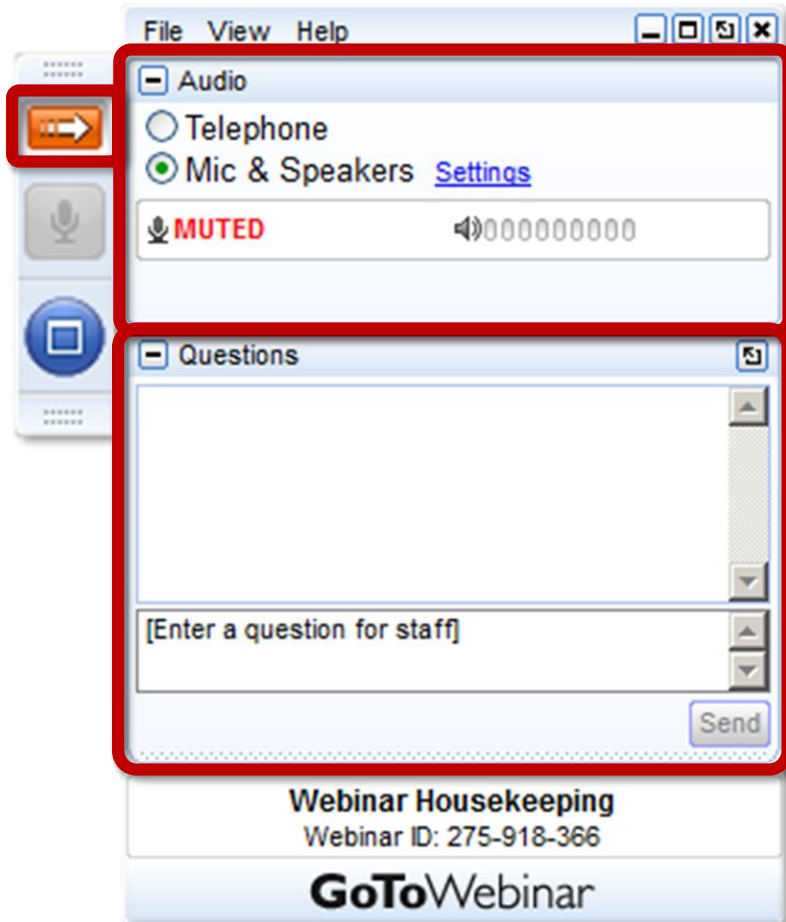


Community Solar for Low- and Moderate- Income Consumers

June 1, 2017



Housekeeping



Use the red arrow to open and close your control panel

Join audio:

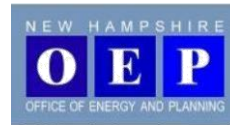
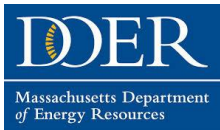
- Choose Mic & Speakers to use VoIP
- Choose Telephone and dial using the information provided

Submit questions and comments via the Questions panel

This webinar is being recorded. We will email you a webinar recording within 48 hours. CESA's webinars are archived at www.cesa.org/webinars



Clean Energy States Alliance



Sustainable Solar Education Project

- Provides information to state and municipal officials on strategies to ensure distributed solar electricity
 - 1) Remains consumer friendly
 - 2) Benefits low- and moderate-income households
- The project is managed by the CESA and is funded through the U.S. Department of Energy SunShot Initiative's Solar Training and Education for Professionals program.

Sustainable Solar Education Project Resources

The Sustainable Solar Education Project is developing a variety of educational resources solar equitability and consumer protection:

- **Guides**
- **Webinars**
- **Online course material**
- **In-person training**

The project publishes a free **monthly e-newsletter** highlighting solar equitability and consumer protection news and from across the country.

www.cesa.org/projects/sustainable-solar



Clean Energy States Alliance
SUSTAINABLE SOLAR EDUCATION PROJECT
NEWSLETTER

MAY 2017

The Sustainable Solar Education Project provides information and educational resources to state and municipal officials on strategies to ensure distributed solar electricity remains consumer friendly and benefits low- and moderate-income households. The project is managed by the Clean Energy States Alliance (CESA) and is funded through the U.S. Department of Energy SunShot Initiative's Solar Training and Education for Professionals program.

The Sustainable Solar Education Project Newsletter reports on issues related to solar equitability and consumer protection.

For more information about the Sustainable Solar Education Project, please visit our [website](http://www.cesa.org/projects/sustainable-solar).

