



Better Buildings Residential Network Program Sustainability Peer Exchange Call Series: *Update on Revenue Strategies*

Call Slides and Discussion Summary

December 11, 2014

Agenda

- Call Logistics and Introductions
- Residential Network and Peer Exchange Call Overview
- Featured Speakers
 - Lea Yancey, Boulder County, Colorado
 - Doug Coward, Solar and Energy Loan Fund (SELF)
 - Aaron Klemm, Los Angeles County, California
- Discussion
 - What revenue strategies have worked well for your organization?
 - What challenges have you encountered in seeking out revenue sources?
 - In what ways has your organization needed to adjust revenue strategies over time?
 - What questions do you have for other organizations about raising revenue?
- Future Call Topics Poll

Call Participants

- Aspen Community Office for Resource Efficiency (CORE)
- Boulder County
- Cadmus Group
- Civic Works
- Clean Energy Works
- Corvallis Environmental Center
- Efficiency Maine
- Elevate Energy
- Energy Efficiency Specialists
- EnergySmart Boulder
- Kaysinger Basin Regional Planning Commission
- Los Angeles County
- Solar and Energy Loan Fund
- City of Takoma Park
- WSU Energy Program

Better Buildings Residential Network

- **Better Buildings Residential Network**: Connects energy efficiency programs and partners to share best practices to increase the number of American homes that are energy efficient.
 - Membership: Open to organizations committed to accelerating the pace of existing residential upgrades. Commit to providing DOE with annual number of residential upgrades, and information about benefits associated with them.
 - Benefits:
 - Peer Exchange Calls
 - Tools, templates, & resources
 - Newsletter updates on trends
 - Recognition: Media, materials
 - Optional benchmarking
 - Residential Solution Center

For more information & to join, email bbresidentialnetwork@ee.doe.gov.

- **Better Buildings Residential Network Group on Home Energy Pros**

Join to access:

- Peer exchange call summaries and calendar
- Discussion threads with energy efficiency programs and partners
- Resources and documents for energy efficiency programs and partners

<http://homeenergypros.lbl.gov/group/better-buildings-residential-network>

Better Buildings Residential Network Group on Home Energy Pros Website



Better Buildings Residential Network

Created by Better Buildings Support

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Information



The Better Buildings Residential Network connects energy efficiency programs and partners to share best practices and learn from one another to increase the number of American homes that are energy efficient.

Website: <http://betterbuildings.energy.gov/bbm>

Latest Activity: 8 hours ago

Join the conversation in the discussion forum below. You can use the "Follow" link at the bottom of the forum to receive an email whenever a new discussion is posted.

Open the table of contents below and follow the links to access topical materials and resources.

Helpful Links

- Table of Contents
- Better Buildings Residential Network
- Better Buildings Neighborhood Program Website
- Home Performance with ENERGY STAR
- Home Energy Score



Table of Contents



+New Discussion



Peer Exchange Call Archive



Better Buildings Network View



Tools



Related Events

Discussion Forum



Attend Today's Peer Exchange Calls on Program Sustainability and on Workforce

Don't miss today's calls. "Collaborating with Utilities on Residential Energy Efficiency" begins at 12:30 p.m. Eastern and "Engaging Efficiency First Chapters and Other Trade Associations in Energy Efficiency Programs" begins at 3:00 p.m. Eastern.

[Continue](#)

Tags: Peer Exchange Calls

Started by Better Buildings Support 8 hours ago.



Register for Upcoming DOE Webinar About On-Bill Financing

Sign up to attend the DOE State and Local Energy Efficiency Action Network (SEE Action) webinar, "Case Studies: Financing Energy Improvements on Utility Bills," taking place June 11, 2014, from 2:00 to 3:30 p.m. Eastern. To learn more on this topic, read

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Home Energy Pros

Home Energy Pros was founded by the developers of Home Energy Saver Pro (sponsored by the U.S. Department of Energy,) and brought to you in partnership with Home Energy magazine.

