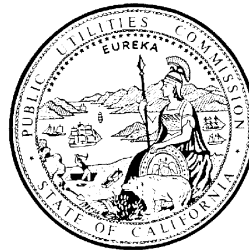


# FINANCE PROGRAM EVALUATION FOR THE CPUC



February 27, 2014

Conducted under the auspices of the California Public Utilities Commission

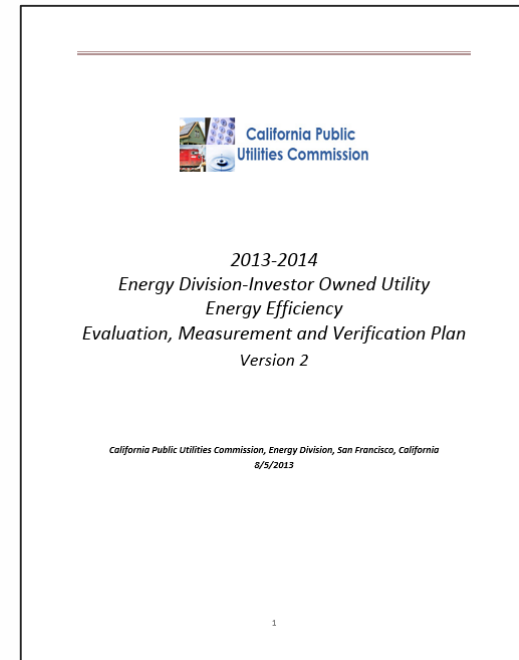


# Finance Roadmap Update

Dan Buch

# What is a Roadmap?

- CPUC EM&V Plan includes Long Term Research Roadmaps for the 2013-2014 cycle. These roadmaps are a result of the above collaborative process to:
  - Assess which studies are completed and/or in-progress
  - Avoid duplication and strive to leverage resources to address prioritized information gaps and study needs for 2013-2014
  - Set priorities for 2013-2014 study agenda given limited budget and resources by:
    - Conducting multiple rounds of prioritization of project content as well as budget re-sizing by the Project Coordination Groups (PGCs).
    - Consolidating, adding, and deleting projects as a result of key stakeholder review and comments received by the PCG
- The CPUC EM&V Plan is available online:  
<http://www.energydataweb.com/cpuc/#>



# Budget Summary for Finance Programs

IOU	Program Name	Budget
SCE	SCE-13-SW-007A On-Bill Financing	\$65,506,000
SCE	SCE-13-SW-007B ARRA- Originated Financing	\$13,300,000
SCE	SCE-13-SW-007C New Finance Pilots	\$9,237,000
PG&E	PGE21091 On-Bill Financing	\$38,000,000
PG&E	PGE21092 Third-Party Financing	\$4,000,000
PG&E	PGE21093 New Financing Pilots	\$31,000,000
SDG&E	SDGE3262 On-Bill Financing	\$697,435
SDG&E	SDGE3263 ARRA-Originated Financing	\$2,225,224
SDG&E	SDGE3264 New Finance Pilots	\$12,077,309
SCG	SCG3735 On-Bill Financing	\$1,727,378
SCG	SCG3736 ARRA-Originated Financing	\$4,320,000
SCG	SCG3737 New Finance Pilots	\$10,267,622
	Total Statewide Financing	\$190,237,969
	% of Statewide Portfolio	9.65%

# Context of Finance Roadmap

As described in Version 2 (August, 2013) of the 2013-2014 Energy Division-Investor Owned Utility, Energy Efficiency Evaluation, Measurement and Verification Plan. Of the \$55M dedicated to EM&V \$4.8 million will go to finance programs, which is approximately 9% of the total budget.

Sector and Program Area Research Plans	Study Manager	Study Type (Impact, Process, Market)			Total
		Impact	Market	Process	
Finance		\$1,500,000	\$900,000	\$2,349,911	\$4,799,911
	<i>ED</i>	\$1,500,000	\$900,000		\$2,400,000
	<i>IOU</i>			\$2,349,911	\$2,349,911

# The IOU-led Studies

Andy Fessel

# Financing Pilots EM&V - IOU

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- Early EM&V: Cadmus (\$507k) & Nexant (\$175k)
  - Participant & Financial Partner Interviews; Logic Models
  - Evaluation methods for incremental savings
- Process Evaluations – funds are budgeted for evaluations in each of the customer segment areas: single family; multifamily; small business; medium & large business; special project (1) and OBF – (\$1.7 M)
  - will be designed to address the program designs (PIPs are not yet approved)
  - Efforts will include the IOU EM&V and Program Managers by customer sector
  - Definition of a Master Contract holder to manage multiple projects – but drive sharing of information and learning

