

SCE Energy Efficiency Third Party Solicitation Bidder's Technical Training

August 10, 2018

Welcome & Safety

Angela Taglinao

Energy for What's AheadSM



ANTITRUST GUIDELINES AND CODE OF ETHICS

A code of ethics has been established to ensure that the activities of the members adhere to the highest standards of professional conduct, and that they recognize and protect the need for confidentiality when dealing with client or private interests. Compliance with all federal and state antitrust and other laws is essential. We must avoid any communications among member companies that might be construed to involve competitively sensitive matters, including the following topics:

- Prices or costs of producing a product
- Terms and conditions of sales or purchases
- Limits on production or product lines
- Allocating customers or territories
- Marketing plans
- Analysis or projections of industry conditions
- Refusing to deal with a customer/supplier or agreeing to treat a customer/supplier in a certain way
- Bidding for, or solicitation of, particular customers or suppliers

Participants in this training and webinar should not discuss any of these topics, whether during the meeting or call or any of its breaks, breakout sessions, side conversations, etc. If any of these topics are raised during the meeting or call, the meeting or call will be paused, and if no remedy is available, the meeting or call will end immediately.

Introductions

Eugene Ayuyao

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Third-Party Solicitation Process

- SCE is seeking innovative program ideas to be designed and implemented by third parties that focus on providing innovative approaches to support and help provide the best chance of achieving shared energy efficiency and State goals at the lowest cost to customers and the economy.
- By 2022, SCE is targeting to have at least 60% of our Energy Efficiency (EE) programs operated by third parties. To meet this goal, various solicitations for program design & implementation have been scheduled to cover a range of sectors. (Commercial, Industrial, Residential, Public , Agriculture, Cross-Cutting)
- Each phase will utilize a two-stage bidding process—a Request for Abstract (RFA) stage followed by a Request for Proposal (RFP) stage.
 - RFA – High level program concepts
 - RFP – Includes a comprehensive program design and CET

Today's Topics

- Third Party Solicitation Resources
- SCE Customized Process
- Workpaper Development Process
- NMEC Update & Overview
- DR Overview and IDSM
- SCE Time of Use
- Cost Effectiveness Tool
- PEPMA Intro & Tools

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SCE Solicitation Timeline & Website

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SCE Solicitation Timeline

	Description	Sector	Subsector Focus / Program Concepts / SW Program	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020
SCE	Open Sector RFA / RFP	Commercial						Launch				
SCE	Open Sector RFA / RFP	Industrial	-	RFA	Start		End	Launch				
SCE	Open Sector RFA / RFP	Residential						Launch				
SCE	Statewide Prog RFA / RFP	Residential	SW - Lighting Program	RFA	Start		End	Launch				
SCE	Open Sector RFA / RFP	Public Sector				RFA	Start		End	Launch		
SCE	Statewide Prog RFA / RFP	Public Sector	SW - Institutional Partnerships (UC, CSU, CCC) and			RFA	Start		End	Launch		
SCE	Statewide Prog RFA / RFP	Cross Cutting	SW - Electric Emerging Technologies			RFA	Start		End	Launch		
SCE	Open Sector RFA / RFP	Agricultural	-					RFA	Start		End	Launch
SCE	All Sector RFA	All	Future Targeted RFPs as Needed (per RFA results)							RFA		

Visit: www.sce.com/eesolicitation

Quick Services	▲
Your Home	▲
Your Business	▲
Customer Support	▲
Partners & Vendors	—
Overview - Partners & Vendors	
Partnerships	▲
Buying and Selling	▲
Consulting Services	▲
Real Estate and Locations	▲
EE Solicitation	
Outage Center	▲
Safety	▲

Energy Efficiency Solicitations for Third Parties

Home > Partners & Vendors > **EE Solicitation**

Energy Efficiency Program Solicitations: Resources for Third Parties

By 2022, SCE is targeting to have at least 60% of our Energy Efficiency (EE) programs operated by third parties. To meet this goal, various solicitations for program design & implementation have been scheduled to cover a range of sectors.



- SCE EE Local Solicitation: Phase 1 - Commercial, Industrial, Residential
- Statewide EE Solicitation: Lighting Program
- SCE EE Local Solicitation: Phase 2 - Public Sector, Cross-Cutting
- Statewide EE Solicitation: Electric Emerging Technology
- Statewide EE Solicitation: Gov. & Inst. Partnerships and Water/Wastewater Pumping
- SCE EE Local Solicitation: Phase 3 - Agricultural, Non-Resource

Each phase will utilize a two-stage bidding process—a **Request for Abstract (RFA)** stage followed by a **Request for Proposal (RFP)** stage. PEPMA is the official site to download and submit bids. All contracts executed by SCE and selected bidders that are valued at over \$5 million or with a term of longer than three years must be submitted to the CPUC for approval, via a Tier 2 advice letter.

Implementation plans are to be posted no later than 60 days after a third-party contract has been executed, or in the case of contracts that are required to be submitted via advice letter for Commission approval, 60 days after Commission approval of the third party contract.



Schedule of Upcoming Solicitations

Explore a detailed schedule of all our upcoming solicitations, including statewide solicitations. This schedule is subject to change at any time.

[Download Schedule >](#)

General Resources

PEPMA

All RFA and RFP submissions are accepted through the [PEPMA website](#).

[PEPMA User Instructions](#)

SAP/ARIBA

We use [SAP/Ariba](#) to manage our procurement activities. Third Parties wishing to do business with SCE can register and qualify online.

[Ariba Supplier Self-Registration Instructions](#)

Training Materials

SCE Bidder Technical Training

Date: August 10th, 2018

[RSVP](#)

EE Work Papers

Deemed measures for EE programs are required to have an approved Work Paper by the CPUC.

[Work Paper Training Video Chapter 1](#)

[Work Paper Training Video Chapter 2](#)

[Work Paper Training Video Chapter 3](#)

[Work Paper Training Video Chapter 4](#)

Cost Effective Tool (CET)

The CET is an application used to evaluate energy efficiency programs, measures, and portfolios. It is required in order to respond to an SCE EE Third Party Solicitation RFA or RFP.

[Cost Effectiveness Tool website](#)

[CET Overview Presentation](#)

[CET Training Video](#)

[CET Input Measure Information](#)

Regulatory Information

[California Public Utilities Commission \(CPUC\)](#)

[18-05-041 CPUC Decision EE Business Plan](#)

[Third Party Solicitation Decision](#)

[Joint Motion for Approval of Proposed Standard Third-Party Contract Terms, Application 17-01-013](#)

[CPUC Resolution E-4818](#)

[CPUC Rolling Program Portfolio Guidance, including Draft Rulebook for Custom Program and Projects Based on Normalized Metered Energy Consumption \(NMEC\) and other technical guidance documents.](#)

[CPUC Decision 16-08-19](#)

[CPUC Decision 05-01-055](#)

[SCE Business Plan](#)

California Energy Efficiency Statistics & CEDARS

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California Energy Efficiency Statistics Functions



Members of the public

May download and view:

- ➔ information about the portfolio of programs
- ➔ PA-confirmed claims for the current reporting year
- ➔ budget filings for the upcoming year
- ➔ program documents
- ➔ cost effectiveness data
- ➔ claim data summaries
- ➔ data specifications and value lists
- ➔ history of changes to programs
- ➔ PA-confirmed monthly reports

- EE Data
- **CEDARS**
- Evaluation
- Regulatory
- Resources



California Public Utilities Commission



CALIFORNIA ENERGY EFFICIENCY STATISTICS

Energy Efficiency Data | CEDARS | Evaluation | Regulatory | Resources | Site Feedback

LOGIN

Looking for Energy Efficiency Program Tracking DATA?

Raw data sets are now available to download

[CLICK HERE](#)



- ### QUICK LINKS
- [CPUC Energy Efficiency](#)
 - [California Energy Commission](#)
 - [Pacific Gas and Electric Co.](#)
 - [Southern California Edison](#)
 - [San Diego Gas and Electric](#)
 - [Southern California Gas](#)
 - [Marin Clean Energy](#)
 - [Southern California REN](#)
 - [Bay Area Regional Energy Network](#)
 - [California Solar Statistics](#)
 - [Flex Your Power - Flex Alerts](#)



California Public Utilities Commission
Energy Efficiency

CPUC works with the investor-owned utilities, other program administrators, and vendors to develop programs and measures to transform technology markets within California using ratepayer funds through incentive mechanisms.

[GO >](#)



Utility and Program Administrator Reports

EE Program administrators are required to file timely low-income program tracking reports with the CPUC. Click here to download the source reports. There are also historic EE Program administrator program tracking reports for pre Q3 2017.

[GO >](#)



CEDARS

The California Energy Data And Reporting System (CEDARS) is the referential data system for energy efficiency program tracking claims and annual program budget filings. To see program-specific information, [click here](#).

[GO >](#)



Announcements

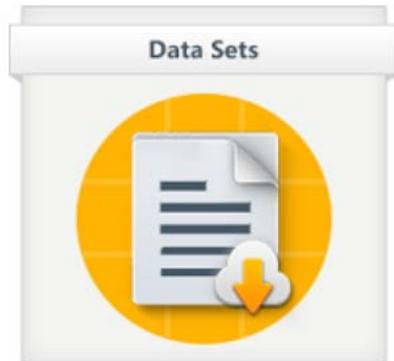
Monthly energy efficiency program reports have moved to CEDARS! Please click the CEDARS link, above.

[GO >](#)

EE Data Portal



- **Data Viewer** - provides a platform to see:
 - Savings for electricity and natural gas
 - Demand reduction
 - Emissions reductions
 - Program expenditures
 - Cost effectiveness



- **Data Sets** - files contain various:
 - Energy efficiency program data,
 - Summaries of the quarterly energy efficiency program tracking claims
 - Evaluation updates

Note that:

- All data have had personally-identifiable customer information removed
- Each file contains a data dictionary and description of the level(s) at which data have been aggregated
- Updated data sets are identified by date.



