need the most help?



Step 1. Assessing Needs

How can research and segmentation help?

- Designing the offering
- Identifying target markets
- Determining best messages

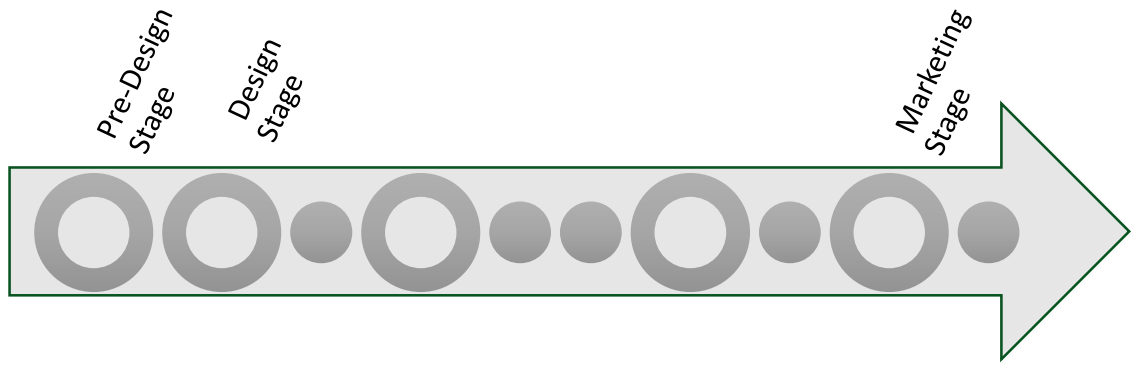
Where do I need the most help?

https://www.mobilecommons.com/wp/wp-content/uploads/2015/02/sms-capabilities.jpg

Step 1. Assessing Needs

Where are you in the process?

- Marketing stage
  - Utility-centric approach
- Program design stage
  - Customer-centric



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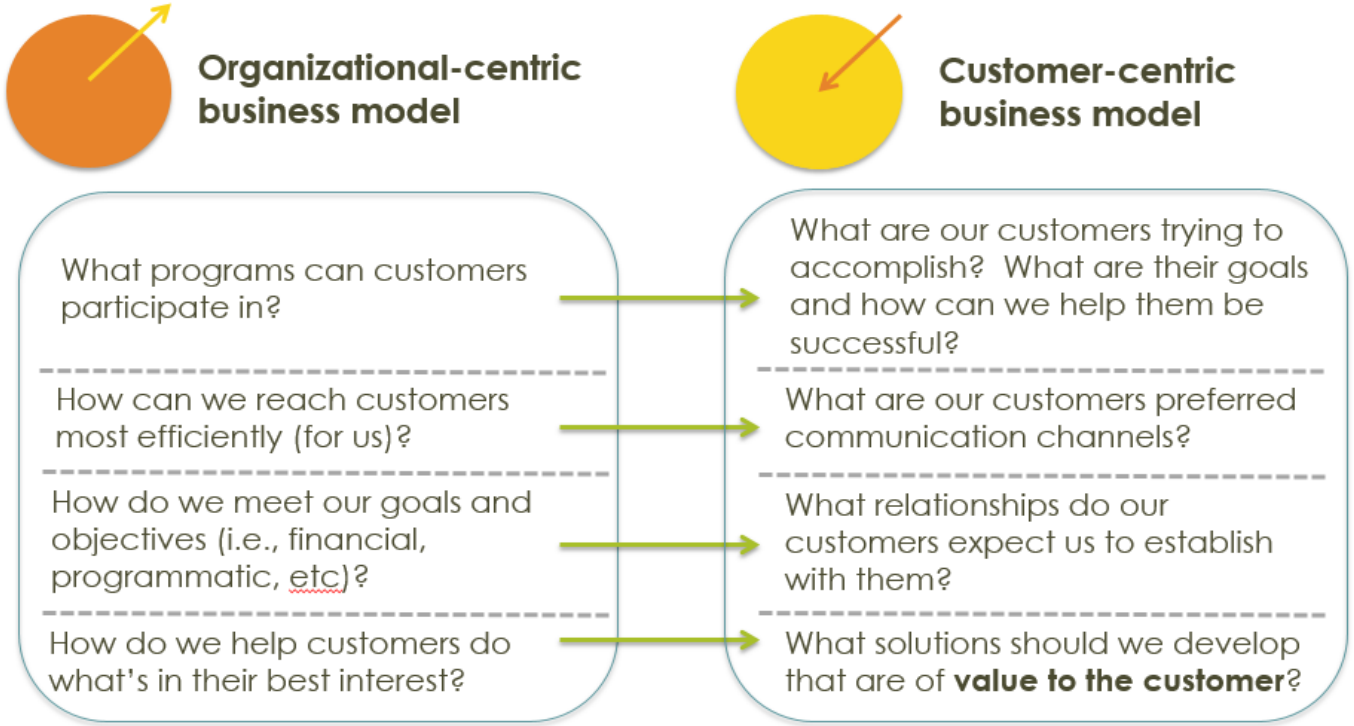
A Shift in Perspective



