



Evaluation of the Regional Energy Networks



Jeremy Battis

Regulatory Analyst, Energy Division

Public Presentation of Evaluation Results

December 3, 2015

Jeremy.Battis@cpuc.ca.gov



Presentation of Draft Results

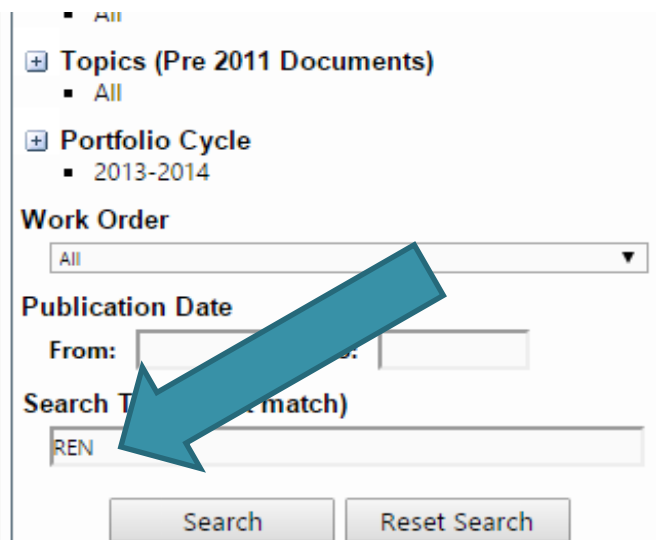
- Webinar today will cover the draft results of two recent Energy Division studies
- Morning session (10:00 – 11:30 AM)
 - Value and Effectiveness Study
 - Authored by Opinion Dynamics Corporation
- Afternoon session (1:00 – 3:00 PM)
 - Impact Assessment Study
 - Authored by Itron, Inc.





Public Review Requested

- **Reports can be accessed here:**
<http://www.energydataweb.com/cpuc/>
 - Search and select “2013-2014” portfolio cycle
 - Input “REN”, order by date, and go to bottom of search list





Public Review Requested

**Please
upload
comments to
the website
by clicking
“comment”
on the report
by 5pm on
December 11,
2015**

Regional Energy Networks (RENs) Value and Effectiveness Draft Report <i>Summary: Draft Report of the RENs Value and Effectiveness Study</i>	Pub. Date: 11/20/2015 View Comment Comment End Date 12/11/2015 My Documents: <input type="checkbox"/>
For more information please contact Rory Cox at Rory.cox@cpuc.ca.gov	
Draft Regional Energy Networks (RENs) Value and Effectiveness Report Appendices <i>Summary: Appendices of the Draft Regional Energy Networks (RENs) Value and Effectiveness Report</i>	Pub. Date: 11/20/2015 View Comment Comment End Date 12/11/2015 My Documents: <input type="checkbox"/>
For more information please contact Rory Cox at Rory.cox@cpuc.ca.gov	
Draft Regional Energy Networks (RENs) Value and Effectiveness Report Comment Template <i>Summary: Comment Template for the Draft Regional Energy Networks (RENs) Value and Effectiveness Report</i>	Pub. Date: 11/20/2015 View Comment Comment End Date 12/11/2015 My Documents: <input type="checkbox"/>
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PY2013-2014 REGIONAL ENERGY NETWORKS VALUE & EFFECTIVENESS STUDY

Draft Report
Public Webinar

12/3/15



Opinion **Dynamics**



Acknowledgements

- Study was made possible by contributions from various stakeholders:
 - CPUC Energy Division staff
 - BayREN and SoCalREN staff
 - Our survey respondents

Agenda

- Context of the Study
- Study Objectives and Approach
- Findings
- Conclusions and Recommendations
- Questions & Answers



Context of the Study

In 2012, the Commission authorized two Regional Energy Networks (RENs)

- The RENs are pilot entities composed of local governments that design and administer energy efficiency programs absent utility oversight, but with ratepayer funds.
- Combined, the two RENs have an operating budget of \$75 million for program years 2013-2014.
- Although the RENs are independent, the IOUs retain a role with regard to funding reimbursement and associated contract agreements.