Energy Efficiency Data Download

 Data Category:

Description	File Name	Upload Date
New: Energy Efficiency 2017Q3 program quarter accomplishments for resource and non-resource programs. This file contains savings, expenditures, cost effectiveness and emissions for the 2017Q3 time period at a summary level. Anticipated updates include addition of evaluation results.	EEData_2017Q3_Summary_V1.xlsx	12/13/2017
New: Energy Efficiency 2017Q3 program quarter accomplishments for resource and non-resource programs. This file contains savings, expenditures, cost effectiveness and emissions for the 2017Q3 time period by quarter. Anticipated updates include addition of evaluation results.	EEData_2017Q3_Quarterly_V1.xlsx	12/13/2017
New: Energy Efficiency 2017Q3 program quarter accomplishments for resource and non-resource programs. This file contains savings, expenditures, cost effectiveness and emissions for the 2017Q3 time period by zip code. Anticipated updates include addition of evaluation results.	EEData_2017Q3_ZipCode_V1.xlsx	12/13/2017
Updated: Energy Efficiency Full Program Cycle (2013-2015) accomplishments for resource and non-resource programs. This file contains savings, expenditures, cost effectiveness and emissions for the program years 2013-2015. This update includes evaluation results.	EEData_CompleteProgramCycle_2013_2015_Summary_V5.xlsx	11/08/2017
Updated: Energy Efficiency Full Program Cycle (2013-2015) accomplishments for resource and non-resource programs. This file contains savings, expenditures, cost effectiveness and emissions for the program years 2013-2015 by quarter. This update includes evaluation results.	EEData_CompleteProgramCycle_2013_2015_Quarterly_V5.xlsx	11/08/2017
Updated: Energy Efficiency Full Program Cycle (2013-2015) accomplishments for resource and non-resource programs. This file contains savings, expenditures, cost effectiveness and emissions for the program years 2013-2015 by zip code. This update includes evaluation results.	EEData_CompleteProgramCycle_2013_2015_ZipCode_V5.xlsx	11/08/2017
Updated: Energy Efficiency 2016 program year accomplishments for resource and non-resource programs. This file contains savings, expenditures, cost effectiveness and emissions for the 2016 time period at a summary level. Anticipated updates include addition of evaluation results.	EEData_2016_Summary_V1.xlsx	06/30/2017
Updated: Energy Efficiency 2016 program year accomplishments for resource and non-resource programs. This file contains savings, expenditures, cost effectiveness and emissions for the 2016 time period by quarter. Anticipated updates include addition of evaluation results.	EEData_2016_Quarterly_V1.xlsx	06/30/2017
Updated: Energy Efficiency 2016 program year accomplishments for resource and non-resource programs. This file contains savings, expenditures, cost effectiveness and emissions for the 2016 time period by zipcode. Anticipated updates include addition of evaluation results.	EEData_2016_ZipCode_V1.xlsx	06/30/2017
Energy Efficiency Full Program Cycle (2010-2012) accomplishments for resource programs. This file contains savings, expenditures, cost effectiveness and emissions for the program years 2010-2012 at a summary level. This update includes additional scenarios and non-resource program costs.	EEData_2010Q1-2012Q4_Chart_v1.xlsx	07/01/2015
Energy Efficiency Full Program Cycle (2010-2012) accomplishments for resource programs. This file contains savings, expenditures, cost effectiveness and emissions for the program years 2010-2012 by quarter. This update includes additional scenarios and non-resource program costs.	EEData_2010Q1-2012Q4_TimeSeries_v1.xlsx	07/01/2015
Energy Efficiency Full Program Cycle (2010-2012) accomplishments for resource programs. This file contains savings, expenditures, cost effectiveness and emissions for the program years 2010-2012 by zip code. This update includes additional scenarios and non-resource program costs.	EEData_2010Q1-2012Q4_Geographic_v1.zip	07/01/2015

Data Set Q3/2017

EEData_2017Q3_Summary_V1.xlsx - Excel

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PA	ProgramID	ProgramName	ProgramType	ProgramImplementer	StatewideProgram	MarketSector	MeasureGroup	EndUse	BusinessType
SCE	SCE-13-SW-001	Energy Advisor Program	Resource	IOU Core/Statewide	Energy Advisor	Residential	Survey Residential Mai	Whole Building	Resid
SCE	SCE-13-SW-001	Energy Advisor Program	Resource	IOU Core/Statewide	Energy Advisor	Residential	Survey Residential Mai	Whole Building	Resid
SCE	SCE-13-SW-001	Energy Advisor Program	Resource	IOU Core/Statewide	Energy Advisor	Residential	Survey Residential Ons	Whole Building	Resid
SCE	SCE-13-SW-001	Energy Advisor Program	Resource	IOU Core/Statewide	Energy Advisor	Residential	Survey Residential Ons	Whole Building	Resid
SCE	SCE-13-SW-001	Plug Load and Appliances	Resource	IOU Core/Statewide	Plug Load and Appliances	Residential	Appliance Clothes Was	Appliance	Resid
SCE	SCE-13-SW-001	Plug Load and Appliances	Resource	IOU Core/Statewide	Plug Load and Appliances	Residential	Appliance Clothes Was	Appliance	Resid
SCE	SCE-13-SW-001	Plug Load and Appliances	Resource	IOU Core/Statewide	Plug Load and Appliances	Residential	Appliance Clothes Was	Appliance	Resid
SCE	SCE-13-SW-001	Plug Load and Appliances	Resource	IOU Core/Statewide	Plug Load and Appliances	Residential	Appliance Refrigerator	Appliance	Resid
SCE	SCE-13-SW-001	Plug Load and Appliances	Resource	IOU Core/Statewide	Plug Load and Appliances	Residential	Building Envelope Ceili	HVAC	Resid
SCE	SCE-13-SW-001	Plug Load and Appliances	Resource	IOU Core/Statewide	Plug Load and Appliances	Residential	Building Envelope Wall	HVAC	Resid
SCE	SCE-13-SW-001	Plug Load and Appliances	Resource	IOU Core/Statewide	Plug Load and Appliances	Residential	HVAC EVAP Cooler	HVAC	Resid
SCE	SCE-13-SW-001	Plug Load and Appliances	Resource	IOU Core/Statewide	Plug Load and Appliances	Residential	Other	Other	Resid
SCE	SCE-13-SW-001	Plug Load and Appliances	Resource	IOU Core/Statewide	Plug Load and Appliances	Residential	Pool Pump	Other	Resid
SCE	SCE-13-SW-001	Plug Load and Appliances	Resource	IOU Core/Statewide	Plug Load and Appliances	Residential	Water Heating Other	Water Heating	Resid
SCE	SCE-13-SW-001	Multifamily Energy Efficie	Resource	IOU Core/Statewide	Multifamily Energy Efficiency Rebates Pro	Residential	HVAC Controls Fan	HVAC	Resid
SCE	SCE-13-SW-001	Multifamily Energy Efficie	Resource	IOU Core/Statewide	Multifamily Energy Efficiency Rebates Pro	Residential	Lighting Indoor CFL Fix	Indoor Lighting	Resid
SCE	SCE-13-SW-001	Multifamily Energy Efficie	Resource	IOU Core/Statewide	Multifamily Energy Efficiency Rebates Pro	Residential	Lighting Indoor Contro	Indoor Lighting	Resid
SCE	SCE-13-SW-001	Multifamily Energy Efficie	Resource	IOU Core/Statewide	Multifamily Energy Efficiency Rebates Pro	Residential	Lighting Indoor LED Fix	Indoor Lighting	Resid
SCE	SCE-13-SW-001	Multifamily Energy Efficie	Resource	IOU Core/Statewide	Multifamily Energy Efficiency Rebates Pro	Residential	Lighting Indoor LED Lar	Indoor Lighting	Office

597 OF 3910 RECORDS FOUND

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW DEVELOPER ACROBAT

Clipboard: Paste, Cut, Copy, Format Painter

Font: Calibri, 11, Bold, Italic, Underline, Text Color, Background Color

Alignment: Wrap Text, Merge & Center

Protection: Share Protected

Number: Accounting, \$, %, .00, .00

Styles: Conditional Formatting, Format as Table, Cell Styles

Cells: Insert, Delete, Format, AutoSum, Fill, Clear

B12404 : X ✓ fx

0.000215215911210275

	AI	AK	AM	AN	AO	AP	AQ	AU	AW	BI
1	TRC	PAC	RIM	RIM_Even	ElecBen	GasBen	TRC_Cost	PAC_Cost	RIM_Cost	Weighted Adopted Budget
2400	1.15	1.17	0.50	-	\$ 27,452.77	\$ -	\$ 23,892.63	\$ 23,530.16	\$ 54,511.21	\$ 0.06
2401	1.15	1.17	0.50	-	\$ 82,104.79	\$ -	\$ 71,297.78	\$ 70,221.32	\$ 162,871.27	\$ 0.19
2402	1.68	1.68	0.57	-	\$ 4,456,018.39	\$ -	\$ 2,650,456.13	\$ 2,650,083.55	\$ 7,837,070.78	\$ 10.31
2403	0.71	0.73	0.40	-	\$ 2,567.52	\$ -	\$ 3,629.40	\$ 3,529.08	\$ 6,477.67	\$ 0.01
2404	0.50	0.50	0.33	-	\$ 168.14	\$ -	\$ 335.43	\$ 338.06	\$ 506.31	\$ 0.00
2405	0.70	0.73	0.42	-	\$ 132,047.66	\$ -	\$ 188,434.12	\$ 180,472.03	\$ 312,178.04	\$ 0.17
2406	0.78	0.75	0.43	-	\$ 772.69	\$ -	\$ 995.50	\$ 1,028.61	\$ 1,797.36	\$ 0.00
2407	0.59	0.57	0.36	-	\$ 70,120.52	\$ -	\$ 118,940.01	\$ 123,648.76	\$ 193,619.77	\$ 0.09
2408	-	-	-	-	\$ -	\$ -	\$ 33.71	\$ 34.34	\$ 34.34	\$ -
2409	0.05	0.14	0.13	-	\$ 9.95	\$ -	\$ 214.28	\$ 72.42	\$ 79.29	\$ 0.00
2410	1.04	2.17	0.88	-	\$ 21,858.57	\$ -	\$ 21,067.63	\$ 10,053.83	\$ 24,883.38	\$ 0.03
2411	0.29	0.98	0.66	-	\$ 344,459.18	\$ (50,079.35)	\$ 1,005,335.17	\$ 301,489.31	\$ 448,406.72	\$ 0.44
2412	-	-	-	-	\$ -	\$ -	\$ 293,593.81	\$ 351,356.98	\$ 351,356.98	\$ -
2413	2.44	2.31	0.81	-	\$ 4,797,015.12	\$ -	\$ 1,969,173.18	\$ 2,074,759.18	\$ 5,913,039.72	\$ 6.14
2414	0.40	1.53	0.59	-	\$ 7,714.82	\$ -	\$ 19,433.46	\$ 5,051.70	\$ 13,077.47	\$ 0.01
2415	2.16	2.29	0.96	-	\$ 672,636.49	\$ -	\$ 311,746.88	\$ 293,111.85	\$ 697,641.39	\$ 0.80
2416	1.50	1.59	0.60	-	\$ 233,466.50	\$ (22,193.34)	\$ 140,489.33	\$ 132,483.90	\$ 354,991.90	\$ 0.28
2417	7.56	8.36	0.87	-	\$ 340.32	\$ (35.95)	\$ 40.24	\$ 36.41	\$ 349.42	\$ 0.00
2418	9.16	10.24	0.86	-	\$ 617,611.72	\$ (64,805.57)	\$ 60,342.16	\$ 53,988.82	\$ 645,319.43	\$ 0.74
2419	1.02	1.08	0.42	-	\$ 561.81	\$ -	\$ 551.70	\$ 522.26	\$ 1,323.76	\$ 0.00