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Step 2. Drawing on Outside Research

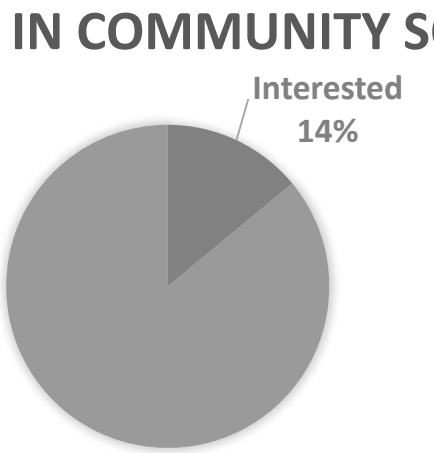
- Resource list on CSVP website
  http://www.communitysolarvalueproject.com

Step 2. Drawing on Outside Research

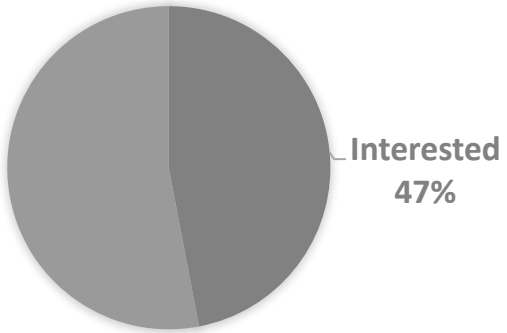
- How were the questions asked?

http://coolconversationslive.com/wp-content/uploads/2013/08/4-ways-balance-job-search.jpg

How were questions asked?