Note: Also known as "SoCalREN"

The Commission wanted the RENs to address three areas

1. The RENs should undertake programs that the IOUs cannot or do not intend to do.
 2. The RENs should target hard-to-reach populations.
 3. The RENs should design programs that have the potential to be scaled to larger geographic areas.
-
- The Commission also directed the RENs to address the following:
 - Workforce Education & Training (WE&T)
 - Technology development
 - Water-Energy Nexus (W-E Nexus)



The Bay Area REN (BayREN) covers the nine San Francisco Bay Area counties, all within PG&E territory

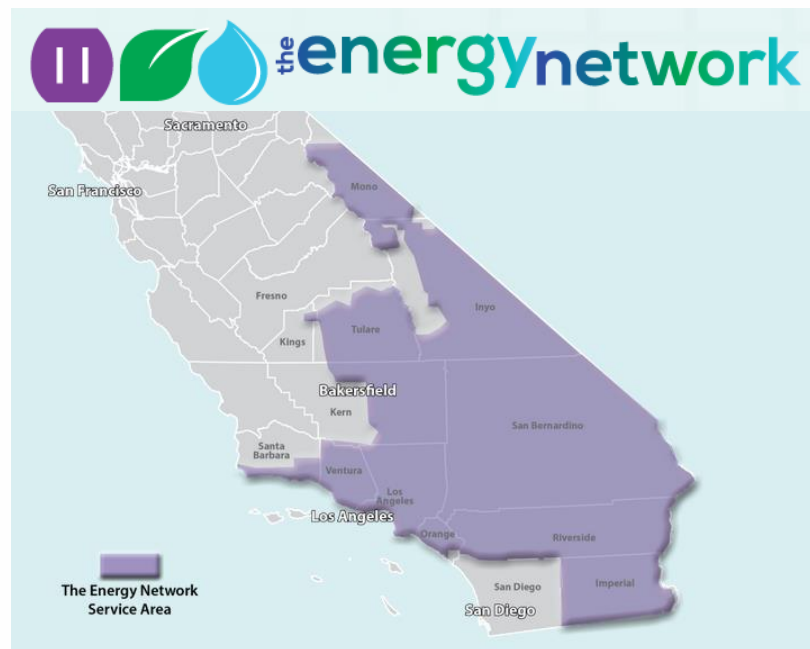
- BayREN is composed of a Coordinating Circle with ten voting members, including the nine member agencies and the Association of Bay Area Governments (ABAG).
- BayREN administers seven programs that focus on residential, commercial, and multifamily customers.



Source: www.bayren.org

The Southern California REN (SoCalREN) covers most of the territory of SCE and SoCalGas

- SoCalREN is composed of an Administrator (LA County), who receives input from an Advisory Council, consisting of 13 representatives from municipalities within SoCalREN territory.
- SoCalREN administers ten programs that target both public agencies and the residential sector.



Source: <http://theenergynetwork.com/>



Study Objectives & Approach

Study Research Questions

1. What overlap, if any, is occurring between the RENS programs and activities and IOU programs and activities?
2. What are the goals of the programs or activities undertaken by the RENS?
3. What is the history of the programs or activities?
4. How are the programs or activities being implemented?
5. How do the costs associated with the non-resource programs and activities compare to the overall RENS portfolio of programs?
6. What are the pros and cons of the two RENS' implementation models?
7. How do the RENS manage their programs?
8. Can or should the non-resource programs be scaled up or introduced to other areas of the state?
9. Would allowing more duplication of programs among RENS and IOUs create healthy competition or would it lead to added consumer confusion, redundancy, and waste?

What is “Value”?

- **Value when looking broadly across the RENS portfolio**
 - Their programs break new ground in areas not currently served by utilities or if their activities and programs have the potential to scale to a broader geographic area or serve hard-to-reach markets
 - Little to no overlap with the IOU programs and the RENS and IOUs coordinate on programs
 - Promote WE&T, technology development, and the water-energy nexus

- **Value when looking more narrowly at program customers**
 - Program participants provide positive responses when queried about the program in which they participate

What is “Effectiveness”?