Latest Activity

[What brings you here?](#)

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Tucker Henne commented on David Byrne's blog post Does Aereoseal work? An auditors review

"I would like to begin with a disclaimer that I am an Aereoseal contractor. One of the reasons I..."

16 minutes ago

T.J Alexander posted a blog post

So many homes have fiberglass insulation that is poorly installed in New Hampshire and elsewhere

Doing testing of existing homes it is typical to see mottled patterns of surface temperatures with...

See More

1 hour ago

CleanEdison updated an event



Entry Level Solar Photovoltaic at Cotuit, MA

September 30, 2012 to

Peer Exchange Call Series

- There are currently 6 Peer Exchange call series:
 - Data & Evaluation
 - Financing & Revenue
 - Marketing & Outreach
 - Multifamily/ Low-Income Housing
 - Program Sustainability
 - Workforce/ Business Partners
- Calls are held the 2nd and 4th Thursday of every month at 12:30 and 3:00 ET
- Upcoming calls: January/February 2015 calls to be announced soon!
- Send call topic ideas or requests to be added to additional call series distribution lists to peerexchange@rossstrategic.com.

Peer Exchange Call Summaries

Discussion: Challenges and Solutions

- Overcoming Challenges - Solutions:
 - Access trusted, local messengers
 - Engage your satisfied customers as champions to turn them into "lifetime customers"
 - Invite people to make a pledge with a few simple EE activities they can take
 - Connect with the right local partners (Connecticut conducted "community asset mapping")
 - Directly involve the homeowner through DIY work or as energy efficiency demonstration homes to help them feel engaged (San Diego demonstration homes)
 - Minimize paperwork to make it easier to participate

20



Poll Results

Participant Poll: Which of the following best describes your program's experience with energy efficiency behavior change efforts?

- Currently implementing: 31%
- Planning to implement: 31%
- Thinking about it: 19%
- Haven't thought about it: 0%
- Not applicable: 19%

7

The screenshot shows the 'HOME ENERGY PROS' website with the tagline 'Connecting home energy professionals'. The navigation menu includes Home, Invite, My Page, Members, Forum, Blogs, Groups, Photos, Videos, and Events. The main content area is titled 'Peer Exchange Archive: Program Sustainability' and lists several call summaries with their dates and PDF links:

- [Incorporating Behavior Change Efforts into Energy Efficiency Programs](#)
July 10, 2014
[Presentation and Discussion Summary \(PDF\)](#)
- [Collaborating with Utilities on Residential Energy Efficiency](#)
June 12, 2014
[Presentation and Discussion Summary \(PDF\)](#)
- [BBRN Voluntary Initiative: Partnering to Enhance Program Capacity](#)
May 8, 2014
[Presentation and Discussion Summary \(PDF\)](#)
- [Complementary Energy and Health Strategies](#)
April 10, 2014
[Presentation and Discussion Summary \(PDF\)](#)
- [Mastermind: Jim Mikel, Spirit Foundation](#)
March 13, 2014
[Presentation and Discussion Summary \(PDF\)](#)

How do you eat an elephant? One bite at a time. A slight shift in perspective goes a long way.

Understanding how EE can solve a financial, public relation, or customer service problem for the utility is the right place to start.

Residential Program Solution Center

Web portal of residential EE upgrade program resources, & lessons learned to plan better, avoid reinventing the wheel.

- BB Neighborhood Program, Home Performance with ENERGY STAR Sponsors+
- Provides:
 - Step-by-step guidance
 - Examples
 - Tools
 - Templates
 - Lessons learned
 - Best practices
 - Tips
- Continually add content to support residential EE upgrade programs—member ideas wanted!