SW Coordination Efforts

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SCE Customized Process – Calculated Incentive Process

Ryan Cho, Ex-Ante Review Lead (Custom), EPM

Agenda

CPUC expectations for custom projects

Custom Process Overview - video

Q&A

CPUC expectations for Custom Projects

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Where did it all begin? – Custom Projects

Commission Decision 11-07-030 established a process by which ex ante energy savings estimates from custom measures and projects are reviewed.

Required IOUs to follow the Energy Division custom project ex ante review process

CPUC requires (per D.11-07-030) that custom projects shall not have signed incentive agreements before CPUC Staff have an opportunity to select or waive a project via the bi-monthly CMPA project list submission

Purpose of Ex-Ante Review

IOUs to exercise the highest standard of care in developing ex ante savings estimates

To ensure that custom projects provide incremental savings benefits to ratepayers



CPUC Expectations

Compliance to the ex-ante review policies and procedures established by Attachment B of D.11-07-030

- Bi-Monthly custom project lists submission
- Expected data elements for each project selected for a review:
 - Documentation to support Baseline assignment
 - Existing system controls and operating status description
 - Existing system output capacities – current output and maximum/design capacity
 - Pre-installation inspection report
 - Post-installation inspection report
 - Proposed modifications with schematic as applicable
 - Preliminary savings calculations and supporting data with documentation to ensure replicability
 - Manufacturer's cut sheets when used to estimate ex ante savings or when needed to ensure replicability
 - Fuel switching considerations and any required analysis per CPUC policy regarding fuel switching projects.
 - And more ...

Note: This is not exhaustive. Find more resources on the [CPUC's website](#).

Efficiency Savings and Performance Incentive (ESPI)

- [ESPI EAR Performance Memos](#) from 2013 to 2018 available
- Annual feedback from Commission Staff
- On-going Issues
 - Lack of evidence of program influence
 - Inadequate calculation methodology and analysis approaches
 - Insufficient measurement and verification plans
 - Systematic errors in a widely used statewide calculation tool
 - Incomplete documentation in project submittals

Key Resources

- [SCE Energy Management Online Application Tool](#)
 - Project Feasibility Study Template
 - Energy Efficiency Project Influence Job Aid
 - Statewide Customized Offering Procedures Manual
 - Statewide Customized Calculated Savings Guidelines
 - Early Retirement Consideration Checklist
 - Early Retirement Guidance Document
 - Preferred Calculated Tools List
 - Solutions Directory
 - And more ...

Customized and Retrocommissioning Solution's Overview - video

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[Understanding SCE's Calculated Project Incentive Process - Video](#)

Q&A

Energy for What's AheadSM



Influence

For Calculated Energy Efficiency Incentives

Christopher Scott

Program Manager

SCE Business Core & Finance Programs

The Origins of Influence

For custom projects the adopted ex-ante review process provides Commission Staff (CPUC) with the ability to review and update ex-ante values, including NTG (net to gross) for those projects.

- IOUs (investor owned utilities) are expected to respond to Commission staff reviews by taking steps to improve NTG results
- Utility programs should strive to push customers to augment projects to include action that would not occur without incentive support

What this means...

- Influence requirements were put in place to ensure proper use of rate-payer funds
- Customers should only receive incentives for energy efficiency projects above and beyond what they were already going to do
- Incentives should not be paid for projects a customer is already going to do

Influence – What SCE Has Developed

Influence requirements were developed and implemented to:

- Improve the quality of influence (evidence) provided to supports project narratives
- Provide internal guidelines on what is an acceptable level of influence needed to support projects based on project incentive values
- To centralize influence related criteria that **do not** utilize Yes/No questions or communications

2 types of information that support a project = they are often misunderstood

1. Narrative
2. Influence

The Narrative tells the story

Influence supports the story

Analogy: If your are in court trying to prove you are innocent of a crime, your alibi (narrative) is not enough, you must provide the evidence (influence) that supports your alibi (story).

- You cannot have one or the other, and the two are not interchangeable, you must have both
- Influence must pre-date the application submission

Influence Drivers

SCE has established 3 Key Drivers that encompass every Calculated project on a measure level:

1. Identification:

- The program assists the customer in identifying energy efficiency opportunities

2. Technical Assistance:

- The program provides technical resources to facilitate the project
- e.g. equipment inventory, equipment testing, data logging, facility audit, etc.

3. Financial Assistance:

- When the availability of incentive support to the customer directly becomes the deciding factor in the selection of a more efficient alternative solution to the one or ones that would otherwise be selected

Evidence of Influence Hacks

Commission Staff looks for

1. Documented communications primarily from the end-use customer
2. With screen shots of emails, meetings minutes, audit reports, pictures, etc.

Examples

- How the initial communication with the implementer was initiated
- What the Customer was going to do prior to being influenced by the implementer
- What the Customer was moved to do after being influenced by the implementer
- Who the Customer decision maker(s) were, how the decision was made and when
- The business requirements that had to be fulfilled in order for the Customer to move forward with the measure/project
- The financial requirements that had to be fulfilled in order for the Customer to move forward with the measure/project

Additional Resources

https://www.sceonlineapp.com

Standards for Custom Project Development

This document provides awareness about the guidelines and expectations that SCE has put in place for custom projects that are submitted for ex ante review ("technical review") and approval.

03/13/2018

Energy Efficiency Project Influence Job Aid

The influence job aid defines Southern California Edison's influence requirements for all calculated energy efficiency incentive project submissions. All trade professionals, vendors, non-residential customers and project developers are required to submit measure level influence within a Project Feasibility Study. If you have questions about the job aid or SCE's program requirements, please contact your assigned account representative, or call (866) 635-6015.

05/18/2018

Statewide Customized Calculated Savings Guidelines

For Non Residential Programs, July 1, 2018 SCE's Customized Calculation Savings Guidelines (Rev. 21.0). The purpose of these guidelines are to establish standardized electric energy savings and demand reduction estimation and verification methods that are compatible with existing California energy efficiency policy, as well as to document lessons learned and interpretations from past program cycles.

07/19/2018

Project Feasibility Study

A PFS is required for all calculated energy efficiency incentive projects (Customized, RCx, Public Sector (Partnerships), and Third Party Programs). This PFS was developed to include all required project information in one document. The EE Project Influence Job Aid will help determine the influence information and documentation to include in the PFS. If you have questions about the PFS or SCE's program requirements, please contact your assigned account representative, or call (866) 635-6015.

05/18/2018

Statewide Customized Offering Procedures Manual

For Non Residential Calculated Programs, January 2018

01/09/2018

Solutions Directory - 2nd Quarter 2018

Southern California Edison's Solutions Directory (Directory) is a reference guide that lists eligible equipment (solutions) and qualification criteria for rebates or incentives available to non-residential (business) customers through SCE's Express Solutions and Customized Solutions energy efficiency programs, and the Automated Demand Response technology incentive programs. Refer to this guide as you consider energy management opportunities.

07/20/2018

RCx Program Guidelines

RCx Program Guidelines for Commercial & Institutional Buildings, v5. 2017 Southern California Edison Retrocommissioning Program

11/15/2017

RCx Training Completion Form

Southern California Edison Retrocommissioning Training Completion Form v1.1

09/27/2017

Calculated Incentives EUL-Simple Payback Tool

Effective June 1, 2018, SCE's Calculated (Customized & RCx/BRO), Public Sector (Partnerships) and Third Party (3P) programs implemented a simple payback threshold requirement on all new Calculated (Customized and RCx/BRO) projects. This means that a project's Effective Useful Life (EUL) must be greater than the simple payback of the project.

Easy Lighting Calculator (eLC) Version 3.1.

Due to changes in confidentiality language, the easy Lighting Calculator (eLC) has been updated to Version 3.1 effective 4/1/2017, and should be used on all calculated projects going forward. Projects that have previously been calculated utilizing Version 3.0 will continue to be accepted since there were no changes to the actual calculation tool. The easy Lighting Calculator is designed to allow users to estimate the whole building and direct energy savings of a lighting retrofit project per the

Lighting HVAC Interactive Effects workbook

An updated Lighting HVAC Interactive Effects workbook includes the new hours-of-use and peak period coincident demand factors.

DEER Lighting Occupancy Sensor Reduction Factors

This file includes the DEER Occupancy Sensor Reduction Factors.