[cesa.org/projects/sustainable-solar](http://www.cesa.org/projects/sustainable-solar)



Clean Energy States Alliance

Sustainable Solar Education Project Webinars

Bringing the Benefits of Solar to Low-Income Customers
Thursday, May 18th, 1-2 pm ET
CESA will conduct a webinar on low-income solar program and policy design. The webinar will be based on a recently released CESA guide authored by Bentham Paulos titled [Bringing the Benefits of Solar to Low-Income Consumers](#). The guide identifies successful and promising approaches, offers factors policymakers should consider, and provides policy and program design recommendations for bringing the benefits of solar to low-income consumers. [Register here](#).

Crowd Financing Solar for Nonprofits Serving Low-Income Communities
Thursday, May 25, 1-2 pm ET
Nonprofit community service providers that serve low-income communities have faced challenges in financing solar for their own facilities. One answer that has emerged is crowdfunding, in which many individuals each provide a small amount of money for a project. Crowdfunding can involve donations, or it can involve investments, in which the individuals who participate expect a financial return. In this webinar, Andreas Karelis, Executive Director of RE-volv, and Todd Bluechel, Vice President of Marketing and Sales at CollectiveSun, will present two models that rely on crowdfunding to enable nonprofits to adopt solar. [Register here](#).

Community Solar for Low- and Moderate-Income Consumers
Thursday, June 1, 1-2 pm ET
Because community solar can be made accessible to renters and can include flexible terms, it holds promise for spreading the benefits of solar to low- and moderate-income (LMI) consumers. In this webinar, Kelly Roache, Senior Program Manager at Solstice, and David Miller, Senior Vice President at Alpine Bank,

Sustainable Solar Education Project Guides

- [Solar Information for Consumers](#)
- [Publicly Supported Solar Loan Programs](#)
- [Standards and Regulations for Solar Equipment, Installation, and Licensing & Certification](#)
- [Solar+Storage for Low- and Moderate-Income Communities](#)
- [Bringing the Benefits of Solar Energy to Low-Income Consumers](#)

Forthcoming:

- [Consumer Protections for Community Solar](#)



Panelists

- **Kelly Roache**, Senior Program Manager at Solstice
- **David Miller**, Senior Vice President at Alpine Bank
- **Noel Hansen**, Vice President and eBanking Specialist, Alpine Bank
- **Diana Chace**, Program Associate, Clean Energy States Alliance



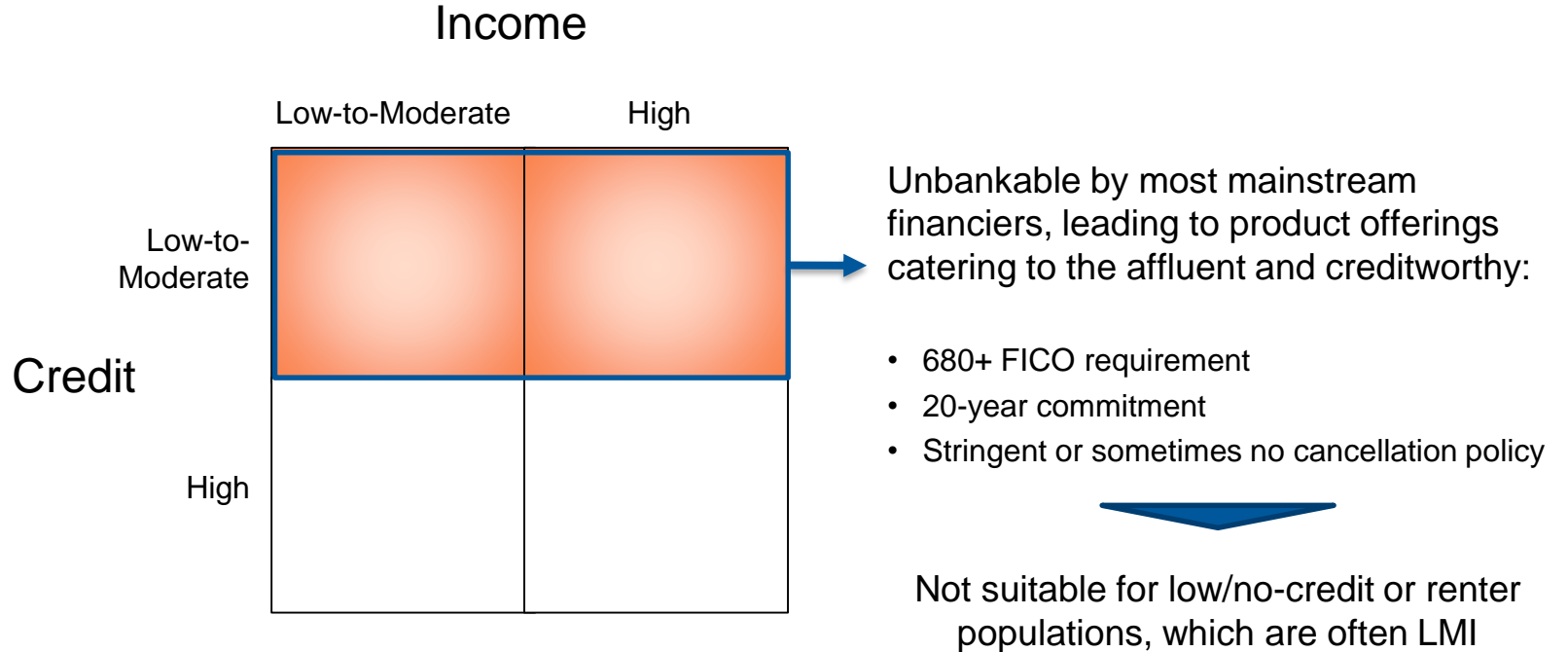
Increasing Low-to-Moderate Income Community Solar Access