- **Effectiveness when looking broadly across the REN portfolio**
 - The RENs have sufficiently addressed management issues as they arise (or there is a definite plan to mitigate them going forward)
 - They clearly demonstrate an ability to manage program implementation and adjust to necessary changes as they arise
- **Effectiveness looking more narrowly at program customers**
 - Program participants consider the offerings of reasonable benefit

Study Activities

To answer these questions, we:

1. Reviewed regulatory decisions, background materials and data
2. Interviewed 21 REN staff (14 BayREN; seven SoCalREN)
3. Interviewed 10 IOU staff to discuss coordination and overlap with the RENs
4. Surveyed all 53 public agencies that participated in SoCalREN's Public Agency Program with 28 completed surveys (56% response rate)
5. Surveyed all 238 residents who participated in BayREN's Home Upgrade Advisor program with 77 completed surveys (32% response rate)
6. Interviewed all water agency staff that received PAYS program development/enhancement assistance from BayREN (three)

Study Limitations

- Due to budget constraints and in-progress companion studies, this study was limited primarily to the following:
 - Description (but not verification) of the RENs' progress through 2014
 - Examination of three non-resource programs: the SoCalREN Public Agency Program and the BayREN Home Upgrade Advisor and Pay-as-You-Save (PAYS) programs
 - Description and preliminary comparison of the RENs' organizational structure and program models
- Other studies planned
 - The CPUC ED is performing a process study of the BayREN Codes & Standards Compliance Improvement program, expected to be completed late in 2015.
 - The CPUC ED is performing a study of the Multifamily program, expected to be completed in the first quarter of 2016.
 - An energy impact evaluation of the RENs, out in draft form, covers the 2013–2014 program years and part of 2015.
 - The CPUC ED is planning a second phase of this RENs value and effectiveness study, to be completed in 2016.



Findings: The Value of the RENs

While their customers overlap, the services offered by the RENs and IOUs are distinct

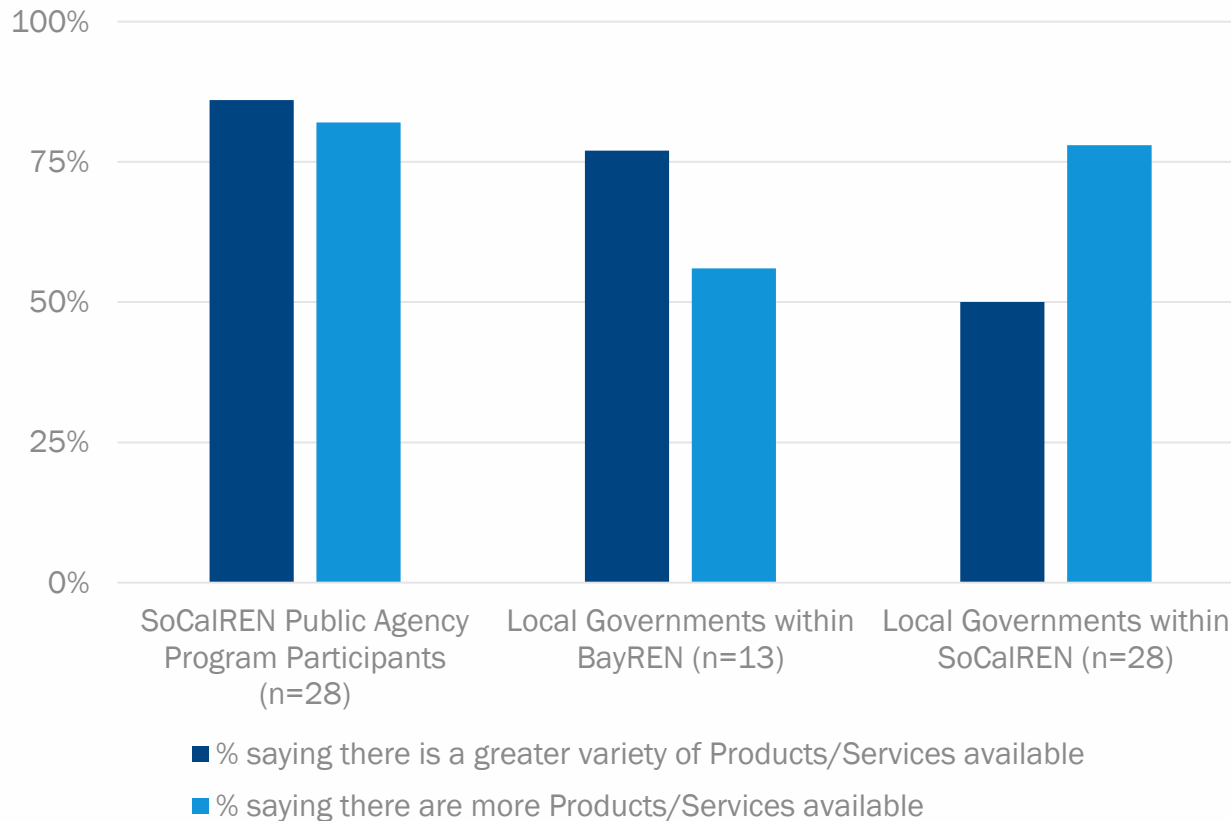
The RENs should undertake programs that the IOUs cannot or do not intend to do