Discussion

Energy for What's AheadSM

Energy for What's AheadSM



5-Minute Break

Energy for What's AheadSM



Deemed Measures and Workpapers

Review of Energy Efficiency Measures

Submitting a Workpaper

Workpaper Review

Workpaper Templates

Jay Madden

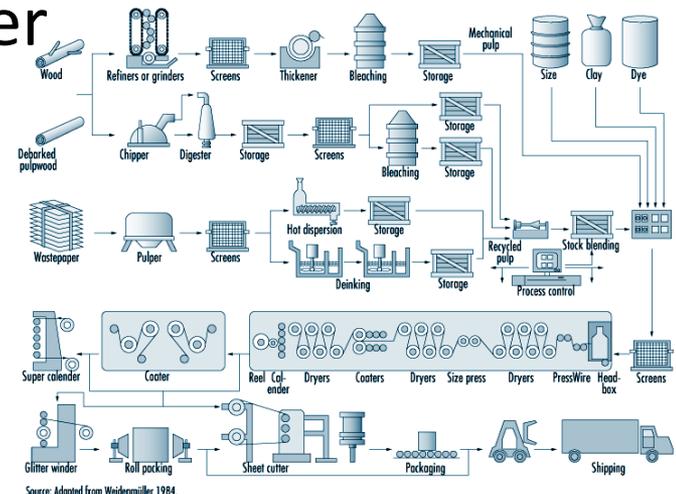
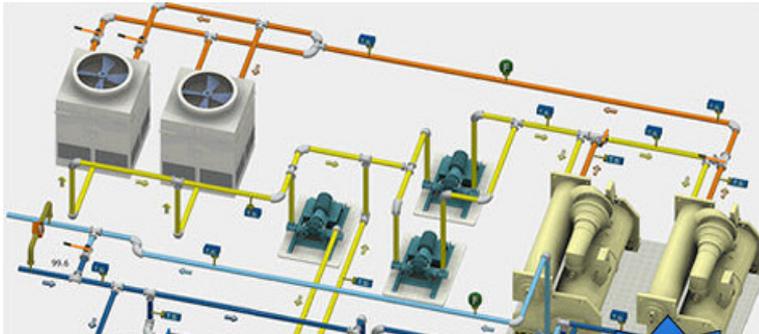
Types of Energy Efficiency Measures

➤ Custom

- Specific to Customer's Site
- Suitable for Larger Applications, Like Industrial Processes and Complex Air Conditioning Systems

➤ Deemed

- Pre-Determined Savings and Costs
- Simplifies Delivery to Customer
- Example – Lighting Measures



Workpapers

- Prepared for Deemed Measures
- Used to Define Energy Savings
- Can Be Written by Utility or a 3rd Party
 - At This Time, Only IOUs Can Submit Workpapers to CPUC for Review

Workpaper Content

- Baseline Cost and Energy Usage
 - What the Customer Would Have Done Absent Program Influence
- Incremental Added Cost of Measure
- Energy Savings Over the Baseline
- Net-to-Gross
 - What Percentages of Customers Would Have Taken the Energy Efficiency Action Anyway
- Other Factors

Submittal Process – Existing Workpaper

- SCE has Prepared a Library of Workpapers
- Revisions to Existing Workpapers Accomplished By Submitting an EA Request to eas@sce.com



Submittal Process – Existing Workpaper

1. Go to SCE On-line Application Tools: <https://www.sceonlineapp.com>
2. Click on “Forms”

Energy Management Online x

Secure | <https://www.sceonlineapp.com>

Apps | Honeywell - My Total | Edison International | Workpaper Plan | ETRM | Smartsheet.com | Shared Files QPQI | PO Manager Login | Emerging Products D

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

Support/Feedback?

Log In

User Name:
Password:
 Remember Me **LOG IN**

If you are a new user at this site, please [Register](#)

Forgot your password?
Note that the User Name and Password for this site are **separate than that for SCE.com.**

SCE.com
Register
Online Application Tool
Home
Solutions Tool
Programs
Express Solutions
Customized Solutions
Retrocommissioning
Midstream Point of Purchase
Limited Time Offerings
Resources
Solutions Directory
Trade Professionals
Contractor Center
Manuals and Guides
Solution Codes and Expected Useful Life (EUL)
Forms

SCE Energy Management Online Application Tool

This tool allows you to apply online for incentives on qualified energy efficiency and demand response projects. A project may include the retrofit of existing equipment or systems, the installation of new equipment to accommodate new or added load, and implementing strategies to participate in demand response.

Simply log in to get started. Or, if you are a new user to the Online Application Tool, you must complete a simple **registration** process first, and then log in.

What's New

- Updated Customized Calculated Savings Guidelines (CCSGs) Version 21 Is Now Available - Updated: Jul 19, 2018
- Express Solution Rebates Are Now Available For Qualifying Streetlights - Until 12/28/18 - Updated: Jul 12, 2018
- The 2018 Q2 Solutions Directory Is Now Available - Updated: Jun 29, 2018
- UPDATE: On Bill Financing (OBF) Now Available For Qualified LED High/Low Bays And Exterior Lighting Offered In The Midstream Point Of Purchase (MPOP) Program - Updated: Jun 26, 2018
- Calculated Interior LED Parking Garage Luminaires Will Be Ineligible Effective July 1, 2018 - Updated: Jun 19, 2018
- New 2018 Midstream Point Of Purchase (MPOP) Program LED High/Low Bay And LED Exterior Lighting Fixtures Are Now Available - Updated: Jun 18, 2018
- SCE Trade Professional Directory Is Offline - Updated: Jun 14, 2018
- New Pump Overhaul Job Aid - Updated: Jun 13, 2018

Submittal Process – Existing Workpaper (Cont.)

3. Select and open the EAS Application Form.
4. Complete and submit the form.

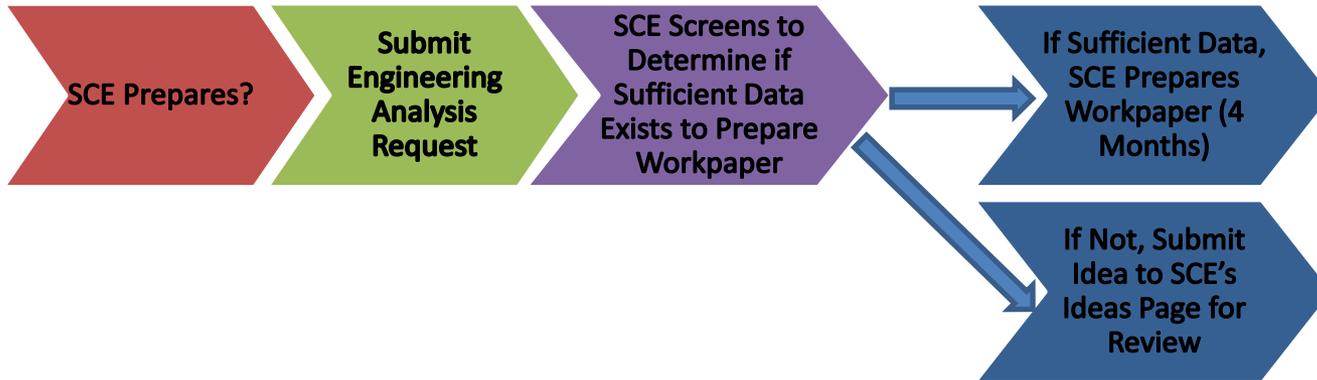
Link	Document Title	Due Date
Resources	Southern California Edison Retrocommissioning Training Completion Form v1.1	
Solutions Directory	TradePro Directory Enrollment Form <i>Submit this form to request to be listed in the SCE Trade Professional Directory. Only approved Trade Professionals are eligible to appear on the Trade Professional Directory.</i>	05/15/2017
Customized and RCx Solutions Overview		
Trade Professionals		
Contractor Center	CA-587 <i>California Withholding form for out of state payees.</i>	04/12/2017
Manuals and Guides	CA-590 <i>California Withholding form</i>	04/12/2017
Solution Codes and Expected Useful Life (EUL)		
Forms	Trade Professional Participation Agreement <i>In order to be eligible to be a Trade Professional, your company must execute and submit this Agreement.</i>	04/05/2017
Energy Savings Calculation Tools	IRS W-9 <i>Federal Tax file</i>	04/06/2016
Support	Customized - Early Retirement Incentive Cap Tool <i>Per Commission direction, incentives for Early Retirement measures are capped at the Actual Early Retirement Cost (ERC). ERC is the difference between installing an efficient measure now compared to installing code/Industry Standard Practice (ISP) equipment in the future, and represents the effective incremental cost of installing the measure. Applicants with early retirement measures must include a completed "Early Retirement Incentive Cap Tool" with their application.</i>	02/02/2016
About	Product Location Form <i>Product Location Form</i>	03/09/2015
	DSM Engineering Quality Control Checklist <i>Calculated project quality control checklist</i>	03/06/2015
	Engineering Analysis (EA) Request Form <i>Request form for new SCE Solution Codes</i>	03/05/2015

[Learn about the Comprehensive Bonus](#)



Submittal Process – New Workpaper, SCE Prepared

- Requests to SCE to Prepare Workpaper Submitted to eas@sce.com



Let us know!

visit
on.sce.com/ideas
to share your idea



Submittal Process – New Workpaper, 3rd Party Prepared

- 3rd Party Writes Workpaper
- 3rd Party Requests SCE to Provide Workpaper QC Review, at eas@sce.com
- SCE Reviews Paper
- 3rd Party Revises



Workpaper Review

Workpapers Are Reviewed by the Energy Division of the California PUC

The CPUC may:

- Approve
- Request Changes
- Provide Interim Approval
 - By Not Responding within a Set Time Period
 - May Require Prospective Changes After a Subsequent Review

Workpaper Details (Word and Excel)

- SCE Workpaper Template (Word Document)
 - <https://www.sceonlineapp.com/>
- SCE Workpaper Calculation Template - Final Version 6.7.5_Final (Calculation Template Excel File)

Workpaper Details (Word and Excel)

project information in one document. The EE Project Influence Job Aid will help determine the influence information and documentation to include in the PFS. If you have questions about the PFS or SCE's program requirements, please contact your assigned account representative, or call (866) 635-6015. 05/18/2018

Energy Efficiency Project Influence Job Aid
The influence job aid defines Southern California Edison's influence requirements for all calculated energy efficiency incentive project submissions. All trade professionals, vendors, non-residential customers and project developers are required to submit measure level influence within a Project Feasibility Study. If you have questions about the job aid or SCE's program requirements, please contact your assigned account representative, or call (866) 635-6015. 05/18/2018

SCE Workpaper Calculation Template
SCE Workpaper Calculation Template - Final Version 6.7.5 05/15/2018

SCE Workpaper Calculation Template w/Instructions
SCE Workpaper Calculation Template - Final Version 6.7.5_instructions 04/24/2018

Statewide Workpaper Template
Statewide Work Paper Template v0 SCE 09-11-15 04/24/2018

Manual Over Rides for ExAnte Tables
Manual Over Rides for ExAnte Tables 04/24/2018

