

Out of the Box Solutions To Make Community Solar Better

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Community Solar Value Project Team Leader

Community Solar Procurements, Programs and Pricing
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Community
Solar Value
Project



- Led by Extensible Energy, with funding from US DOE SunShot. Jill Cliburn, CSVP Project Team Leader, comes from Cliburn and Associates, one of four firms supporting this effort.



- CSVP works with utilities, industry innovators, and community partners. The Project provides demonstration and documentation of four ways to make utility-led community solar better, including:



- strategic design
- target marketing
- procurement and pricing
- solar-plus integration



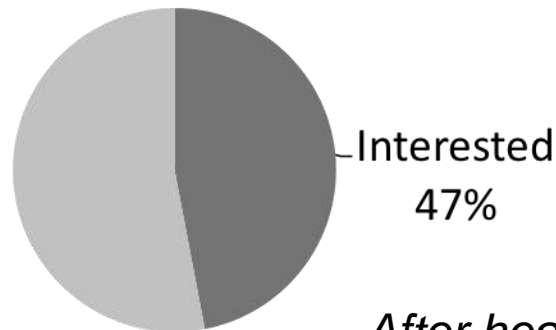
www.communitysolarvalueproject.com



Doing Well, Thank You

- 1) Yearend '16 CSS capacity ~200 MW (GTM/SEIA)
- 2) Now 17 states with CSS policies or legislation
- 3) In other states, utilities can—and do—lead new programs
- 4) Market potential? Community-shared? Community-scale?

Interest in Community Solar



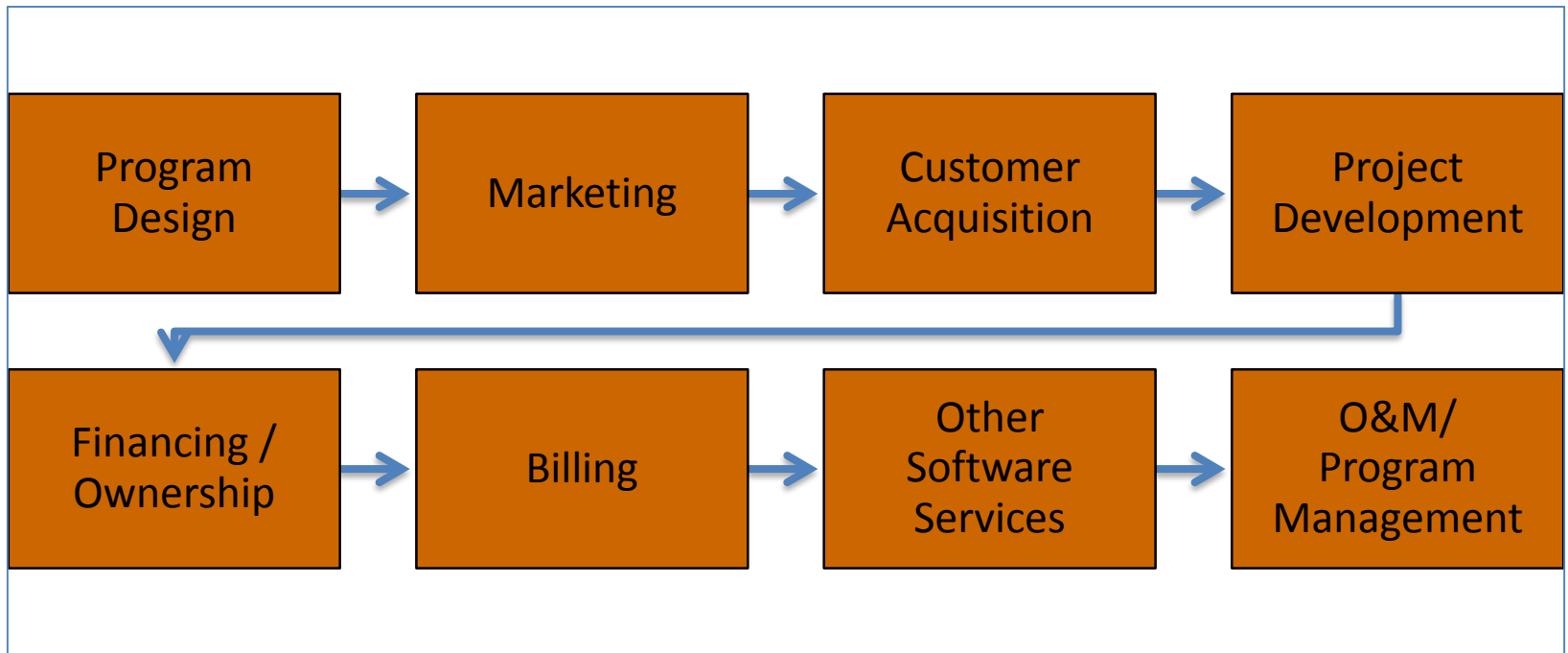
After hearing a description of CSS, nearly half of residential customers say they are interested.