- The customers fully overlap with IOU programs for Home Upgrade and Public Agency Program programs, but the RENs provide deeper level of engagement
 - Home Upgrade Advisor
 - Turn-key project delivery for local governments
 - The Public Agency Program provides assistance throughout the entire energy efficiency project development process while the IOUs may address one part of the process
- The RENs' multifamily offerings similarly overlap, but offer slightly different measures and program requirements

Compared to before the RENs began in September 2013, local governments state they have a wider array of EE services and products

The RENs should undertake programs that the IOUs cannot or do not intend to do

Change in the Number and Variety of EE Services and Products since RENs Began



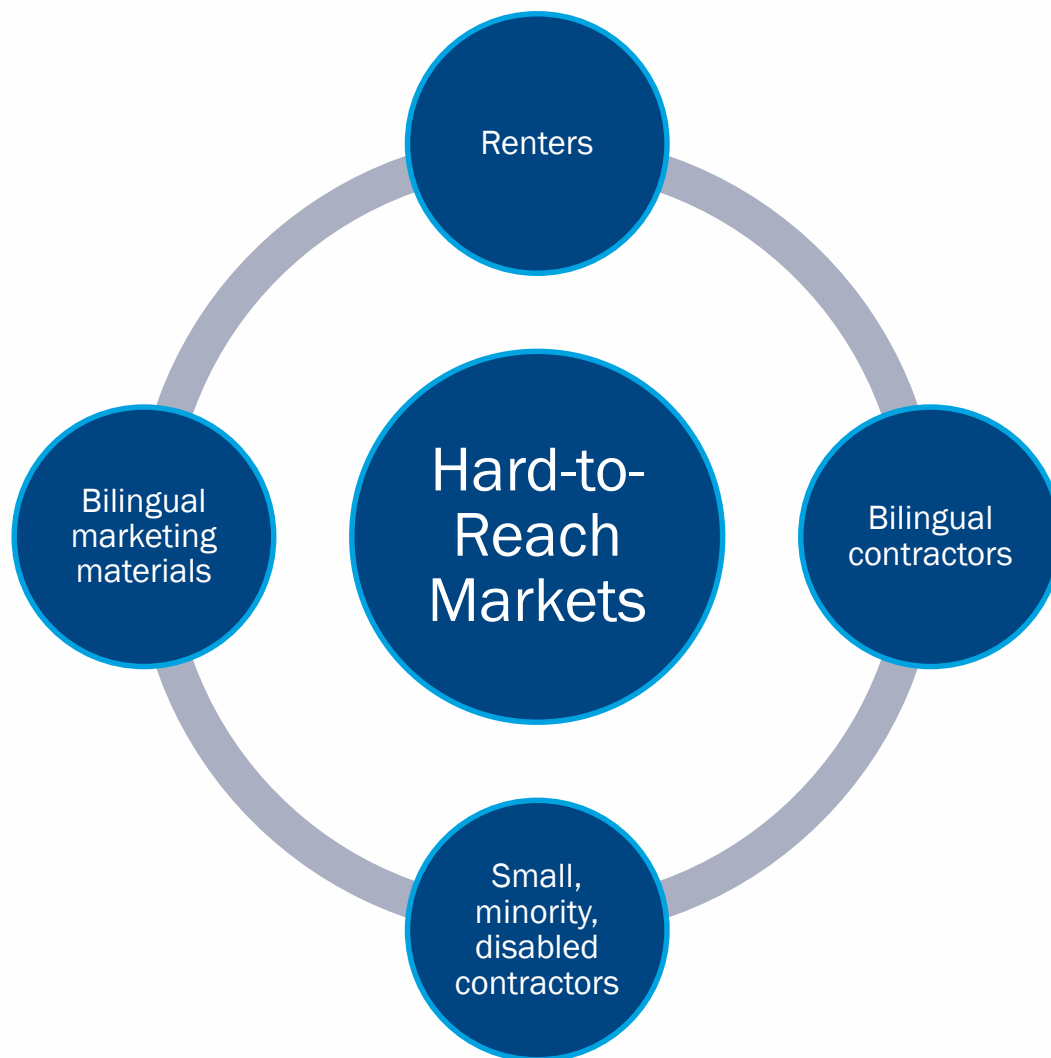
The RENs introduced two new program offerings with the potential to scale to broader geographic areas