ExAnte Spec as of Today
ExAnte Spec as of Today 04/24/2018

ExAnte DEER-NonDEER Table Submissions
ExAnte DEER-NonDEER Table Submissions 04/24/2018

Workpaper Template - General

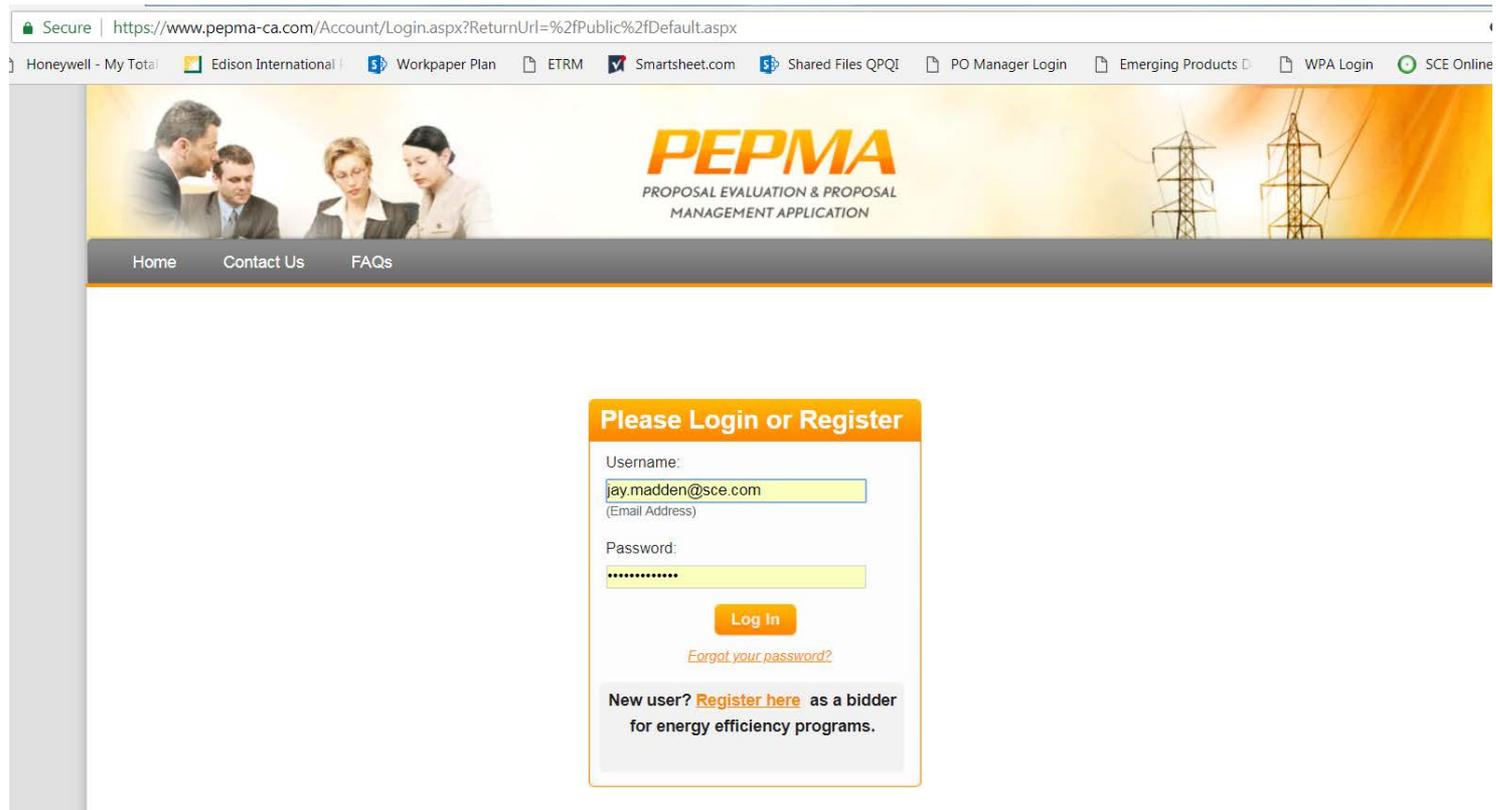
- Read and delete/replace all notes in red.
- Complete “At a Glance Summary” After Completing Workpaper

AT-A-GLANCE SUMMARY

Measure Codes	List all solution/measure codes.
Measure Description	Describe the measure.
Base Case Description	Describe the base case technology that will be replaced with the energy efficient technology. State whether this is the customer’s existing equipment or code/standard equipment.
Units	E.g. per lamp, per ton
Energy Savings	Provide average values, or leave the following text intact: Refer to Excel Calculation Attachment
Full Measure Cost (\$/unit)	Provide average values, or leave the following text intact: Refer to Excel Calculation Attachment
Incremental Measure Cost (\$/unit)	Provide average values, or leave the following text intact: Refer to Excel Calculation Attachment
Effective Useful Life	List all EULs and sources. E.g. 15 years (DEER EUL ID: HVAC-airAC)

I Don't Remember All of This Information!

1. Log into to PEPMA <https://www.pepma-ca.com/Account/Login.aspx?ReturnUrl=%2fPublic%2fDefault.aspx>



The screenshot shows a web browser window with the URL <https://www.pepma-ca.com/Account/Login.aspx?ReturnUrl=%2fPublic%2fDefault.aspx>. The browser's address bar shows the URL, and the tabs include Honeywell - My Total, Edison International, Workpaper Plan, ETRM, Smartsheet.com, Shared Files QPQI, PO Manager Login, Emerging Products, WPA Login, and SCE Online. The page features a header with a banner image of four people in business attire, the PEPMA logo (PROPOSAL EVALUATION & PROPOSAL MANAGEMENT APPLICATION), and a navigation menu with links for Home, Contact Us, and FAQs. The main content area displays a login form titled "Please Login or Register".

Please Login or Register

Username:

(Email Address)

Password:

[Forgot your password?](#)

New user? [Register here](#) as a bidder for energy efficiency programs.

I Don't Remember All of This Information!

2. Click "Home".
3. Click "3rd Party Energy Efficiency Program Solicitations"

The screenshot shows the PEPMA website interface. At the top, a navigation bar includes links for Home, PEPMA Application, Contact Us, FAQs, and Logout. The 'Home' link is circled with a red '2'. The user is logged in as 'jay.madden@sce.com'. The main content area is divided into several sections:

- Welcome to PEPMA:** California Statewide Investor Owned Utilities (IOU) and Energy Efficiency Solicitation Website. This site serves as a resource for:
 - Individuals and organizations to learn about IOU energy efficiency programs
 - Potential bidders to self-register their information
 - Learning about upcoming energy efficiency contracting opportunities
 - Exchange of bid information between individuals, organizations and IOUs
 - Qualifying companies to provide required services to the IOUs
- Participating IOUs:** Logos for Southern California Edison Company, Southern California Gas Company, Pacific Gas and Electric Company, and San Diego Gas & Electric Company.
- Contracting Opportunities:** A section with a photo of three business professionals and a link to view available IOU contracting opportunities.
- Register Now:** A section with a photo of hands signing a document and a link to register with the Proposal Evaluation and Proposal Management Application (PEPMA).
- Resources:** A section with a photo of a line graph and a list of links including 'March 6, 2018 Solicitation Workshop Presentation_SDG&E_SCG', 'Responses-Q&A-SDGE_SCG Solicitation Workshop 4.11.2018', and 'SDG&E 2017 EE Annual Report_Third-Party Program Contracts'.
- Upcoming Events:** A section with a photo of light bulbs and a link to '3rd Party Energy Efficiency Program Solicitations', which is circled with a red '3'.

I Don't Remember All of This Information!

4. Click “Program Solicitation Information”.



Program Solicitations Information ←

• [Program Solicitations Information](#)

5. Find “Third Party Work Paper Training.”



Program Solicitations Information Events

1. [Energy Efficiency Program Solicitations: Resources for Third Parties](#)

Event	Energy Efficiency Program Solicitations: Resources for Third Parties
Date/Time	Tuesday, January 1, 2019 12:00 AM
Location	Southern California Edison
Documents	Cost Effectiveness Tool (CET) Training Video 1 of 3 docs Cost Effectiveness Tool (CET) Training Input Measure Notes 2 of 3 docs Cost Effectiveness Tool (CET) Presentation 3 of 3 docs Third Party Work Paper Training Chapter 1 of 4 Third Party Work Paper Training Chapter 2 of 4 Third Party Work Paper Training Chapter 3 of 4 Third Party Work Paper Training Chapter 4 of 4 List of EE Third Party Contractors Implementers SCE 2017 Consolidated IOU Solicitation Timelines Updated 7.13.2018.xlsx

Questions



SCE TOU Period and Rate Changes

Beena Morar
August 10, 2018

Overview

- In March 2019, all non-residential customers will experience TOU and rate changes
- Regulatory Drivers:
 - 2016 Rate Design Window (approved)
 - 2018 General Rate Case-Phase II (pending)
- Key areas of change:
 - Revises TOU time periods
 - Expands Critical Peak Pricing (CPP)
 - Implements other rate changes





Customer Impact

All non-residential accounts will be impacted by these rate changes

- First time in 30 years customers will face a shift in TOU periods; 600,000 service accounts will experience new TOU periods and at least one additional rate change
- Massive increase in CPP default requirements; 330,000 service accounts will be impacted by the CPP program default (currently about 3,500 account are on program).