When respondents educated about the concept, that number shot up…



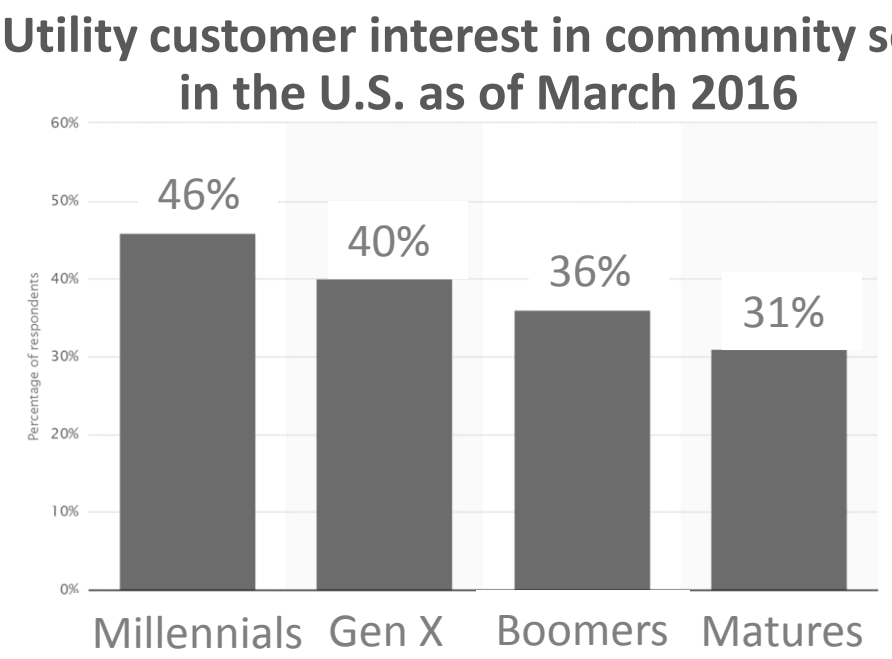
http://utilitysolar.report/

Step 2. Drawing on Outside Research

- How were the questions asked?
- Who was asked?

http://coolconversationslive.com/wp-content/uploads/2013/08/4-ways-balance-job-search.jpg

Who was asked?



This survey displays the share of electricity utility consumers that are extremely or very interested in community solar as of March 2016

https://www.statista.com/statistics/567154/community-solar-interest-in-the-us-by-generation/

Step 2. Drawing on Outside Research

- How were the questions asked?
- Who was asked?
- Regional difference, price differences, etc.?

http://coolconversationslive.com/wp-content/uploads/2013/08/4-ways-balance-job-search.jpg

Regional differences?

Interest?

- Highest electric costs
- 29% already have rooftop solar
- Awareness and demand for solar is high

Hawai'i ranks #1 in the nation in electric costs.[7]
Residential rates (schedule R - Tier 2)

32.9 cents/kWh	Kaua'i
27.3 cents/kWh	O'ahu
33.6 cents/kWh	Moloka'i
34.7 cents/kWh	Lana'i
28.4 cents/kWh	Maui
32.2 cents/kWh	Hawai'i Island
11 - 12 cents/kWh	U.S. Average

https://hawaiienergy.com/about/get-the-facts

Step 2. Drawing on Outside Research

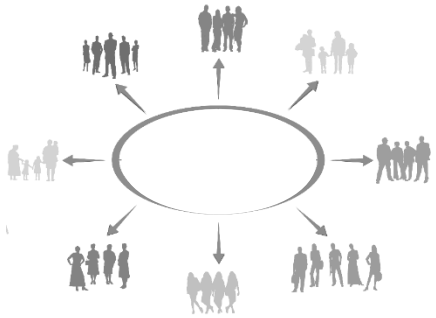
- How were the questions asked?
- Who was asked?
- Regional difference, price differences, etc.?
- Are there multiple studies that show similar results?

Multiple studies that show similar results

http://coolconversationslive.com/wp-content/uploads/2013/08/4-ways-balance-job-search.jpg

Step 2. Drawing on Outside Research

- Who?
  - White collar
  - Married/Parents/Women
  - Homeowners
  - Higher average energy use



- What attributes?
  - Lower costs
  - Beneficial terms
  - Real-time information
  - Local siting

- What messages?
  - Saving money
  - Saving the environment
  - Being a role model for children
  - Time management

Step 3. Mining Customer Research

- What do you already know about your customers and their interests?
- Do you have customers who are interested?

Step 3. Mining Customer Research

Utility Data Only

SECONDARY DATA

Utility and Procured Data

Minimal Data
- Elect/gas usage
- Payment history
- Census block

Limited Data
- Elect/gas usage
- Payment history
- Census block
- Participation data
- Ability to purchase some data

Robust Data
- Elect/gas usage
- Payment history
- Census block
- County data
- Participation data
- Demographic data
- Psychographic data

What customer data is available internally?