(Shelton and SEPA, 2016)

Define “Better”

- ✓ Cheaper
- ✓ Faster
- ✓ Farther reaching
- ✓ Forward leaning
- ✓ A market-based laboratory

One Process of Many



Source: Navigant for CSVP

Customer Offer

Upfront Payment
(\$/W)

Ongoing
Payment (\$/kWh)

Economic Proposition

Bill Credit

Line Item Payment

One-Time Sign-Up Fee

None

Refundable Down
Payment

REC Treatment

Retired

Transferred
to Customer

Held or Sold
to Market

Siting and Scale

Community:
Small Scale

Economically
Optimal:
Small to Large

Participation Limit: Usage

50% Average
Consumption

100% Average
Consumption

120% Average
Consumption

Participation Limit: Capacity

10% to 50% of
CSG capacity

Production Guarantee

Variable Output

Fixed Output

Minimum Term

None

12 months

24 months

Program Length

<10 Years

20–25 Years

System Life

Subscription Transfers

Transferrable

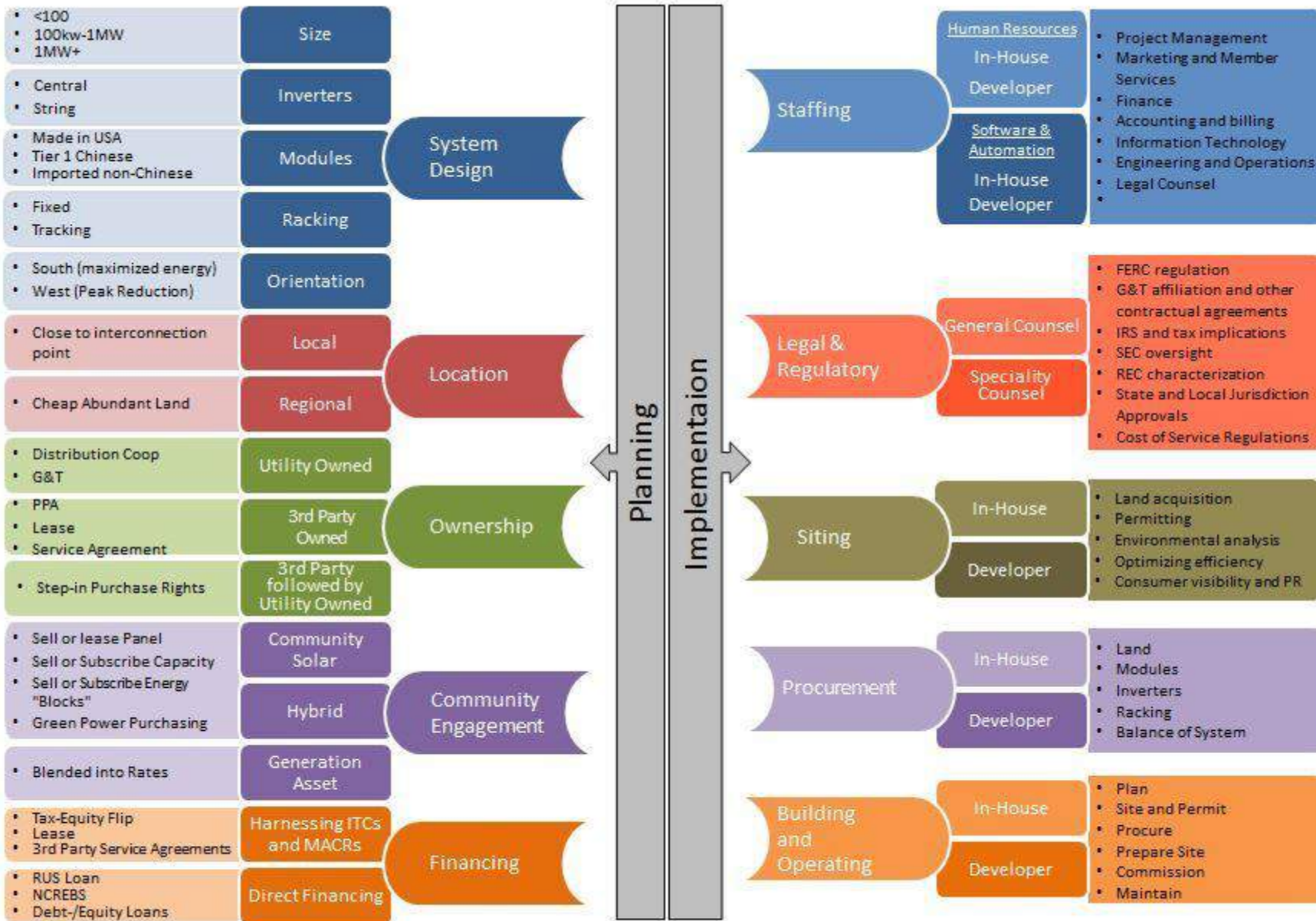
Not Transferrable

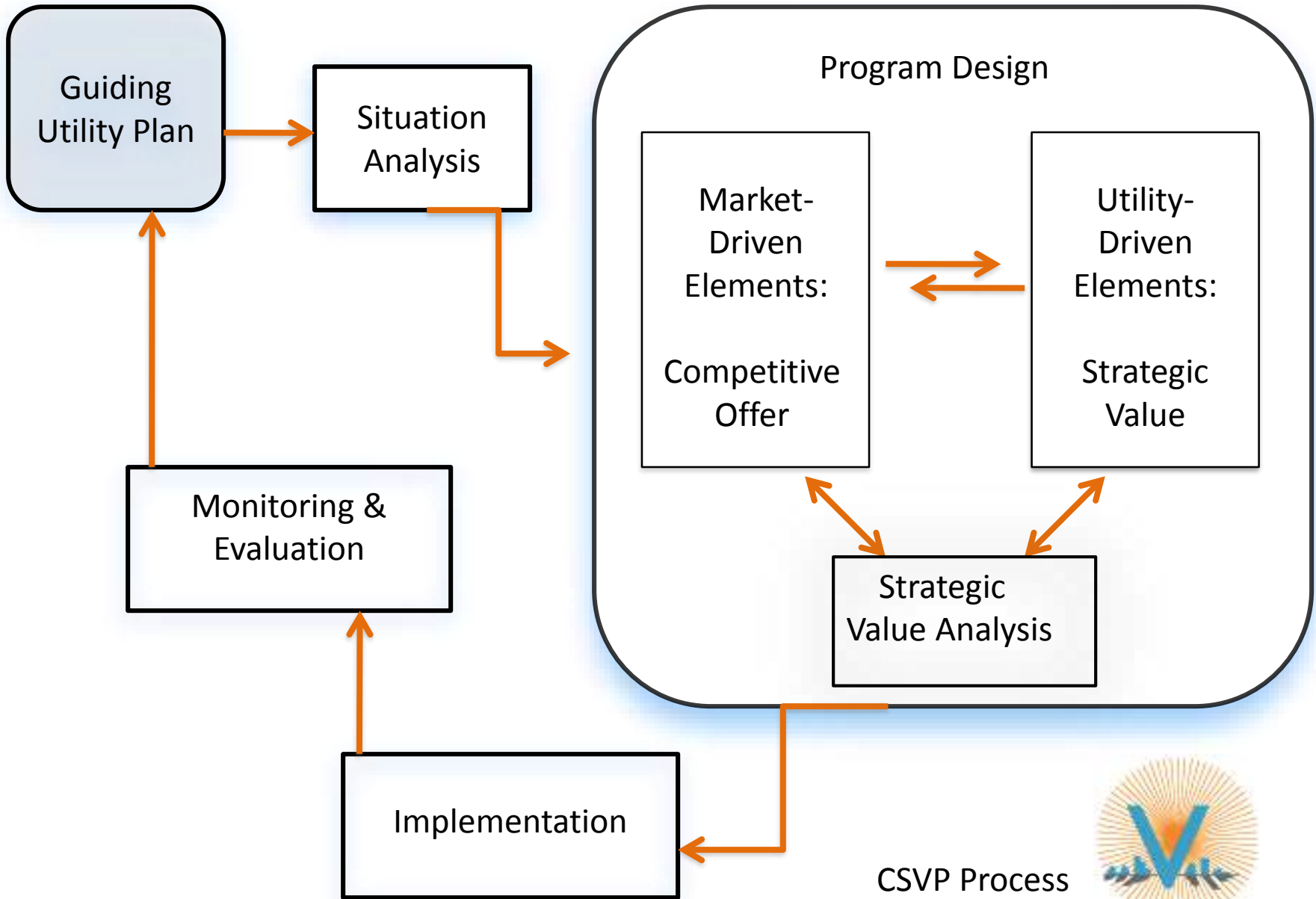
Unsubscribed Energy

Socialized

Remarketed

Below the
Line





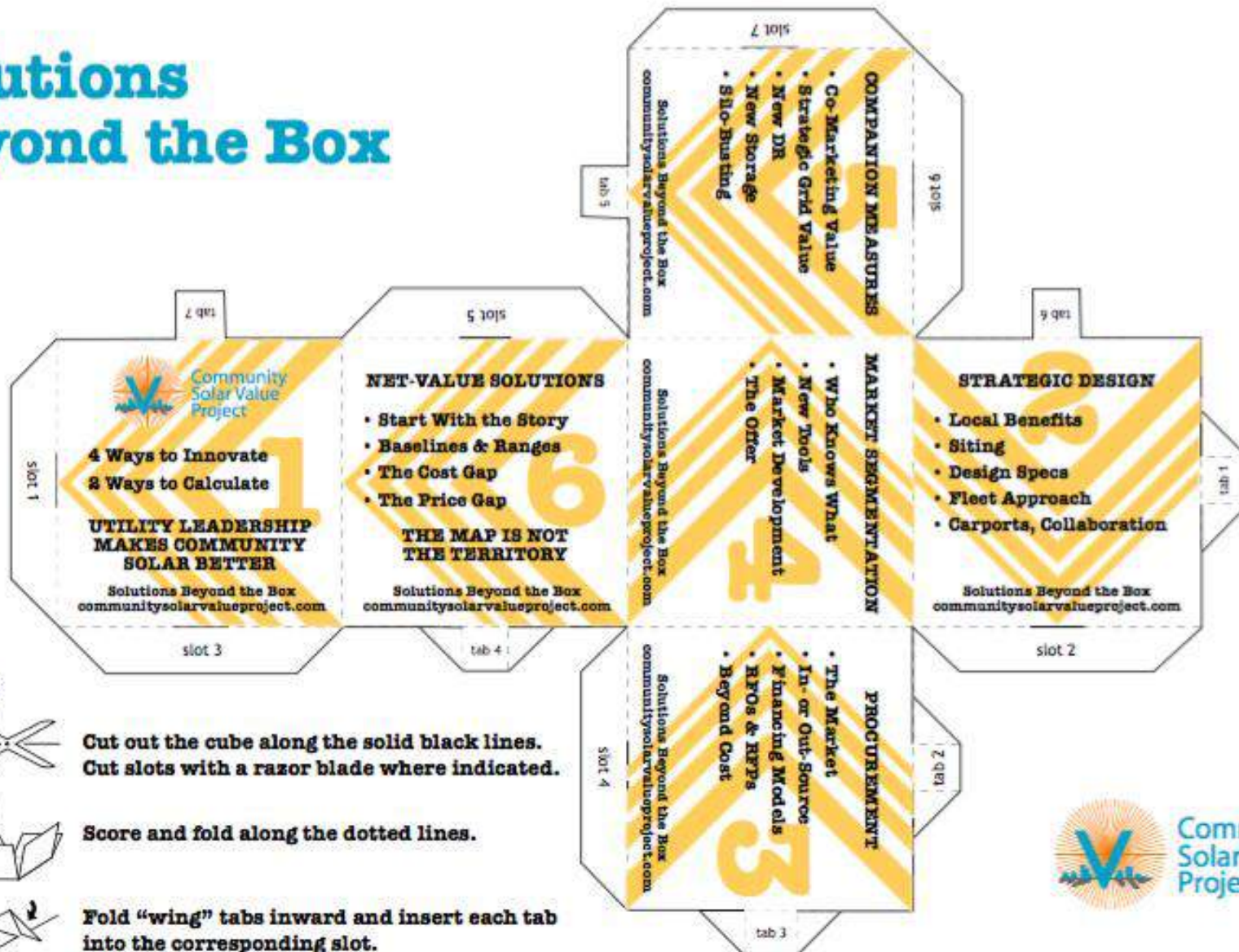
CSVP Process








Source: otbcorp.com

Solutions Beyond the Box



Assembly:

- (a)  **Cut out the cube along the solid black lines. Cut slots with a razor blade where indicated.**
- (b)  **Score and fold along the dotted lines.**
- (c)  **Fold "wing" tabs inward and insert each tab into the corresponding slot.**

Checklist: Community Solar Market Research

- ✓ Assess market research needs
- ✓ Draw on outside resources
 - ✓ ... *question the questions*
 - ✓ ... *listen and learn*
- ✓ Draw on internal customer data
- ✓ Draft your customer offer ...*iteratively*
- ✓ Engage customers to test it
- ✓ ... and engage them to develop your delivery approach
- ✓ Implement, monitor, improve

Listening to Customers Makes a Difference

Rate Model: Low Probability of Success	Rate Model: High Probability of Success
2-yr. term; option to renew	20-year term; may opt-out
\$100 non-refundable “sign-up fee”	No fee or small, refundable deposit
3 to 5 cent premium/kWh	0 to 2 cent premium/kWh
Solar gen from unrelated 3 rd parties	Utility owner or co-sponsor
Distant project/s	Local project/s
No real-time production information	Web portal or phone app
11% Support in Survey Testing	89% Support in Survey Testing

Source: Shelton Group for SEPA, 2016

Listening to Customers Makes a Difference

Panel Model: Low Probability of Success	Panel Model: High Probability of Success
20-yr. term	5- to 10-year term
\$595+/panel or share	\$395 or less/panel or share
No financing	On-bill financing
Power to grid; no ownership	Ownership of power; even better, of panels
Solar gen from unrelated 3 rd parties	Utility owner or co-sponsor
Distant project/s	Local project/s
No real-time production information	Web portal or phone app
16% Support in Survey Testing	84% Support in Survey Testing

Source: Shelton Group for SEPA, 2016

Market Research Pitfalls

- Eroding commitment
- Cherry picking (studies, subjects, results)
- Mass-market mania
- Collab-horroration
- ...
- ...



Similarly, With Analytic Tasks...

- RFS
- Unchecked assumptions
- Zeroing out refutable values
- Mistaking the limits of modeling
- Silos and sanctums
- ...
- ...



Start With A Story

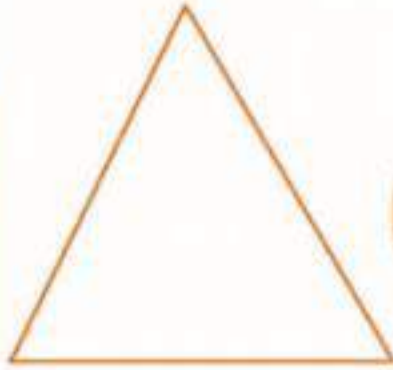
Success Across Silos

- 1) Reward the broader view
- 2) Apply marketing lessons



Photo: Silos in Vancouver, BC, Brent Toderian

Quick! Pick One



Success Across Silos

- 1) Reward the broader view
- 2) Apply marketing lessons
- 3) Identify disincentives; respect what you can't change
- 4) Examine your own role