The market will need energy solutions as the non-res energy landscape changes*

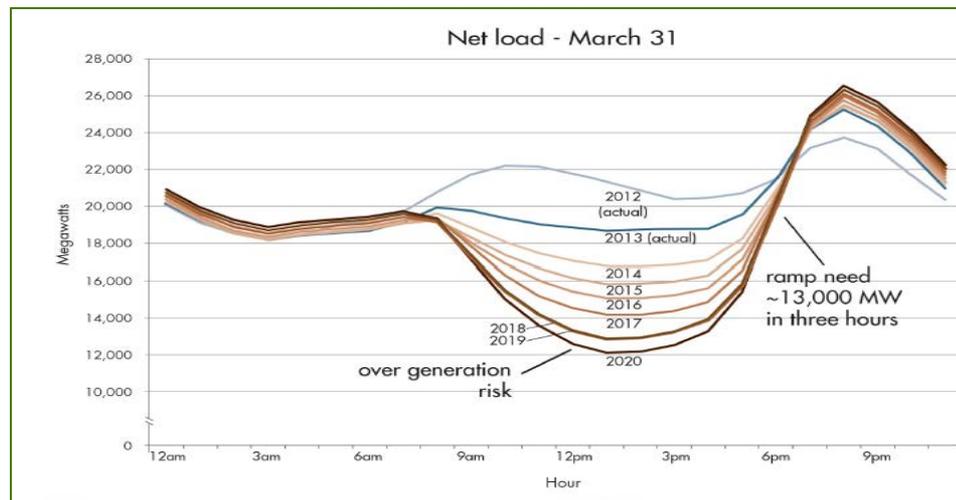
*New TOU will apply to residential customers beginning in 2020

New TOU Periods Reflect California's Changing Energy Market

Rates are changing to support grid needs

- Increased supply of solar in the afternoon (lowers traditional On-Peak hour prices)
- Increased demand in the early evening (increases traditional Off-Peak hour prices, compounded by more expensive generation resources used during these hours since solar is not available)
- The new rates will better align prices with the cost of energy

Forecast Net Load Pattern



TOU Periods



CPP events occur on weekdays; weekends and holidays are excluded.

- Shifts daily “peak” period to 4-9pm (currently noon to 6pm)
- Introduces “super off-peak” period from 8am-4pm on all winter days
- Introduces time-differentiated weekend charges
- Maintains existing seasonal definitions (Summer: June-Sept; Winter: Oct-May)

Note: New Time-of-Use (TOU) peak period applies to “standard” TOU rates defined as follows: TOU-8, TOU-GS-3, TOU-GS-2, TOU-GS-1, TOU-PA-3, & TOU-PA-2; CPP events occur on weekdays and will take place 12 times per year (more info next slide & DR presentation)

Expanding CPP

- More than half of non-residential accounts will default to Critical Peak Pricing (CPP)
- Many of these new accounts on CPP are small mom and pop businesses and ag customers, who may not have a sophisticated understanding of energy program, and/or may not currently be able to shift energy use to accommodate CPP events
- CPP Program Basics:
 - Event-based program (12 events/year) weekday summer non-holiday days
 - Receive notification one day before an event
 - Customers receive a discount if they reduce their energy use during events; if customers do not reduce load, they pay an overall higher rate during the event hours

Shifting Customer Needs For Demand-Side Management Programs

- Types of DSM programs that may especially helpful to customers:
 - Smart thermostats and other automated DR programs for lighting or HVAC
 - Behavioral tips, e.g., precooling
 - TOU period reminders
 - Storage
- Examples of sectors that could be interested in DR solutions:
 - Evening dependent businesses, e.g., food service, supermarkets, convenience stores, hotels, churches and other institutions with evening hours
 - Sectors that are currently load-shifting, e.g., ag pumping
 - Solar/storage combinations

Join at
slido.com
#A037

Lunch

Energy for What's AheadSM





SCE Demand Response Overview

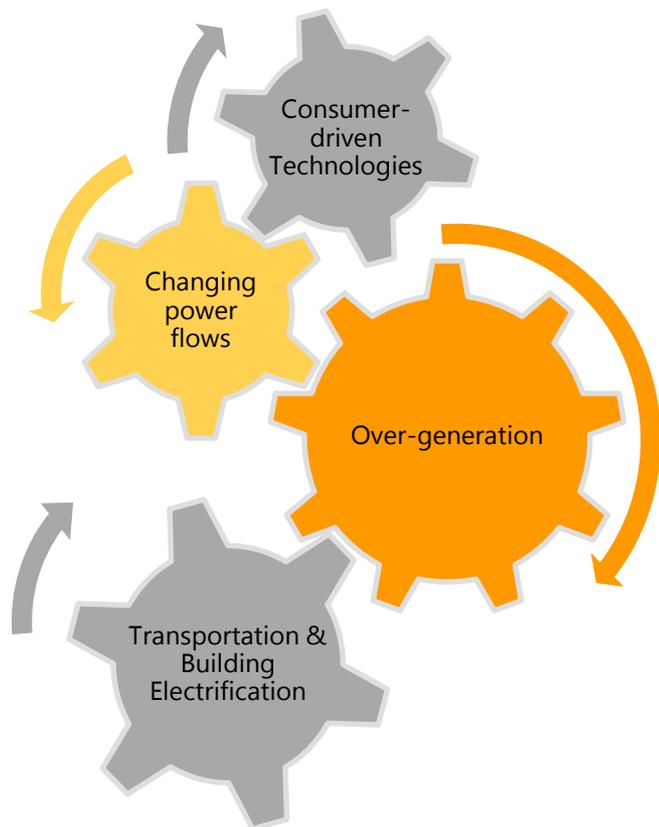
Third Party Solicitations and Integrated Demand Side Offerings

Today's Objective

- To provide an overview on SCE's existing Demand Response (DR) portfolio of programs and opportunities with Third Party Solicitations to support Integrated Demand Side Management Offerings.
 - Overview of DR Principles
 - Summary of DR Programs and Tariffs
 - ▶ Reliability vs. Price-Responsive
 - ▶ Integrated vs. Load Modifying
 - DR Enabling Technology Incentives and Requirements
 - ▶ What are they (AutoDR and IDSM)
 - ▶ Process/Requirements for incentives

The Changing Role of Demand Side Management

Increasing Grid Complexity



Evolving DSM Role

- Demand-side management (DSM) programs have historically been focused on system level benefits.
- Multiple use technology can support customers for upcoming rate changes, increase customers value proposition and reduce customer cost.
 - Load shifting DSM (e.g. pre-cooling, etc.) can be a valuable tool for addressing over-generation challenges and avoiding high cost hours.
 - Dispatchable DSM can be a valuable tool to help continuing meeting grid needs.
- Integrate Demand Side Management is challenging to coordinate and relay customer value with different requirements

SCE Demand Response (DR) Portfolio

- SCE offers a portfolio of DR programs which provide customers choices to pick a DR program that's right for them while earning capacity and/or energy incentives for their participation.
- DR provides value to SCE and our customers in four primary ways:
 1. Supporting and promoting clean energy goals and other public policy goals
 2. Supporting system and local area reliability
 3. Reducing system costs
 4. Providing customers with opportunities to better manage their energy usage and bills
- Today's discussion will focus on economic DR programs that may be eligible for technology incentives.

Today's SCE DR Portfolio

	Customer Type	CAISO Integration	SCE Rights	Resource Design
Base Interruptible Program	Large C&I	Yes	Capacity	Emergency interruptible load. Customer controlled.
Agricultural Pumping & Interruptible	Ag & Water Pumping	Yes	Capacity	Emergency interruptible load. Utility direct load control.
Summer Discount Plan Program	Residential and C&I	Yes	Capacity	Economic (price responsive) day-ahead energy and emergency interruptible load. Utility direct load control.
3rd Party DR Aggregator (CBP*, LCR, PRP)	C&I	Yes	Capacity & Energy	3 rd Party economic capacity and energy. Aggregator controlled. Traditional DR and storage-backed DR.
Smart Energy Program*	Residential	Yes	Capacity & Energy	Economic day-ahead energy and emergency. Utility indirect load control of thermostats.
Critical Peak Pricing*	Residential and C&I	No	Energy	Day-ahead forecasted system demand. Option under the TOU rate structure. Customer controlled.
Real Time Pricing*	C&I	No	Energy	Day-ahead forecasted temperatures. Nine different pricing schedules. Customer controlled.

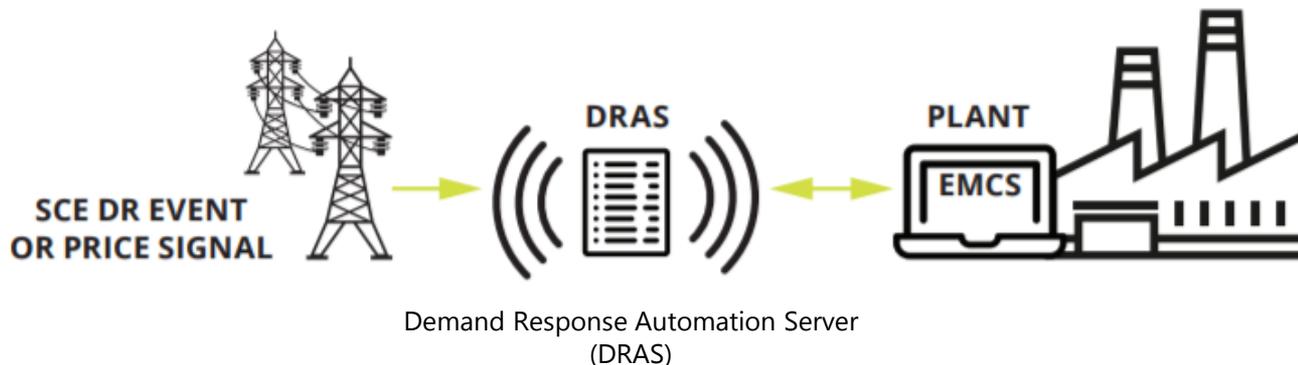
* Eligible for incentives from the DR Technology Incentive Programs.