<https://bbnp.pnnl.gov/>

**Lessons Learned: Boulder County,
Colorado**
Lea Yancey



Local Revenue Sources for Sustainability Services

December 11, 2014

Lea Yancey

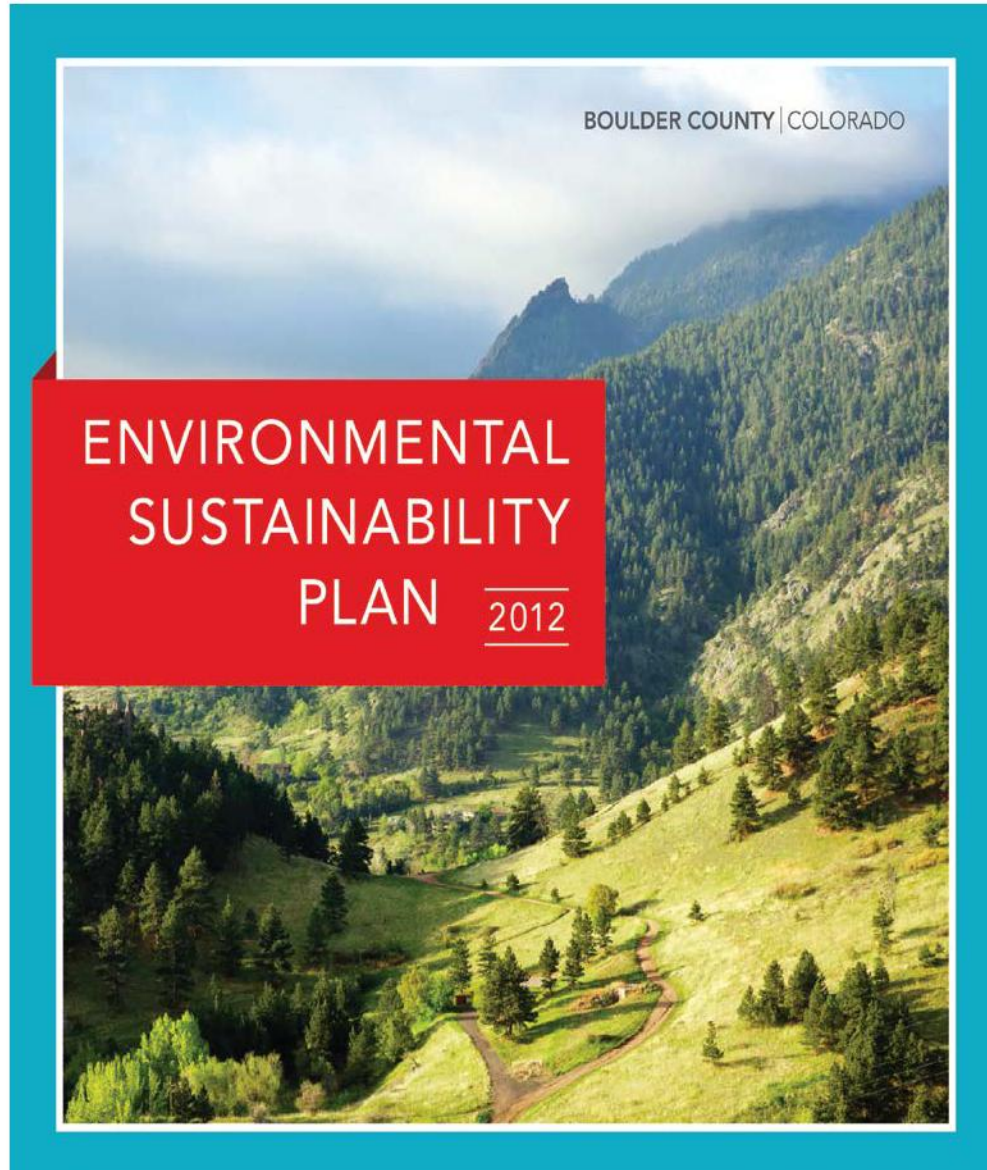
Boulder County Commissioners' Office



Topics for Today

- Boulder County commitment to sustainability
- Revenue
 - property tax funding & loan-loss reserve
 - partners' funding
 - attempts for voter-approved funding
 - NEW! Energy Impact Offset Fund