Activities where there is no utility program offering
and where there is potential for scalability

- BayREN
 - Pay As You Save® (PAYS) program development/enhancement support
 - A Water-Energy Nexus program
 - The direct energy savings potential for PAYS is low due to the low-level savings from the energy efficiency measures. However, the embedded energy savings from installation of all water devices may go well beyond the direct energy savings.
- SoCalREN
 - Projects in the Technology Development component of the Regional Energy Center (part of SoCalREN) show promise for indirect savings, although their full potential will come only from extensive use.
 - Regional Energy Project Tracking and Permitting System (called CEEPMS)
 - Enterprise Energy Management Information System (EEMIS)

The RENs are doing their part to support hard-to-reach areas

Activities in hard-to-reach markets, whether or not there is a current utility program may overlap



The RENs are providing value according to their customers

Water
agencies
(PAYS)



“Without their help, it wouldn’t be happening at all.”

“Individuals have been great, committed, nice having a team that understands my challenges, my aspirations.”

Homeowners
(Home Upgrade
Advisor)



Working with the Home Advisor made a difference for nearly two-thirds (64%) of the homeowners

12% would not have done a home upgrade otherwise

Local
Governments
(Public Agency
Program)



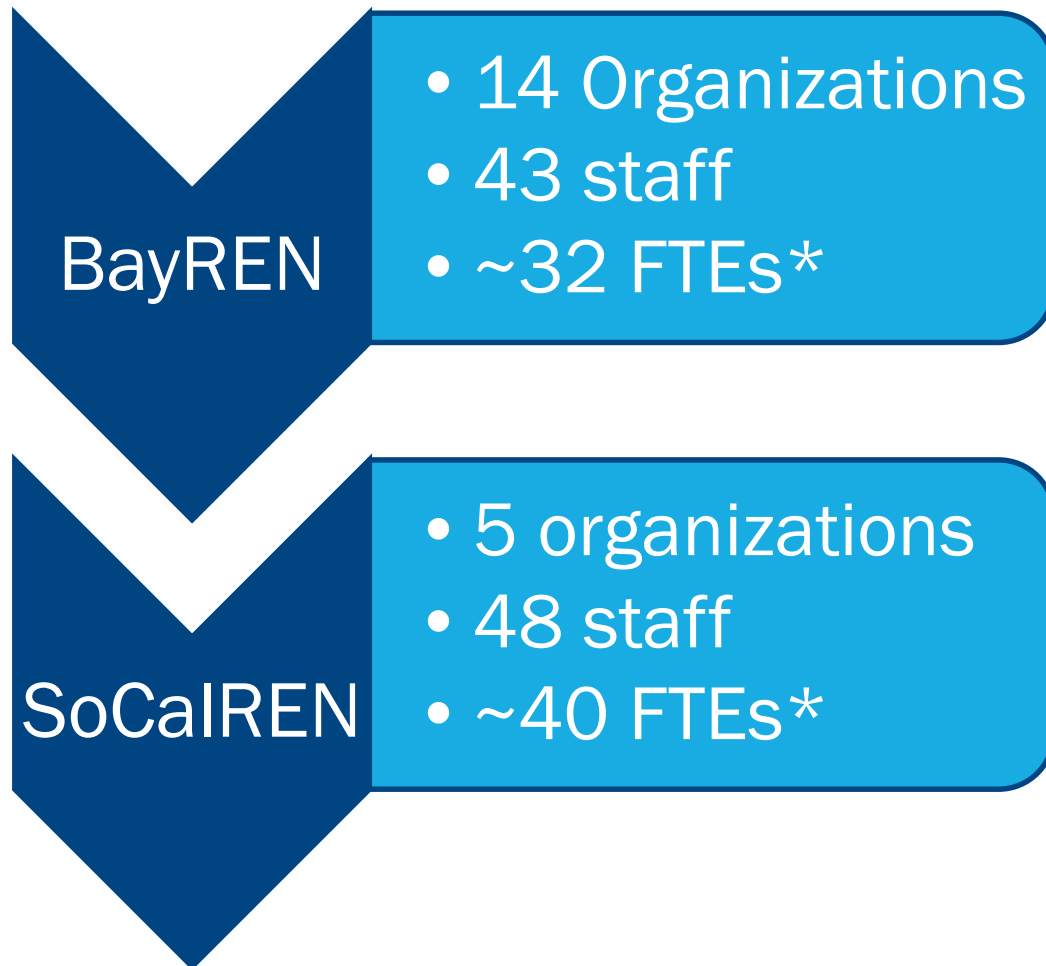
71% said that REN staff always met their needs