Demand Response Auction Mechanism (DRAM) Pilot

	Statewide DRAM Pilot
Description	Series of one or multi-year capacity contracts to test feasibility of third party provider direct participation in CAISO wholesale market. SCE is purchasing resource adequacy (capacity). 3 rd Party DR providers (DRPs) bid energy directly into CAISO wholesale energy markets (day-ahead or real-time) with no IOU involvement.
Typical Customer	All customers are eligible but cannot be concurrently enrolled in an SCE DR program (no dual participation).
Customer Response Time	Not Applicable for SCE
Penalties	DRP responsible for any CAISO penalties
Dispatch Limits	Not Applicable for SCE
Availability	DRPs responsible for CAISO Rules for market participation (Must Offer Obligations and Availability Assessment Hours)

DR Enabling Technologies and Incentives

- **Definition of Auto DR controls:** Provides customers with the ability to receive an automated DR signals to enable a customer's participation in a demand response event without any manual customer intervention.
- SCE's DR Technology Incentive Programs provides incentives to help offset the cost of Auto DR controls through the following:
 - AutoDR Technology Incentives
 - Smart Thermostat Incentives
 - IDSM funding changes



Funding of Enabling Technologies

Demand Response Technology Incentive Programs (TIPs)*

Integrated Demand Side Management (IDSM)

Out of Scope

AutoDR TI ^[1]

Smart Thermostats ^[2]

Customized (Calculated)

- \$200/kW, capped at 75% of eligible costs
- Must have at least 30kW of load reduction
- Subject to onsite measurement & verification
- 60/40 incentive payment to **customer**
- 36-month DR program enrollment requirement

Express (Deemed)

- \$300/kW, capped at 100% of eligible costs; paid 100% upfront
- Only lighting & HVAC measures
- Only customers of certain sizes are eligible (**food stores, small office, and small retail**)
- 36-month DR program enrollment requirement

SEP/CPP

- Qualifying smart thermostats eligible
- Must register and enroll device with authorized vendor

DRAM

- Qualifying EE smart thermostats

NON-RESIDENTIAL

- Initial EE and DR integration efforts should be focused on HVAC and lighting measures.
- If IDSM funds are used to facilitate integration of DR into EE, customer must be enrolled in a DR program for at least 12-months, or 36-months if a calculated incentive.

RESIDENTIAL

- Facilitating automatic response to new time-varying rates, possibly involving customer education on the rates and thermostats.
- Funding can be used to test and deploy strategies in the residential sector.

GENERAL PRINCIPLES

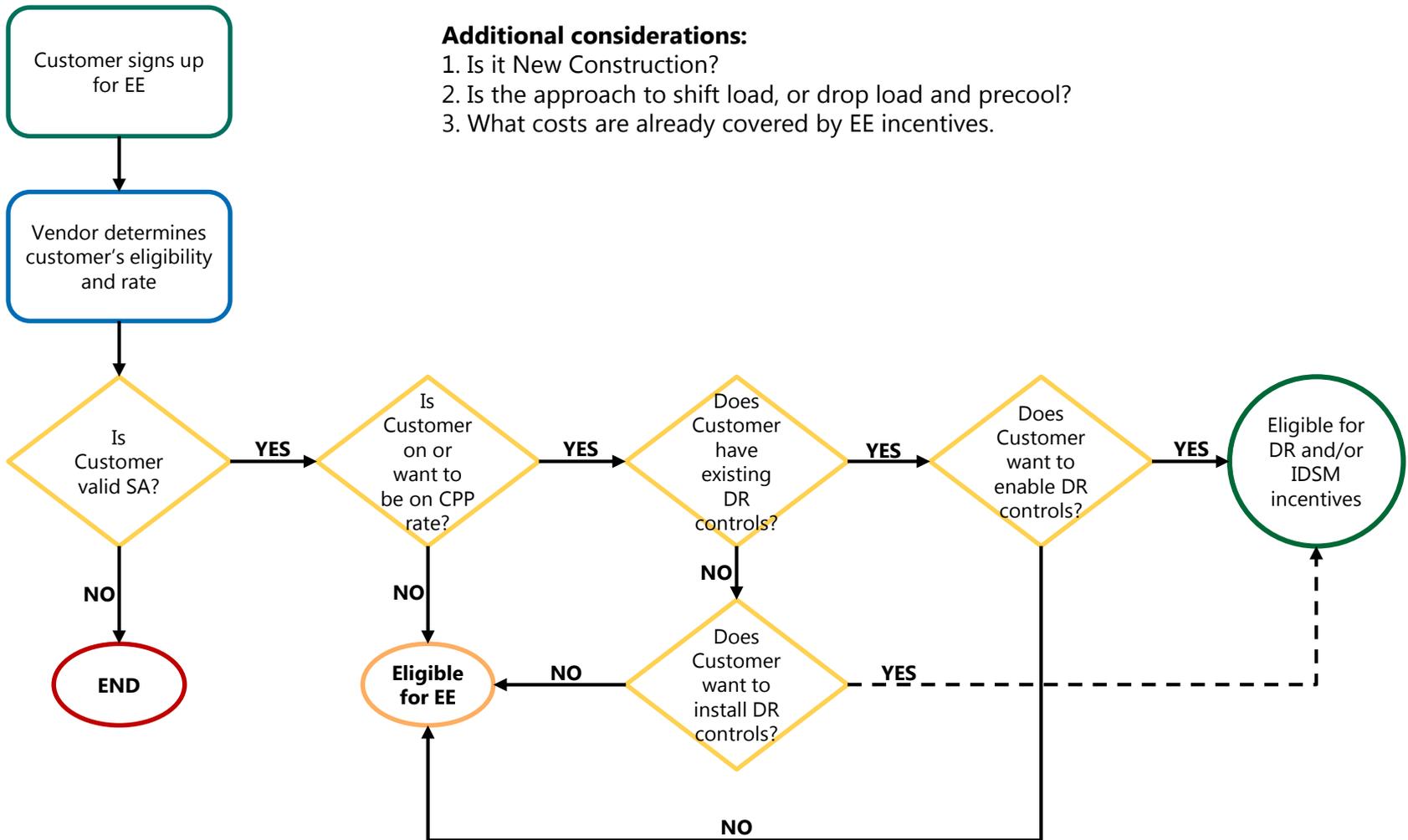
- Help customers save on their energy bill by shifting HVAC use away from peak pricing periods.
- Insure there is **no incremental measure or transaction cost** for a building to participate in a DR program after an EE retrofit **by installing automated and communicating demand response control technologies**
- Minimize duplication of outreach, marketing, site visits, etc.

- Energy efficiency costs (policy manual)
- Self-Generation Incentive Program (SGIP)
- Distributed Generation / Solar / Energy Storage
- Net Energy Metering (NEM)
- Other non-EE costs

[1] The AutoDR Technology Incentive (TI) Program is only available to non-residential customers.

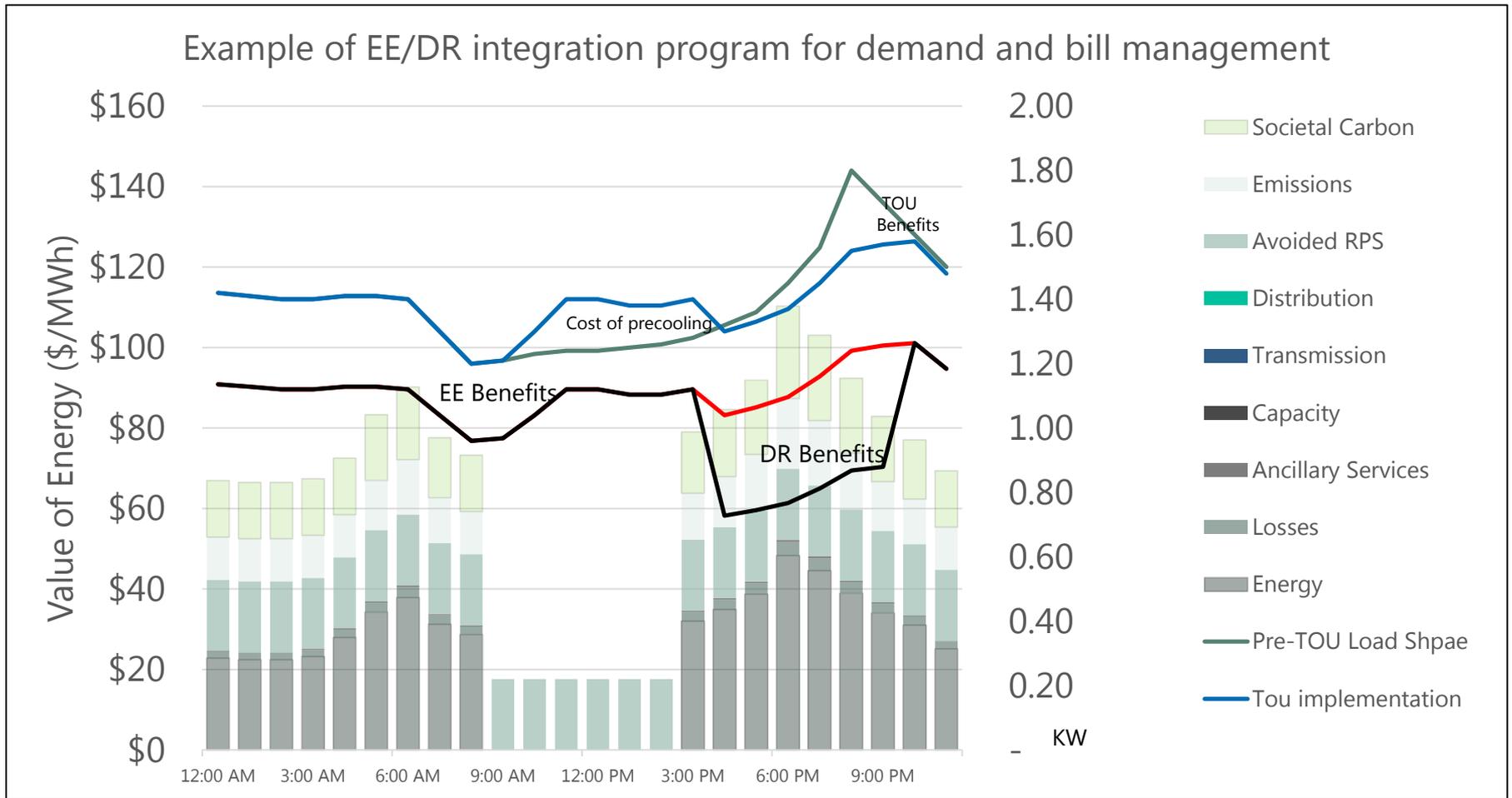
[2] SEP is only available to residential customers. CPP and DRAM are available to both residential and non-residential customers.