COMMITMENT TO SUSTAINABILITY



BOULDER COUNTY | COLORADO

ENVIRONMENTAL
SUSTAINABILITY
PLAN 2012

REVENUE – COUNTY & CITIES

Multiple cities & towns in Boulder County pursue GHG mitigation and funding:

Name	Locality	Revenue	Enacted?	Date
General Fund	Boulder County	\$1.6M (\$1.1M EnergySmart)	Yes	2014, 2015
Loan-Loss Reserve	Boulder County & Denver	\$7.1M	Yes	2012 onward
Climate Action Plan tax	City of Boulder	\$1.8M (\$950k EnergySmart)	Yes	2006, 2012 voter renewal
Sustainability tax	Boulder County	\$4.5M prop tax; \$5.7M sales tax	No	Attempted 2014 – never went to ballot
Lafayette Energy Excise tax	City of Lafayette	\$450k	No	Attempted 2014 – not voter approved
Energy Impact Offset Fund	Boulder County (unincorporated)	2.61 cents per kWh (2015)	Soon to be	January 2015

ENERGY INTENSIVE INDUSTRIES

- Energy Impact Offset Fund
- Establishing a model for high energy use sectors – starting with the indoor cultivation high energy use sector



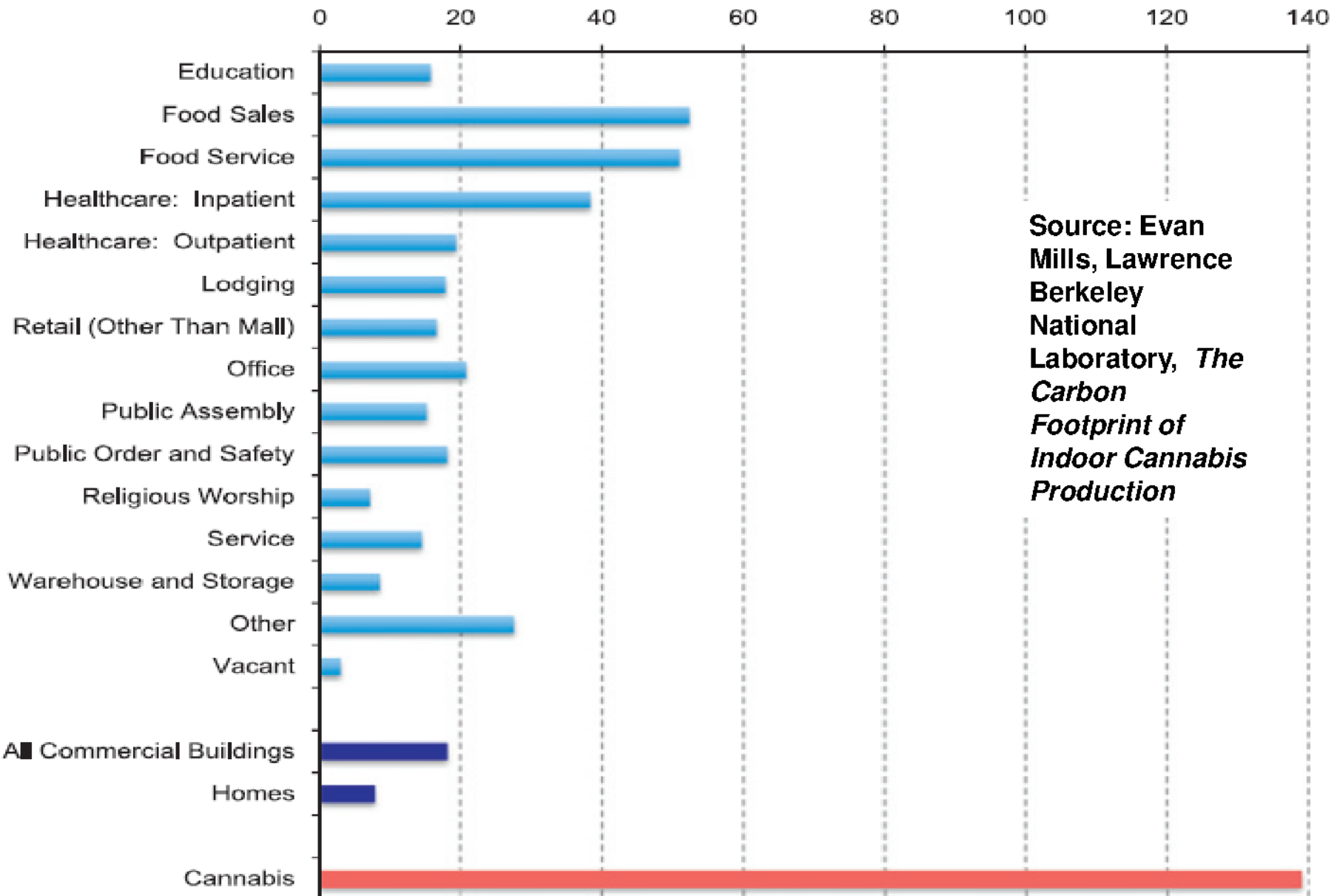
LAY OF THE LAND

- Serviced largely by Xcel Energy
- 15 licensed grow operations with many more in the pipeline
- 300 operations in Denver