- Available data will vary by utility or organization
  - Usage and customer data
  - ⬇
  - Participant data
  - ⬇
  - Purchased data
  - Psychographic data

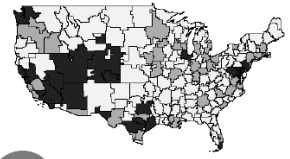
Step 3. Mining Customer Research

PLUGGED IN FAMILIES

17% U.S. Households

Energy Efficient Program Participation

ENERGY BEHAVIORS
- Participate in Appliance Rebates, Load Management Programs
- Use Programmable Thermostat to Adjust Temp in Off-Peak/Seasonal
- Use 11+ CFLs, Light Timers
- Use Sprinkler Timer; Have Low Water Plants
- Drive Hybrid, Plug In Electric Vehicles
- Participate in Time of Use Rates, Real Time Pricing
- Participate in Online Energy, Whole House Audits
- Use Energy Company Online Service to Monitor Use
- Have 2+ Refrigerators
- Added Shade Screens to Save Energy
- Use <10% of Monthly Income for Energy Bills



WHO THEY ARE

DEMOGRAPHICS
- Age 25-54 (40% Age 35-44)
- Income $75k+ (63% $75k-$200k)
- Married Couples with Kids
- 84% Work Full-Time
- 74% Caucasian, 6% Asian; 14% Hispanic

HOUSING CHARACTERISTICS
- 84% Home Owners
- Reside in Urban, Suburban Areas
- Home Value $200k+
- Length of Residence 1-4 Years
- Home Built, 2000 or Later

WHAT THEY THINK

ATTITUDES & OPINIONS
- Prefer Carbon Neutral/Green Energy: Solar Power
- Would Pay $10 More per Month For Smart Meter Service
- Conserve Energy to Improve the Environment
- I Feel I am More Environmentally Conscious than Most

LIFESTYLE & MEDIA CONSUMPTION

LIFESTYLE & SHOPPING
- Active Lifestyle: Jog, Ski, Weight Lift, Exercise at Club
- Download/Purchase Music; Go to the Zoo
- Spend $200+ on Children's Toys; Rent Children's Videos
- Shop at The Gap, Old Navy, Costco, Best Buy, Target

ONLINE
- Heavy Internet Users
- Order from amazon.com, zappos.com, ebay, target.com
- Use Internet for Real Estate Information, Download Music, Financial Information
- Visit cnn.com, expedia.com, iTunes.com, shutterfly.com

MOBILE
- Use Apps Multiple Times a Day
- Use Cell Phone or Tablet to Access WiFi
- Has iPhone or Blackberry

RADIO
- Above Average Radio Listeners
- Listen to Contemporary Hits, Alternative Rock

PRINT
- Read Parenthood, Sports, News Weekly Magazines

SOCIAL MEDIA
- Use Facebook and Twitter Daily
- Use LinkedIn Weekly or Less often

What customer data is available internally?

- Available data will vary by utility or organization
  - Customized utility segments
  - ESource and Prizm segments
- Asking the right questions…
  - Access to Prizm data?
  - Any purchased data?
  - Available resources?

Step 4. Interviewing Customers

- The best information is customized…
  - Build on, but go beyond, existing knowledge