# The CPUC-led Studies

Philippe Dunsky

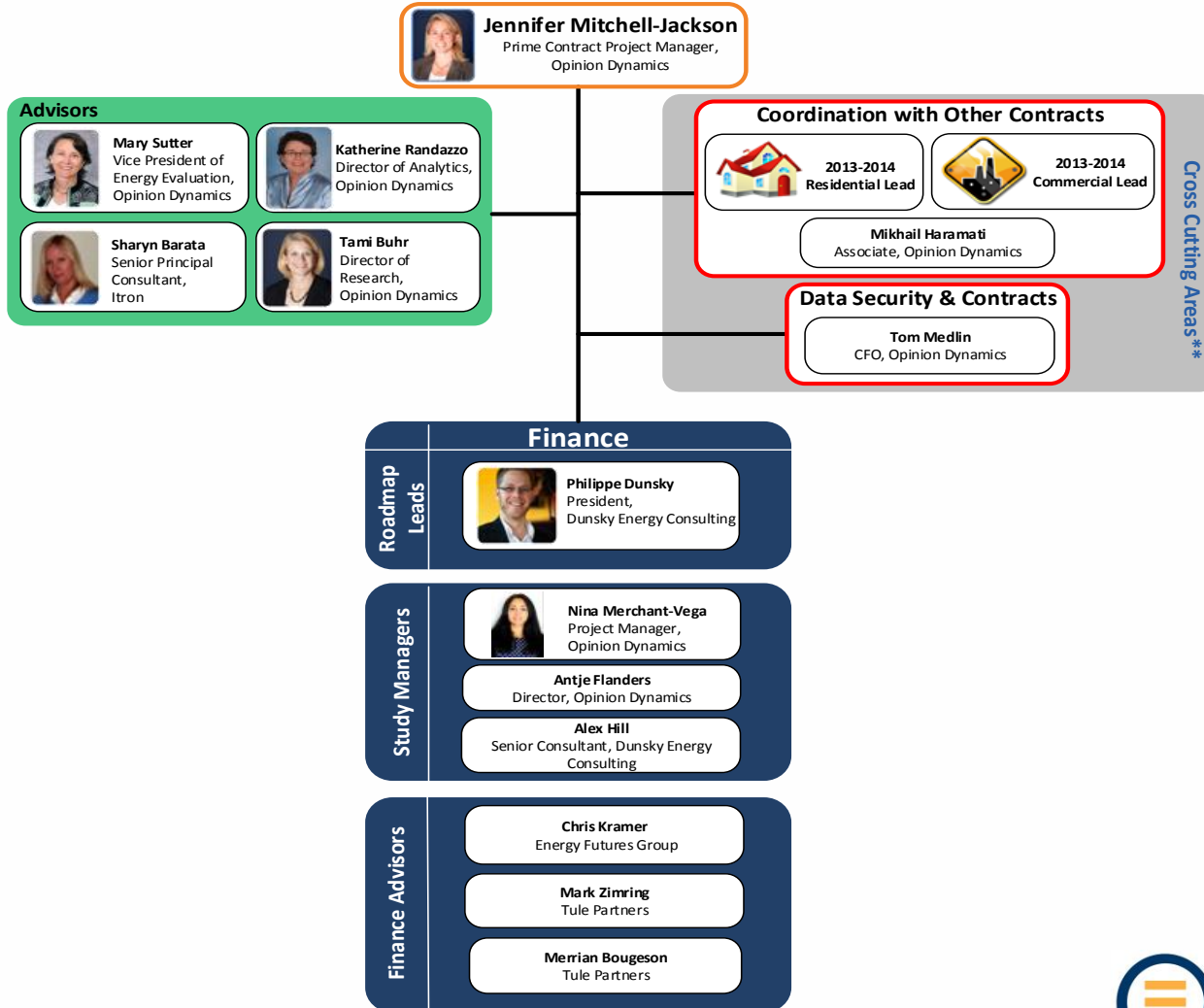
Nina Merchant-Vega

Jennifer Mitchell-Jackson





# CPUC-led Project Team



# Overview of Financing Efforts – Portfolio

Our studies need to consider the broad range of financing efforts:

- By implementation bucket

- Statewide\* Pilots (7)
- On-Bill Finance Program (OBF)
- Local Programs (15)

- By sector

- Residential
  - Single Family
  - Multi Family
- Non-Residential
  - Small Com
  - Med/Large

- By offering

- OBR
- OBF
- CE
- Promotional (some Local)