Kelly Roache
Solstice
June 1, 2017

Setting the Scene

- Low-to-moderate income households face severely limited access to renewable energy.
 - These same households bear a disproportionate energy burden - even as costs decline.
 - Low-to-moderate income people bear the brunt of the ill effects of climate change.
 - Community solar can uniquely serve low-to-moderate income Americans, and is growing faster than ever.
-

Problem Definition



Creating Access, Growing the Market



Approximately 26 million Americans are credit invisible. Approximately 19.4 million Americans have credit records that cannot be scored.

Almost 30% of all consumers in low-income neighborhoods are credit invisible, and an additional 15% have unscored records. This means that approximately 5 million low-income consumers are credit invisible or have unscored records.

Source: Corporation for Enterprise Development's Excluded from the Mainstream: How the Economic Recovery is Bypassing Millions of Americans (2015)

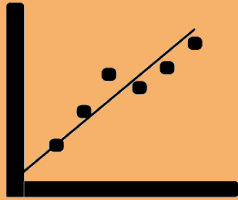
Consumer Financial Protection Bureau's Data Point: Credit Invisible (2015)

Dept. of Energy – SEEDS2

- Solar Energy Evolution and Diffusion Studies 2:
 - Scale LMI inclusion in community solar via alternative qualifying metric to FICO
 - SunShot Initiative grant awarded January 2017
 - Partnership with academics at MIT, Stanford University
 - Three year funding opportunity
-

Developing a Data-Backed Solution

Analyze existing data
to identify trends in
our target
demographic



Construct alternative
qualifying metric:
“EnergyScore”



Collect data through
pilot projects executed
with local partners



Financing Product Innovation

- Short-term contracts
 - Consumer-friendly and -protectionist
 - Serves LMI renter market
 - Reduces need for credit requirements
 - Direct credit support
 - Address bankability by guaranteeing performance
 - Solstice reduces administrative burden
 - Outreach, waitlist, subscription maintenance
 - Sustainable, scalable + replicable
-

Questions + Follow-Ups

Kelly Roache

Senior Program Manager

Low-to-Moderate Income Inclusion

kelly@solstice.us



**Community Solar for Low- and
Moderate-Income (LMI) Consumers
Clean Energy States Alliance Webinar**

Thursday, June 1st, 2017

Alpine Bank's Community Solar Project Synopsis

- Clean Energy Collective (CEC) a community solar garden (CSG) developer was required for one of its projects to allocate 5% of a CSG's output to low-income customers. CEC had trouble signing up enough low-income customers.
- CEC and Alpine Bank came up with a plan to address this challenge. Alpine Bank was already planning to buy additional capacity/ panels for its own use, but agreed to also buy the 5% of the array that needed to be allocated to low-income customers, and to donate it to the Family & Intercultural Resource Center (FIRC), an agency that provides services for low-income residents.