http://indypolitics.org/wp-content/uploads/2016/07/our-survey-said.jpg

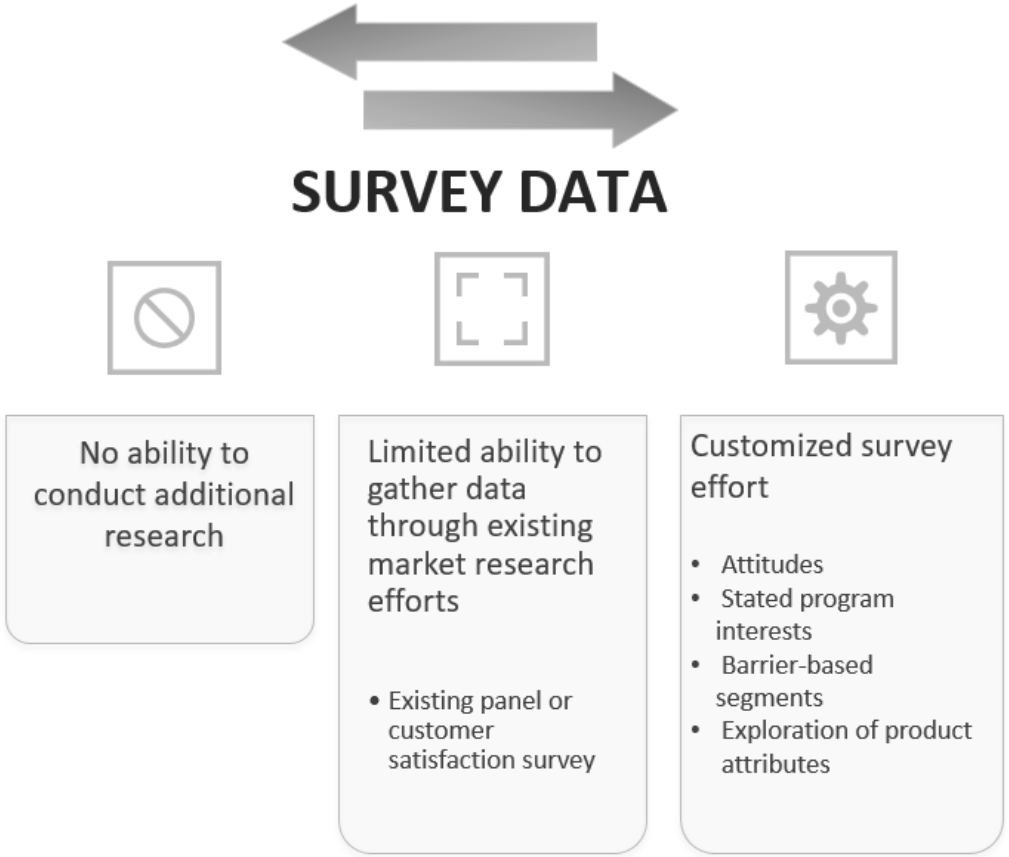
Step 4. Interviewing Customers

- Qualitative research
  - Focus groups or in-depth interviews
  - Limited, but allows for exploration

What have others learned from research efforts?

Past focus groups have had a very difficult time getting customers to understand community solar

Step 4. Interviewing Customers



What internal resources can you draw on?

- Customer Survey Research
  - No Ability
  - Limited Ability
    - Existing market research panels
    - Annual customer surveys
    - Gen pop surveys
  - Customized community solar survey effort

Step 4. Interviewing Customers

SURVEY DATA

No ability to conduct additional research

Limited ability to gather data through existing market research efforts

- Existing panel or customer satisfaction survey

Customized survey effort

- Attitudes
- Stated program interests
- Barrier-based segments
- Exploration of product attributes

What types of data can you collect?

- Customer Survey Research
  - Attitudes and interest
  - Product attributes
    - Upfront cost v. monthly premium
    - Preferred contract length
  - Optional companion offerings
  - Key motivations and barriers
  - Messaging

Step 4. Interviewing Customers

Model 1	Model 2
8% interest	22% interest
$600/panel	$350/panel
Unspecified location	In community
No data available	Website that provides data

Example data to demonstrate how survey research can be used to design offering to optimize participation.