Participants report the RENs built the capacity of staff to improve EE within municipal buildings and deliver EE to communities

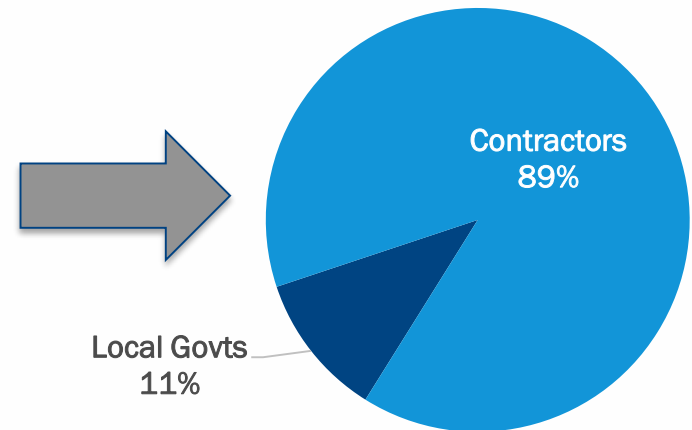
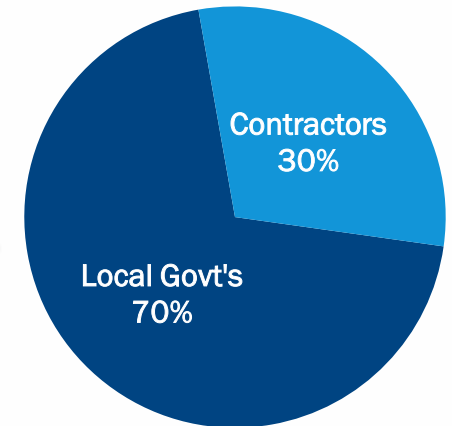


Findings: The Effectiveness of the RENs

The RENs have sufficient and experienced staff resources to conduct REN activities



Percent of FTEs



*Full Time Equivalent: 1 FTE=40 hours per week

The RENs have navigated the regulatory environment, mitigated administrative challenges, and coordinated with the IOUs

- Navigation
 - Adjusted activities and budgets in response to extended decision making period
 - Energy Division staff indicated that REN filings meet requirements
 - ABAG/BayREN hired a regulatory assistant
 - A high level of responsiveness to data requests to facilitate the evaluation
- Mitigation
 - BayREN developed a model and decision-making processes that met the needs of all Bay Area members
 - SoCalREN overcame contractor barriers to Single Family Home Upgrade participation
 - Both RENs significantly retooled their Single Family/Home Upgrade program designs to encourage more participation
- Coordination
 - Monthly meetings

Customers are highly satisfied with all aspects of REN services

Public Agency Program: 9.1 to 9.3

Home Upgrade Advisor: 8.9 to 9.6

Public Agency Program: 9.2 to 9.6

Home Upgrade Advisor: 7.1 to 9.4

Average Satisfaction Scores

Program
Services

Staff
Knowledge

Staff
Communication

Helpfulness
Mitigating
Challenges

**CUSTOMER
SATISFACTION**

Scale of 0 to 10, where
10 is “very satisfied”

Public Agency Program: 9.2

Home Upgrade Advisor: 9.3

Public Agency Program: 9.5

Home Upgrade Advisor: 8.8

There is some customer confusion in the BayREN Home Upgrade program, but it did not affect customer satisfaction

- BayREN and PG&E provide different aspects of the Home Upgrade programs.
 - BayREN pays incentives on the Home Upgrade component, provides a Home Advisor, and refers customers to other programs
 - PG&E pays incentives on the Advanced Home Upgrade component
- Most customers understood the roles of BayREN and PG&E (64%)
- Half of the participants experienced some level of confusion
 - 44% were “not at all confused”
 - 44% were “somewhat confused”
 - 6% were “very confused”