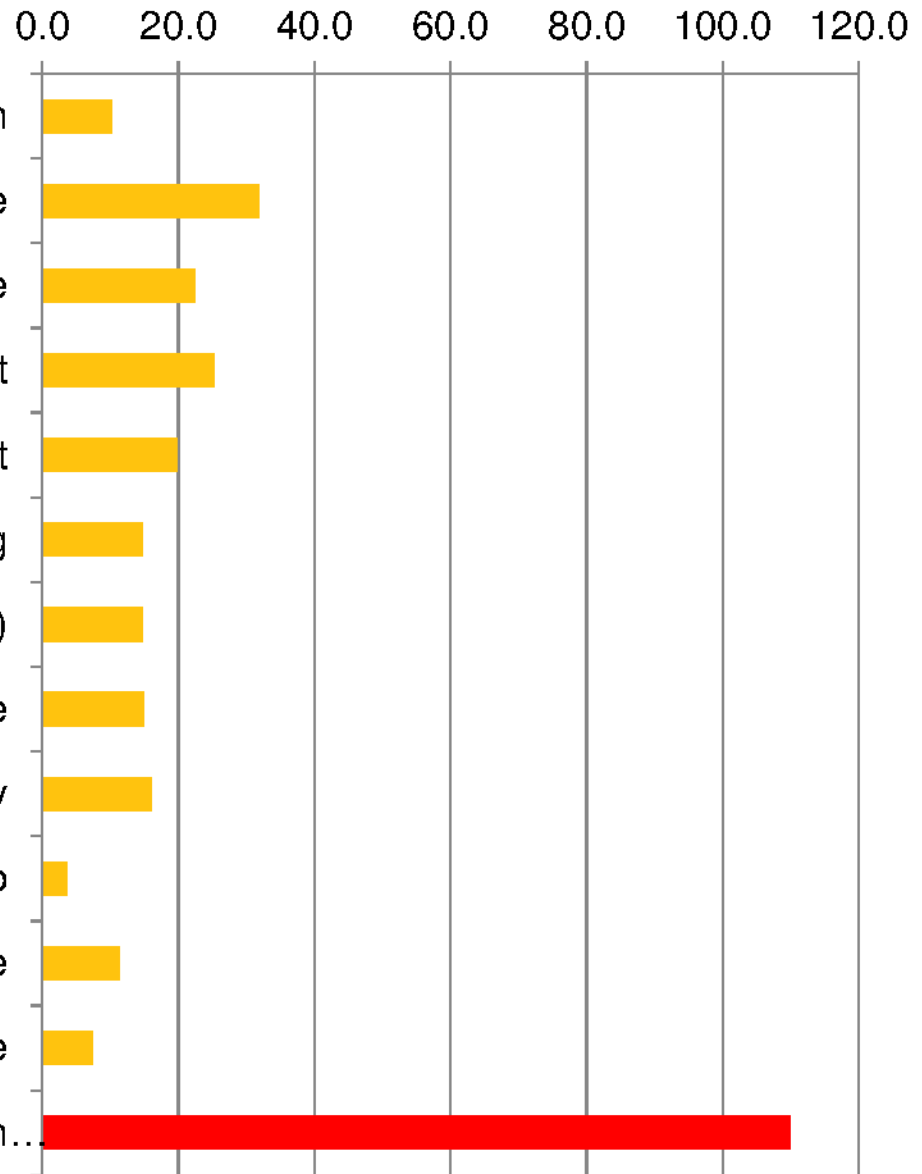
ENERGY USE OF INDOOR CULTIVATION

Primary energy (MJ/m²-year)



Source: Evan Mills, Lawrence Berkeley National Laboratory, *The Carbon Footprint of Indoor Cannabis Production*

Source: EIA & Local
Cultivator



kWh/Sqft/Year

Approximate Annual Energy Use Intensity (kWh/sqft/year)



THE OPTIONS

Option 1:

Renewable Energy
Offset

- Onsite Generation or Solar Garden
- **Problem**: Most growers lease buildings & not enough solar garden supply

Option 2:

Energy Impact Offset
Fund

- Billed based on actual energy consumption
- 2.16 ¢ per kWh
- Fee toward measures to offset carbon



EXAMPLE OFFSET FEE

5000 sqft facility, using 46,000kWh per month

1) Determine Monthly Baseline Consumption Value (BCV)

$$5000\text{sqft} \times 1.15 \text{ kWh/sqft} = \underline{5750 \text{ kWh}}$$

2) Subtract Baseline Consumption Value from actual consumption

$$46,000\text{kWh} - 5750 \text{ kWh} = \underline{40,250 \text{ kWh}}$$

3) Multiply energy to be offset by Social Cost of Carbon per kWh

$$40,250 \text{ kWh} \times 2.16\text{¢} = \text{\$869 fee/Month or \$10,428/year}$$



EXAMPLE

- Produces = 34 pounds dried flower/month
 - Sales = **\$261,120/month**
-
- Utility bill = \$4,000/month
 - Offset fee = \$869/month



ENERGY IMPACT OFFSET FUND

Use of funds will support measures that offset the carbon emissions:

- Support solar and/or energy efficiency measures
- Support new technologies and operational methods that will result in less energy intensive grow operations.