Research can be used to…

Look at trade-offs and explore attributes of a project to understand how to maximize participation

Understand how much customer demand exists

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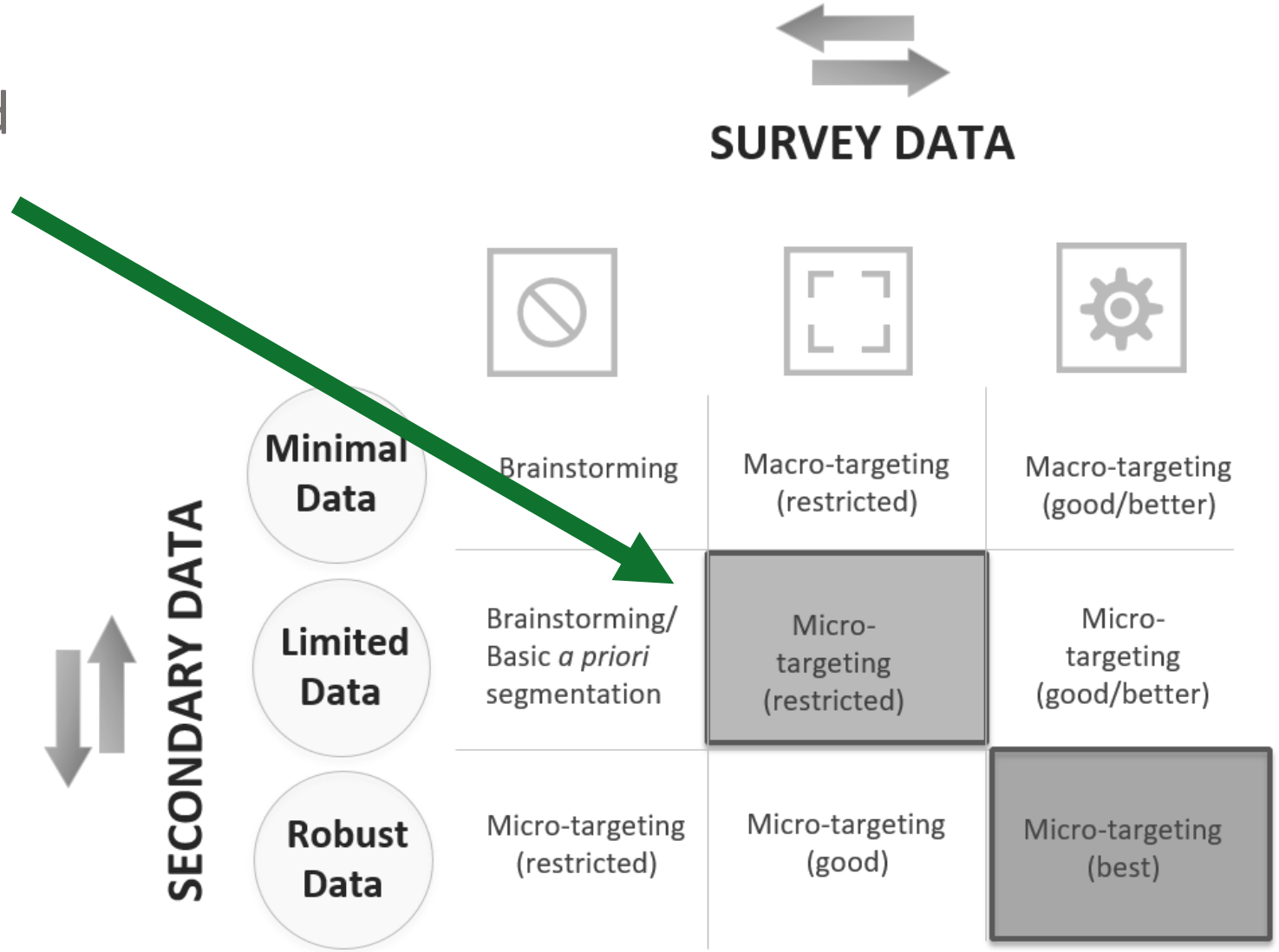
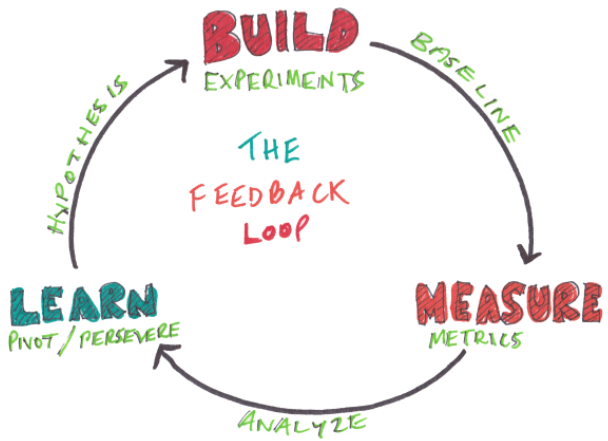
Options