Alpine Bank's Community Solar Project Synopsis (continued)

- FIRC allocates the net metering credits from the panels to low-income people on a rotating basis. There are enough panels to supply 100% of the electricity needs for 10 households, but FIRC actually distributes the credits to more households in smaller amounts.
- CEC gave Alpine Bank a volume discount. Combined with the charitable tax deduction that Alpine Bank received for donating the panels to FIRC, the volume discount meant that buying the extra panels and donating them to FIRC cost Alpine Bank virtually nothing. The project also helped Alpine Bank meet its requirements under the Community Reinvestment Act.

Alpine Bank's Community Solar Project Model Webinar Agenda

- **Organizer: Alpine Bank Green Team Initiative**
- **Project and Partners: Putting the “Community” in Community Solar--- Bringing Sunshine to Low-and Moderate-Income (LMI) Customers**
 - **Community Solar Garden (CSG) Developer, Clean Energy Collective (CEC)**
 - **Purchaser / Donor, Alpine Bank**
 - **Nonprofit Recipient of PV panel donation committed to serving LMI clients, Family & Intercultural Resource Center (FIRC)**
- **The Mechanics: Checklist to Replicate the Project**
- **Questions / Discussion (moderated by CESA)**

Alpine Bank's History of Excellence



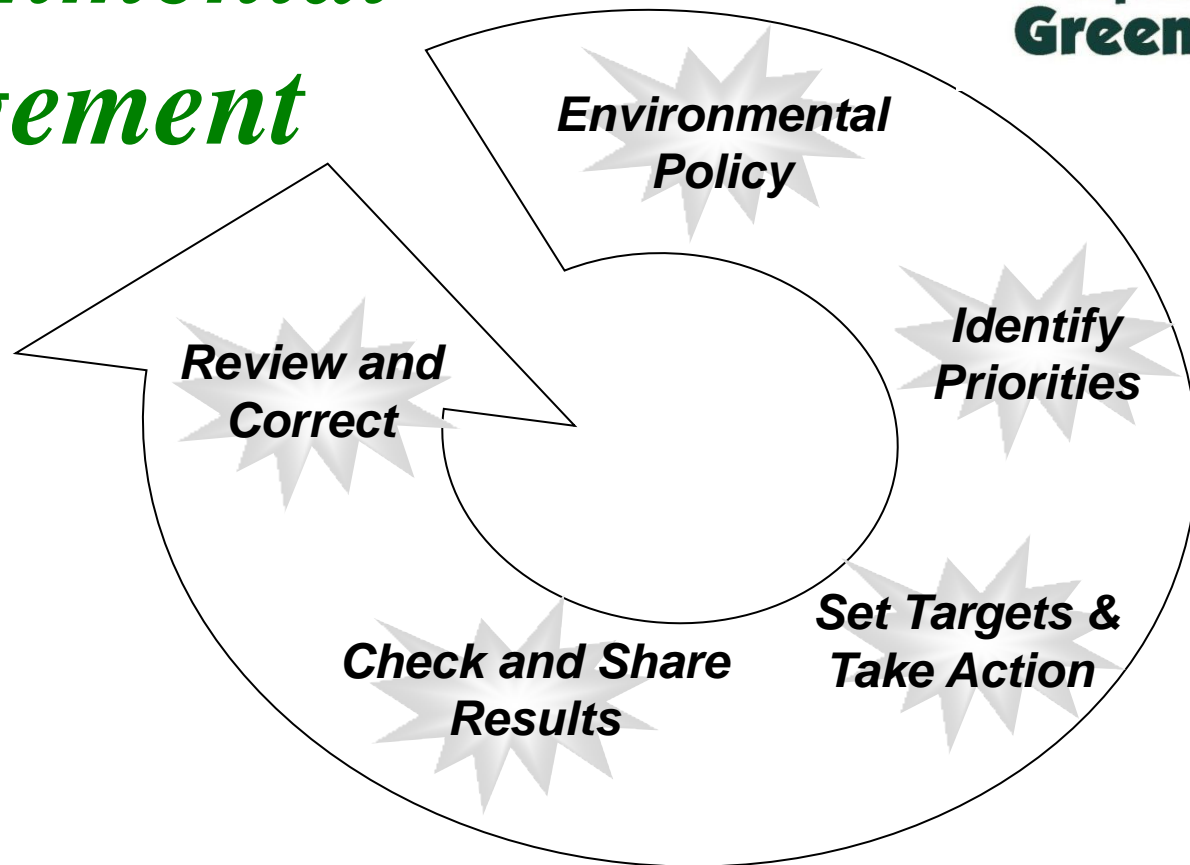
- \$3+ billion in assets
- Over 130,000 customers
- Community Bank serving Western Colorado since 1973
- 38 Colorado locations (2 in Denver since 2014, 2015)
- 600+ employee-owners
- Offers retail, business, wealth management, mortgage and electronic banking products and services
- 5-star rating for financial strength by BauerFinancial
- Combines “High Tech” with “High Touch”
- For more information, visit www.alpinebank.com