- Pay for energy monitoring and undertake energy advising to help reduce demand



CONCLUSIONS

- Leadership Support
- Fees for Large Energy Consumers
- Partnerships
- Innovative Models



Boulder County Revenue Programs

- Boulder County accessed several revenue sources reflecting the county's environmental sustainability mission and environmental values:
 - **City of Boulder Climate Action Plan Tax:** An energy excise tax, based on electricity use, used to mitigate the health and safety impacts of GHG emissions. Generates \$1.8M, \$950k goes to EnergySmart.
 - **Sustainability Tax:** Ultimately not considered for the ballot in 2014; would have generated revenue for EE measures from either a property tax or sales tax.
 - **Lafayette Energy Excise Tax:** A 2% tax in the City of Lafayette on utility bills to fund EE initiatives; \$25 per year impact to households. Did not pass in 2014.
 - **Energy Impact Offset Fund:** An offset requirement for cannabis growers to make the industry's energy use less carbon intensive. The requirement will take effect in January 2015. Growers will pay a 2.16-cent per kilowatt-hour fee. The fund will be used to support solar and energy efficiency initiatives, and is not limited to initiatives in the cannabis industry.
 - **Boulder County General Fund:** Property tax revenue, which generates \$1.6M, of which \$1.1M goes to EnergySmart.
- Leadership support at the county commissioner level and partnerships were essential and generated more innovative ideas for revenue strategies.