I have limited resources…



I have resources to research and explore…

Step 5. Feedback Loops



- Design involves a cross-departmental group of experts
- Build in feedback loops to continuously monitor and adjust
- Determine the best information to track
- Consider testing various options

https://conversionxl.com/generate-customer-feedback-loops-scale/

For more information

For more information on the CSVP project, and additional resources to help design community solar projects, go to

www.communitysolarvalueproject.com

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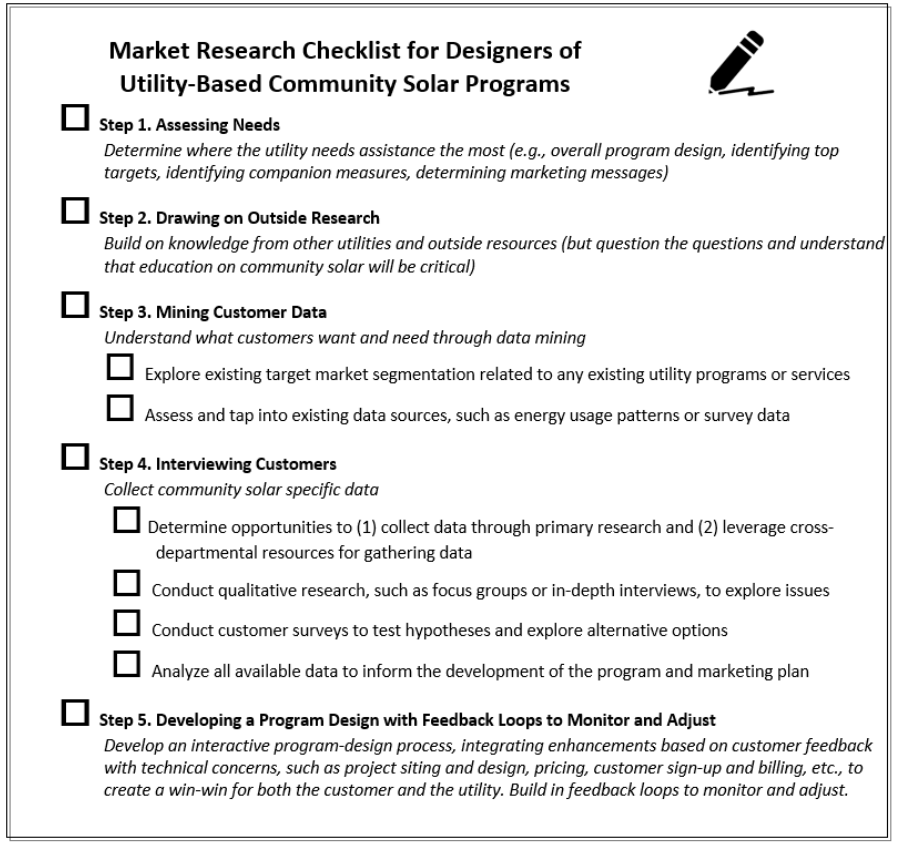
Email: jennifer@grounded-research.com

Phone: 415-933-9457



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