Photo: Silos in Vancouver, BC, Brent Toderian

Success Across Silos

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- 5) Create a campaign



Photo: Silos in Vancouver, BC, Brent Toderian

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- 6) Work with innovators



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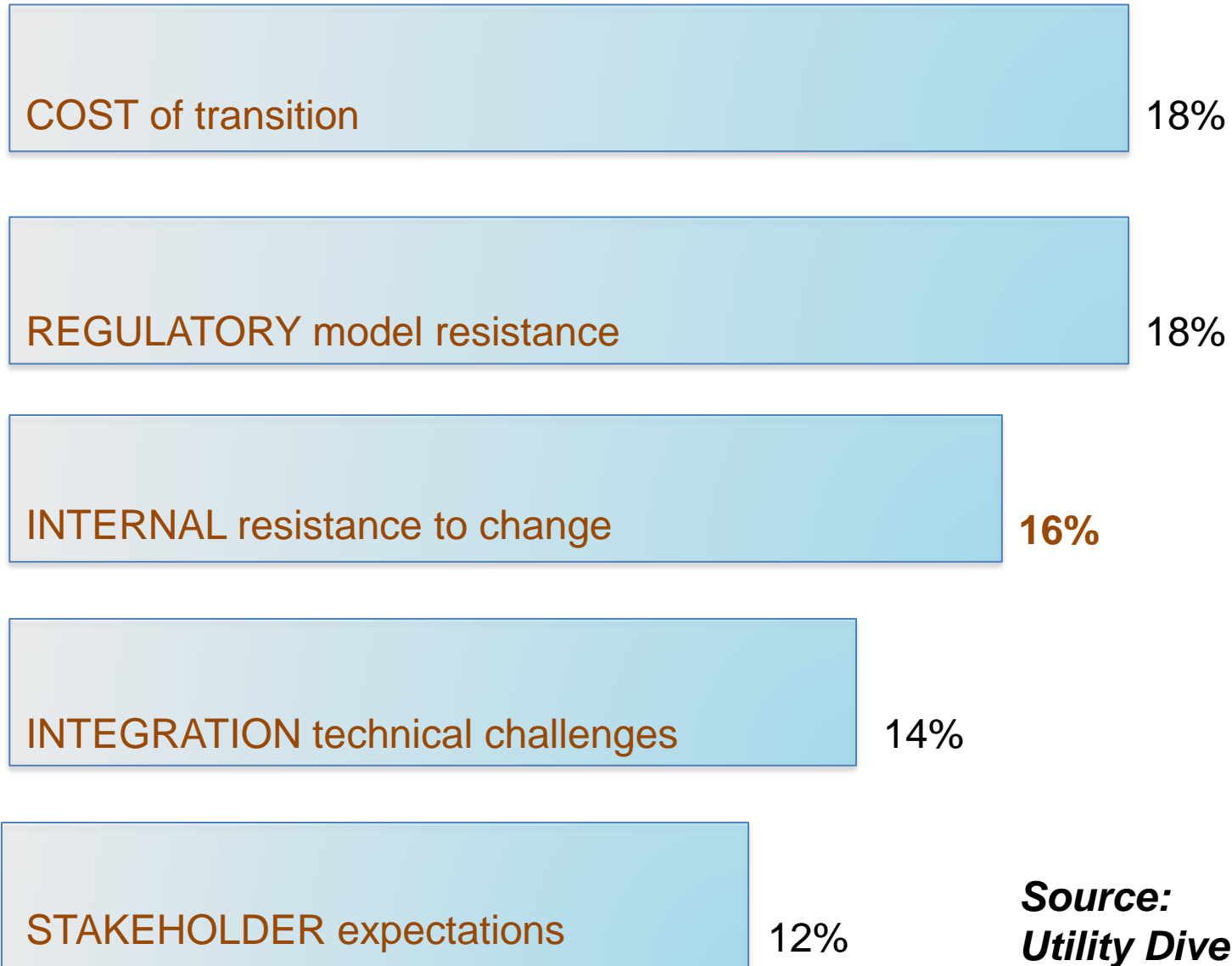
Photo: Silos in Vancouver, BC, Brent Toderian

One More Thing

“Top-level support is the top predictor of program success.”

No way around it.

Top 5 of 9 Obstacles to Utility Transformation



Source:
Utility Dive March 2017



Photo: PUF, March 2014

“Most senior managers fear that giving strategic guidance to their organizations will stifle their creativity and their willingness to “think outside the box.”

-VJ

Govindarajan

In fact, leadership opens the box and frees staff creativity.

The Presenter and the Project

Jill K. Cliburn is principal consultant of Cliburn and Associates, LLC and project team leader of CSVP.

As a relentless utility innovator, she has focused on helping utilities design community solar and solar-plus strategies since 2009. **Contact her at jkcliburn@CliburnEnergy.com**

The Community Solar Value Project led by Extensible Energy, Lafayette, CA, (John Powers, Project Director) with support from Cliburn and Associates, Navigant, Olivine and Millennium Energy.

**See more at www.CommunitySolarValueProject.com
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