Alpine Bank's Green Team History



- Grass-roots initiative started in 2003
- Systematized in 2005
- Phase 1: Create a formal Environmental Management System and “Walk the Talk”
- Phase 2: Reach out to the community
- Phase 3: Offer financial incentives to “Do the Right Thing”

*Green Team:
Building an
Environmental
Management
System
(EMS)*



ISO 14001 Environmental Standard

What does Alpine Bank do to support its EMS Policies?

- **Identifies and Prioritizes Opportunities**
- **Develops Action Plans**
- **Green Team Solar Power Project List**
 - **Green Power Purchase (initiated 2008)**
 - **100% Green Electricity at all bank facilities**
 - **Member of the EPA Green Power Partnership since 2009**
 - **Community Solar Gardens (CSG) (initiated 2014)**
 - **Invested approximately \$900K in 1092 PV modules from five different arrays to power approximately 50% of annual electricity use of 22 bank facilities spanning 40K square miles in Western Colorado since 2014**
 - **Donated 80 PV CSG modules to FIRC (nonprofit) as an extension of the bank's CSG investment strategy**



Community Solar Garden (CSG) Developer, Clean Energy Collective



Alpine Bank Community Culture - Grid Alternatives Volunteering



Family Intercultural Resource Center (FIRC) - LMI Advocate



Mechanics: CEC

- **Xcel CSG tariff required 5% low income subscriber base for project approval**
- **Compliance with low-income requirement was extremely cumbersome for the developer**
- **CSG PV modules associated with the 5% low income set-aside became a de facto stranded asset for the developer**
- **Result was a willingness to sell the 5% low income PV set-aside modules at a discount to an appropriate qualified buyer**

Mechanics: Alpine Bank

- Committed to / experienced with CSG purchases**
- Long history of serving the community and making charitable contributions**
- Was in the market to purchase additional PV modules for its Summit County locations**
- Had a tax appetite as a profitable corporation**
- Was willing to consider a bulk purchase of additional modules for both its internal needs and charitable purposes at a reduced unit cost**
- Ran the numbers and determined that it could serve LMI Summit County community in concert with FIRC at little-to-no net incremental cost**

Mechanics: Family Intercultural Resources Center (FRIC)

- Established nonprofit that already was already serving the LMI community as core constituents**
- Considered the acquisition of monthly billing credits generated from ownership of the donated PV modules allotted to low-income households as a way to augment services already being provided**
- Was comfortable managing the administrative procedures required to select recipients, allocate the 25 kW output, and interface with the respective utility**
- Demonstrated excitement about the new opportunity**

Critical Factors for Replication Success using Alpine Bank's LMI CSG Model

- 1. Developer that is *selling* modules and is receptive to incentivizing a corporate buyer that is interested in supporting LMI CSG customers**
- 2. Commercial buyer with significant tax liability that can fully utilize tax credits, charitable tax deductions and accelerated depreciation write-offs with an interest in assisting LMI residents**
- 3. Receptive proven nonprofit organization that is already serving the LMI community and will use the monthly billing credits generated from ownership of the donated PV modules effectively**

Questions and Discussion

Thank You!



David Miller

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Green Team Chairperson**

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Visit our website to learn more about the Sustainable Solar Education Project
and to sign up for our e-newsletter:

www.cesa.org/projects/sustainable-solar

Find us online: www.cesa.org

facebook.com/cleanenergystates

@CESA_news on Twitter



Upcoming Webinars

- **Utility-Driven Solar Projects for Low-Income Customers**
Thursday, June 8, 1-2pm ET
- **Solar Risk: How Energy Storage Can Preserve Solar Savings in California Affordable Housing**
Thursday, June 15, 2-3pm ET
- **Consumer Protections for Community Solar**
Thursday, June 22, 1-2pm ET

www.cesa.org/webinars