Lessons Learned from the Energy Impact Offset Fund

- The Energy Impact Offset Fund targeted cannabis growing operations for several reasons:
 - Growing operations use five times more energy than other sectors in the county.
 - Regulations for growing operations are still under development, creating a window to also implement an offset program.
- Combining education with the offset program reduced energy consumption by up to 40% from growers when they implemented simple interventions.
- The offset fund created a model that could be applied to other around-the-clock high-energy-use operations, such as medical facilities.

**Lessons Learned: Solar and Energy Loan
Fund (SELF)**
Doug Coward

Solar and Energy Loan Fund



December 11, 2014

Background:

- ❑ **Non-Profit 501 (c)(3) Florida corporation, overseen by 9-member Board of Directors.**
- ❑ **Community Development Financial Institution (CDFI) – non-profit community lending organization.**
- ❑ **Certified CDFI – as per U.S. Treasury Department**
- ❑ **Selected in 2009 by the U.S. Department of Energy as 1 of 20 local programs in America to receive funding (\$2.94 million) from the Energy Efficiency and Conservation Block Grant program (Option 2).**
- ❑ **Created in 2010. Operational in February of 2011.**
- ❑ **Created and now Administer St. Lucie County's new Property-Assessed Clean Energy (PACE) program.**

Types of Improvements:

SELF Finances Four (4) Types of Improvements:

- 1) Energy Efficiency (e.g. weatherization, insulation, high-efficiency air conditioners, LED lights);**
- 2) Renewable Energy (e.g., solar water heaters, solar electric panels, solar attic fans);**
- 3) Water Conservation (e.g., high-efficiency irrigation systems, cisterns); and**
- 4) Wind-Hazard Mitigation (e.g., roofs, windows, doors, hurricane shutters).**



SELF
SOLAR AND ENERGY LOAN FUND

1 RES

**Community
Development
Financial
Institution (CDFI)**

2 COM

**Property-Assessed
Clean Energy
(PACE)**

Revenue Streams:

- ❑ **CDFI Loans -**
 - ✓ **Project management (2.5%)**
 - ✓ **Processing fee (2.0%)**
 - ✓ **Spread on the loan (4%) – Interest-Earned on Portfolio**
- ❑ **PACE Assessments -**
 - ✓ **Origination Fee (2%)**
 - ✓ **Project Management (2%)**
 - ✓ **Marketing (0.5%)**
- ❑ **External Portfolios (i.e., origination fees for off balance sheet financing)**
- ❑ **Grants (Foundations, Banks, Government Programs)**
- ❑ **Local Governments**
 - ✓ **Cash (e.g., St. Lucie County & the City of Orlando)**
 - ✓ **Free Energy Audits (i.e., pipeline)**
 - ✓ **In-Kind (Marketing and Community Outreach)**
- ❑ **Consulting Contracts**
- ❑ **Adding New Product Types (e.g., Wind-Hazard Mitigation)**
- ❑ **Co-Marketing with contractors**
- ❑ **Expanded Service Territory (i.e., “Scaling”)**



Service Territory:

SELF's Residential Program is currently operational in Seven (7) counties, including: Palm Beach, Martin, St. Lucie, Indian River, Okeechobee, Orange, and Brevard Counties.