Conclusions

Conclusions on Value and Effectiveness

The RENs are Valuable

- Provide additional, beneficial technical expertise
- Provide new programs with potential for scaling
- Promote the Water-Energy Nexus
- Promote new technology development
- Customers in three specific programs support the value

The RENs are Effective

- Implemented a \$75m portfolio in 18 months
- Navigated the new regulatory environment
- Overcame administrative and program design hurdles
- Delivered services that led to:
 - High levels of customer satisfaction
 - Some customer confusion, but not sufficient to affect satisfaction

Policy Guidance

Scalability of the RENs

- The management structure of the RENs allows for scaling up existing programs, but new programs may have more difficulty finding staffing resources
- There is potential for new RENs, but there are several cost and time considerations for new REN administrators and the IOUs

Customer Confusion from Duplication/Competition between REN and IOU programs

- Customer confusion exists, but the full level of confusion is unknown
- Competition between RENs and IOUs is not necessary to pursue innovation

Recommendations

The RENs should continue

- They should continue owing to the value that they demonstrate to their constituencies in several important areas: technical expertise, targeting hard-to-reach markets, and linkages with other utility offerings

The RENs should maintain their new programs and document customer response

- Specifically PAYS and SoCalREN software packages (EEMIS & CEEPMS)
- Tracking uptake will help determine whether programs are appealing to customers or require design changes

The RENs and IOUs should ensure tracking of key pilot metrics in order to compare activities across program administrators

- Especially important for REN programs such as Home Upgrade that seek to channel customers into IOU programs

The ED should conduct future studies to further understand value and effectiveness of the RENs

- Impact of RENs non-resource activities on both REN and IOU resource programs
- Long-term effectiveness and viability of the REN program administrator models

Provide Comments on the Report by 5 PM, December 11, 2015

- Report can be accessed here: <http://www.energydataweb.com/cpuc/>
To search, select “2013-2014” portfolio cycle, and search “REN”.
- There are two volumes:
 - Volume I contains an executive summary, background of the study, findings, and recommendations
 - Volume II contains a suite of appendices that document summary of results by report areas, data collection instruments, and frequencies where applicable
- Comments should be uploaded to the website by clicking “comment” on the report by 5pm on December 11, 2015

The screenshot displays the Energy Data Web interface. On the left, the 'Public Document Area' is visible, featuring a 'Welcome!' message and a link to download the 2013-2014 Energy Efficiency EM&V Plan. A blue arrow points from the 'Search' link in the top navigation bar to the search input field on the right. On the right, the search filters are set to 'All' for Topics (Pre 2011 Documents) and '2013-2014' for Portfolio Cycle. The 'Work Order' dropdown is set to 'All'. The 'Publication Date' range is empty. The 'Search Term (match)' field contains the text 'REN'. A blue arrow points from the search input field to the 'Search' button. Below the search field are 'Search' and 'Reset Search' buttons.

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California Public Utilities Commission

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Public Document Area Welcome !

Welcome to the Energy Division's Public Document Area – the "one-stop shop" for stakeholders to Measurement, and Verification (EM&V) work. The links below contain critical, over-arching information documents, and more. Please bookmark this page and refer to it frequently. Users of this site can also find projects, as well as proposals of IOU EM&V studies approved by the Energy Division. To search for c

To download the 2013-2014 Energy Efficiency EM&V Plan please click here.

- All
- Topics (Pre 2011 Documents)
 - All
- Portfolio Cycle
 - 2013-2014

Work Order
All

Publication Date
From: To:

Search Term (match)
REN

Search Reset Search

Thank you!

Mary Sutter

Executive Vice President

Opinion Dynamics

msutter@opiniondynamics.com

Alan Elliott

Senior Analyst

Opinion Dynamics

aelliott@opiniondynamics.com

Jeremy Battis

Local Government Programs and Regional Initiatives Statewide Lead Analyst

CPUC

jeremy.battis@cpuc.ca.gov





Webinar will continue...

- **Afternoon session of the webinar covering the Regional Energy Networks Impact Assessment will begin at 1:00 PM**
- **Same call-in number and Skype location**
- **Toll-free number: +1 (866) 467-0390**
- **Conference ID: 858 724 2628#**