Statewide Pilots (7)	On-Bill Repayment	Credit Enhanced
<b>Residential Statewide Pilots</b>		
Single Family Loan Program (SFLP):		✓
Energy Finance Line-Item Charge (EFLIC) (PG&E Only)	✓	✓
Master-Metered Multi-Family (MMMMF – 25 buildings)	✓	✓
<b>Non-Residential Statewide Pilots</b>		
Small Business Loan Program	✓	✓
Lease Providers On-Bill	✓	✓
Lease Providers Off-Bill		✓
Business Loans	✓	

# Evaluation Priorities

- Given the scope and timing of the portfolio, it is necessary to prioritize

Objectives/Key Research Questions	Statewide Pilots	Local Programs	OBF
How has the program impacted the supply of financing available for energy efficiency improvements?	●	●	●
How has the program affected the demand for energy efficiency?	●	●	●
What are the incremental energy savings due to the program?	○	◐	●
What is the cost effectiveness of the program?	○	◐	●

● Strong Focus

◐ Need to Prioritize Programs with this Portfolio

○ Dependent on Timing



# Evaluation Studies

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- Research Studies

1. Cross-Cutting and Attribution Research: beginning Q1 2014
2. Baseline Research – Market Wide: beginning Q2 2014
3. OBF Multi-Phase Study beginning in Q2 2014
4. Annual Financing Snapshot and Verification Study: Q4 2014
5. End-of-Cycle Impacts: beginning in Q4 2015

# 1. Cross-Cutting and Attribution Research (starting Q1 2014)

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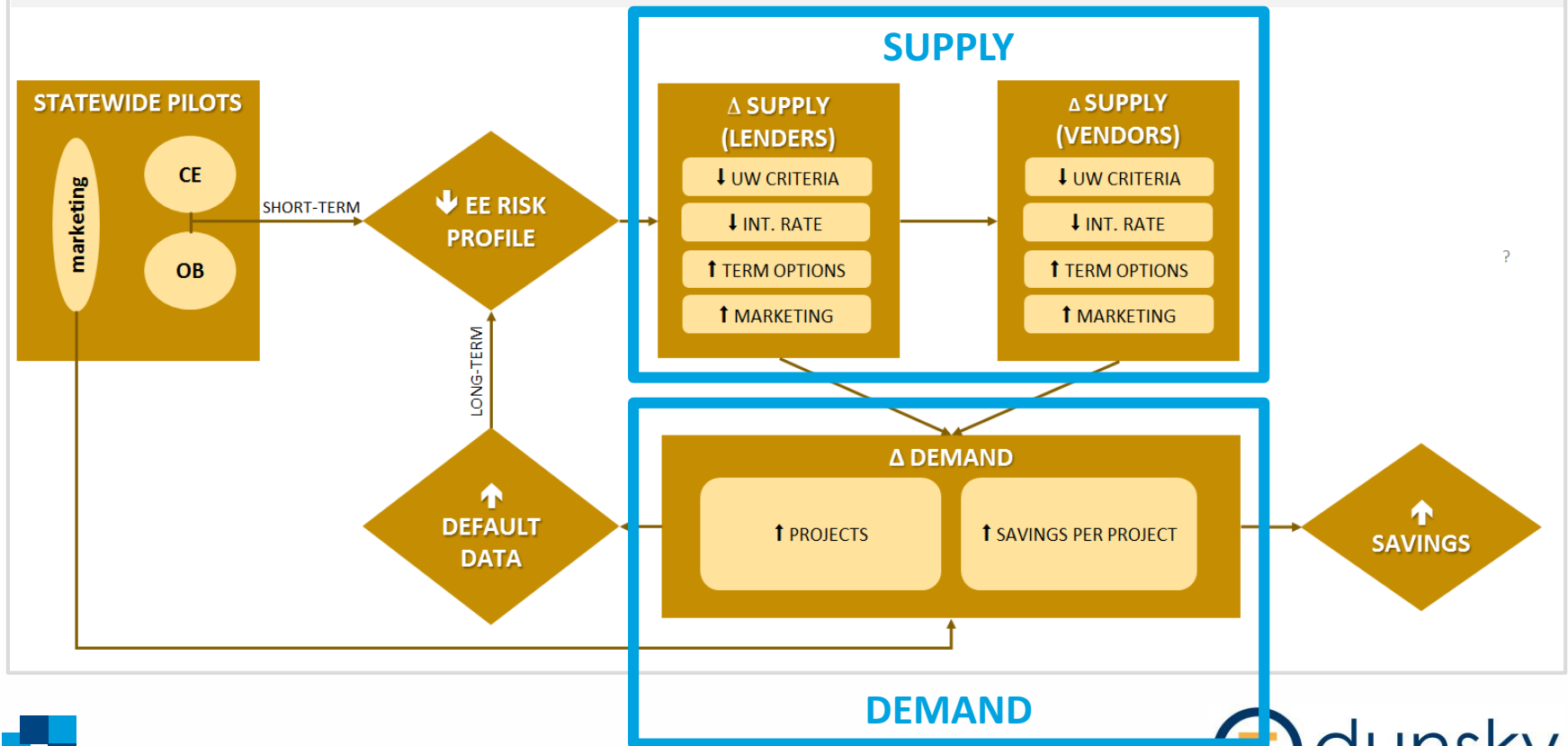
To Support Development of Plan and First Phases of Research:

- Stakeholder and Program Manager interviews (including CPUC, Pilots, PMs, RENs, Market Experts in and outside of CA)\*
  - Logic Model Reviews\*
  - Statewide Pilots & Local Program: Data/Program Review\*
  - Local Programs Prioritization Memo\*
  - Finance Cost-effectiveness Workshops and Whitepaper\*
  - Attribution Workshop and Memo\*
  - Evaluation Research Plan\*
  - Consulting and Coordination Activities
- \*Activities with an \* would result in a memo or other deliverable to the CPUC.

## 2. Baseline Research: Simplified View of What We Will Measure

### STATEWIDE PILOTS: SIMPLIFIED LOGIC

SIMPLIFIED VIEW TO FACILITATE DESIGN OF EVALUATION APPROACH



## 2. Baseline Research: Supply (starting Q2 2014)

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- **Data Collection Efforts** (*will cover residential and non-residential*)
  - Review of secondary data
  - In-depth interviews with financial institutions
  - Mystery borrower interview with financial institutions
  - In-depth interviews with contractors/vendors/distributors
- **Potential Analytics**
  - Map of currently-available incentives and local EE finance programs (eg. PACE)
  - Snapshot of the state of the energy efficiency finance industry at this time
    - Products offered, trends and success factors, lender/vendor understanding
    - By segment (listing EEM/\$/channel)
  - Longitudinal look at offerings from the supply-side mystery borrower interviews with financial institutions/vendors
  - Energy Efficiency Finance Market Index



## 2. Baseline Research: Demand (starting Q2 2014)

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### ■ Data collection efforts

- Residential and non-residential statewide general population surveys
  - Screen for use of financing, and more in-depth with those who used financing
- Digging into data from RASS, CLASS and Market Share Tracking Surveys to build documentation of market pre and post
- Coordination and leveraging of market level studies for 2013-2014+
- Adding questions to residential and non-residential participant surveys being conducted by other firms and the IOUs.

### ■ Potential Analytics

- Snapshot of percentage of customers using finance for EEMs, types of measures installed
- Segmentation of the markets to understand and track those in need of finance/ at cusp
- Understanding of energy efficiency activity in the market general (leveraging other work)
- Analysis of self-reported data from (Residential and Non-Res) team surveys
- Creates a baseline for future pre-post analysis



## 3. Other Studies Planned

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1. **OBF Multi-Phase Study** beginning in Q2 2014
  - Phase one: scoping, baseline and history
  - Phase two: final study and calculation of energy savings
  
2. **Annual Financing Snapshot and Verification Study: Q4 2014**
  - Early snapshot of the State of Financing Pilots and Programs in CA
  - Review of program tracking data and assessment of program roll-out
    - Might include some early impacts if participant data is available
  
3. **End-of-Cycle Impacts: beginning in Q4 2015**
  - Local Programs – Q4 2015
  - Statewide Pilots – TBD/Q4 2016

# Timeline

	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15	Q1 16	Q2 16	Q3 16	Q4 16	Q1 17
<b>Crosscutting Research</b>	█	█	█										
<b>Supply-Side Baseline</b>	█	█	█	█									
<b>Demand-Side Baseline</b>		█	█	█									
<b>OBF Multi-Phase Study</b>		█	█	█	█	█							
<b>Annual Snapshot and Verification Study</b>				█	█	█							
<b>End-of-Cycle Impact Studies</b>													
• Statewide Pilots													█
• Local Programs								█	█				

# Budget

Task	Rough Cut Budgets (before scoping)
• Cross-Cutting Background and Attribution Research	\$350K
• Supply-Side Baseline	\$400K
• Demand-Side Baseline	\$500K
• Multi-phase OBF	\$350K
• Annual Snapshot and Verification Study	\$100K
• End-of-Cycle Impact Studies	\$700K
<b>Total</b>	<b>\$2.4M</b>

# ADDITIONAL COMMENTS?

Go To:

<http://www.energydataweb.com/cpuc/search.aspx?did=1034>