Results:



- ❑ **Completed 979 energy assessments and closed 312 loans totaling more than \$2.63 million.**
- ❑ **Completed first 3 PACE projects.**
- ❑ **Seventy percent (70%) of the loan activity has been in Low and Moderate Income (LMI) census tracts.**
- ❑ **Reduced average energy consumption by 23% per household, with cumulative savings of more than 1 million kWh.**
- ❑ **Homeowners are making much-needed home improvements;**
- ❑ **Homeowners are improving their quality of life with enhanced comfort and livability, particularly for the elderly, families with children, and persons with disabilities.**
- ❑ **Creating local jobs for hardest hit sector.**

Lessons Learned from SELF

- **Scaling and diversification of programs and revenue sources are critical to sustainability.** SELF needed a \$10 million portfolio to run a non-profit lending institution and implemented a diversification strategy to expand their portfolio.
 - SELF also raised over a million dollars from churches, and raised additional revenue for projects through crowdfunding.
 - \$45k out of every million in revenue is issued out in loans.
- **Form partnerships.**
 - SELF formed partnerships with lenders that offer long-term financing options for solar customers and generates an origination fee for bringing borrowers to these partner lenders.
 - SELF is expanding to new regions in Florida by partnering directly with local governments that provide funding for new staff and a new office location. Local governments also offer free energy audits that create a pipeline for lending activity.
- **Develop financing strategies that allow low-income people to access energy saving opportunities.** 70% of SELF's loan activity has occurred in the low-income sector.

Lessons Learned from SELF (Continued)

- **Partner with local contractors.**
 - Co-marketing opportunity. Partner contractors included SELF's loan program logo on mailers and other promotional materials when marketing their services.
 - Home energy efficiency contracting was one of the hardest hit job sectors in Florida as a result of the economic recession.
 - Because SELF provides a financing option that is less stringent than a bank, the partnership helps contractors secure a market they would not be able to access otherwise.
- **Calculate program impacts to garner support and funding.**
 - SELF puts extensive effort into calculating all of the triple bottom line impacts of its programs in order to share the organization's impacts and secure additional funding for programs.
 - Access to utility information allows SELF to benchmark every project with the energy usage prior to installation and compare to a follow-up 18 months later.
 - It is one thing to be able to achieve results, but another to calculate and share impacts to the outside world to garner support.

**Lessons Learned: Los Angeles County,
California**
Aaron Klemm

Lessons Learned from LA County

- LA County **buys down interest rates** to lower the cost of loans through a partnership with Matador Credit Union.
- Launched a **Cold Comfort Financing program** in 2013.
 - Allows for quick approval of financing for emergency HVAC replacements.
 - Better quality control in installations and the incorporation of more energy efficient HVAC equipment rather than the quickest option.
 - Provided 88 loans and has 43 contractors participating.
- The county is working on a **Residential PACE** program that will present revenue opportunities.
 - Funded by bonds.
 - Working with the public utilities commission to obtain flexibility from the strict rules and regulations of utilities with running the program. For example, contractors were dropping certifications with utilities because utilities would run out of incentives halfway through the year.

Discussion Questions

- What revenue strategies have worked well for your organization?
- What challenges have you encountered in seeking out revenue sources?
- In what ways has your organization needed to adjust revenue strategies over time?
- What questions do you have for other organizations about raising revenue?

Discussion Highlights

- **Diversify** revenue streams through tax policies, offset regulations, PACE programs, and loans.
- **Partner** with other entities, such as contractors, local governments, utilities, and other lenders.
- **Share** your program's impact to garner support from local leadership and funders.

Future Call Topics Poll

- Which of the following topics, if any, are of interest for future peer exchange calls?
 - Target marketing – understanding penetration rates—**33%**
 - Strategies for lowering the cost of assessments—**33%**
 - Incorporating EE ratings (i.e. HERS ratings) into underwriting standards—**33%**
 - Regional calls—**0%**
 - Issues with tightening up older homes—**0%**