Illustration of an IDSM Project



Backup

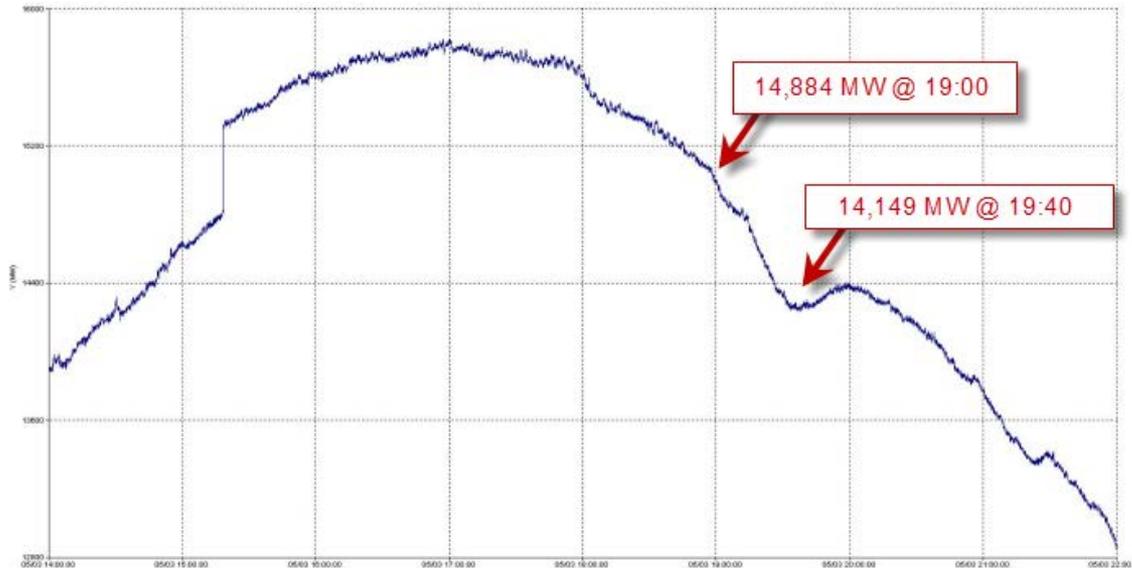
Illustrative Visual of ideal customer impacts for integrated offering



Demand Response Works!

May 3, 2017:

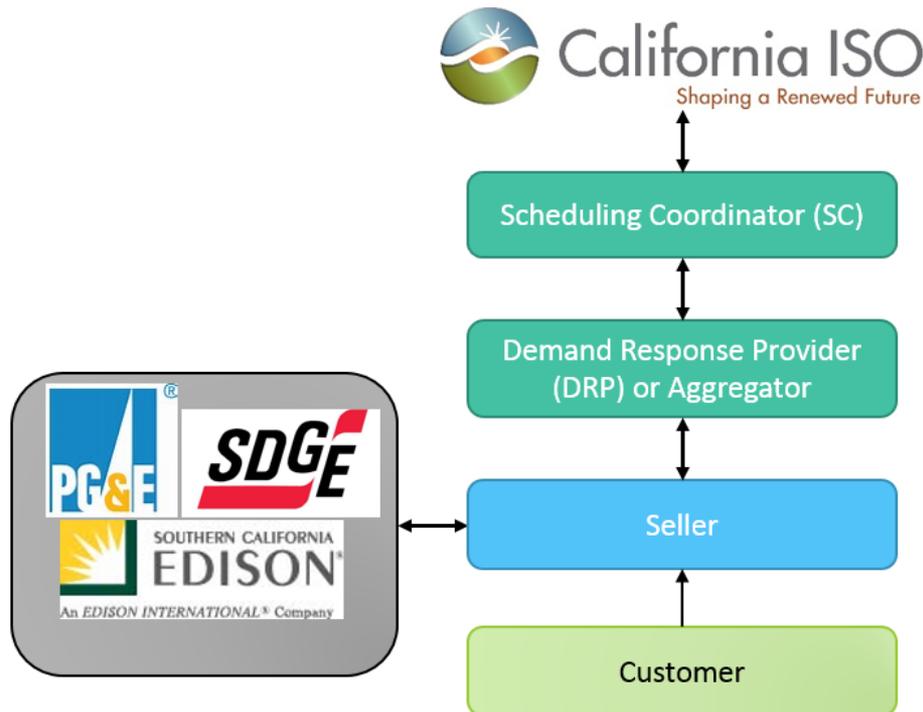
- CAISO declared a STAGE 1 Emergency due to high temperatures and loads across the entire area.
 - Actual Net Scheduled Interchange was below Day-Ahead schedules, forced generation outages, and declined HA market awarded supplemental energy on the interties were all contributing factors
- CAISO initiated a Reliability BIP, API, and SDP Dispatch for the entire SCE Service Territory. The dispatch was not issued through the CAISO market.
- Nearly 740 MW of SCE-managed demand response responded to system conditions



CONFIDENTIAL Protected Materials Pursuant to California Public Utilities Commission Decisions and Applicable Law. – Public Disclosure Restricted. Per SCE confidentiality declaration provided to the CPUC on January 8, 2016 for the SCE's Wholesale Market Integration of Utility Demand Response Progress Report of October 20, 2015.

DRAM Model

Direct Participation and Resource Adequacy Illustration



Third Party Direct Participation

- Seller aggregates customers for DRAM Resource
- Seller participates (bids) directly in the CAISO market through SC
- Dispatches and settlements are between CAISO and Seller's SC
- All earnings in CAISO markets go to Seller and Seller's customers; no IOU involvement

RA

- Seller provides Supply Plan to IOU roughly 60 days prior to month
- Seller provides demonstrated capacity through SC to IOU at end of the month



Cost Effectiveness Tool (CET) Update

Eric Lee
Economic Analysis & Reporting
August 8, 2018

Legal Disclaimer

SCE is providing this training as a courtesy for the benefit of our vendors and other interested stakeholders. SCE assumes no liability for any errors or for any conflict between the information presented here and the CPUC's processes or rules. The CPUC's rules and policies are subject to change at any time, and the CPUC's rules and policies, and interpretation thereof, will govern any submittals.

Training Summary

- This training is meant to build upon the previous training regarding Cost Effectiveness and the CET Desktop v.18.1.
- Previous training and documents can be found on PEPMA, under public events:
<https://www.pepma-ca.com/Public/PublicEvents.aspx?type=1>
- Will walk through registration and use of CEDARS for CET calculations with the assumption that the user is familiar with the CET Desktop.

TRC Refresher

- TRC is a ratio of benefits / costs
 - Ratio of 1.0 means that for every dollar spent, an equal amount of benefit is captured

$$\text{TRC} = \frac{(\text{Avoided Cost Benefits}) \times \text{NTG}}{(\text{NonIncentive Costs}) + (\text{Measure Costs}) \times \text{NTG} + (\text{Incentives}) \times (1-\text{NTG})}$$

- D.18-05-041, Decision Addressing Energy Efficiency Business Plans outlines how Program Administrators (PA) are gauged by the California Public Utilities Commission (CPUC).
 - Forecasted Portfolio of 1.25
 - Evaluated Portfolio of 1.00

CET Desktop Replaced by CEDARS

- SCE previously provided training based on the CET Desktop v.18.1 that was found on the CPUC website.
- Starting in 2019, the CET Desktop is no longer supported and cost effectiveness calculations will be performed within the California Energy Data and Reporting System (CEDARS) website.
- New avoided costs were approved by the CPUC for 2019.
 - *TRC benefits (on average) have decreased for the same amount of savings when compared against 2018 avoided costs.*
 - *Large factor is the cost decrease in natural gas and the increase in availability of solar.*
 - *SCE's forecasted measure mix for 2019 shows an approximate 12% decrease.*

CEDARS



- Website: <https://cedars.sound-data.com/>
- CPUC's reporting system that all program administrators (PAs) currently use for reporting of monthly, quarterly, and annual data submissions.
- Calculations are now done on the cloud and will no longer require a database to be downloaded/installed.
- All users will need to register in order to use the system.
- I will refer to the calculator on CEDARS as the CET UI (User Interface).

CEDARS Registration and Login



- On main page, "Register" on the top right corner.
- Fill out the form to request an account.
- **IMPORTANT:** Under "Affiliation" please select "**Community**"

Affiliation

 Request account

- You should receive a verification email and have the ability to log in once the email is verified.
- Will also receive a confirmation email after verification.

CET Usage

- Once logged onto the CEDARS system, users will see the CET button along the top of the website.



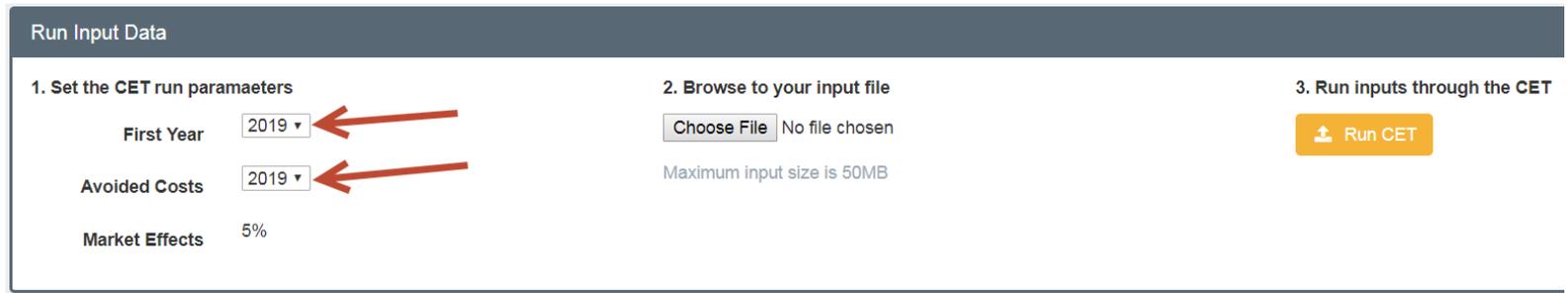
- On that page will also be a user guide, specification, a “Run CET” button.



- Each user has their own calculator and history.
 - Will not be able to see runs from other users.
 - IOUs will also not be able to see runs done by implementers within CEDARS

CET Usage

- The  button brings up the Run Input Data Screen:



Run Input Data

1. Set the CET run parameters

First Year

Avoided Costs

Market Effects

2. Browse to your input file

No file chosen

Maximum input size is 50MB

3. Run inputs through the CET

- Please set the parameters as shown for the runs.
 - First Year: 2019
 - Avoided Costs: 2019

- Upload the CET UI zip file and hit the  for CEDARS to begin its calculations.

CET UI Input Format

- The input format for the CET on CEDARS has changed.
- The CET Desktop accepted both Excel spreadsheet and Access database formats.
- The CET UI only accepts .csv files and must be in a .zip format.
- The individual tabs from the CET Desktop excel are now separate .csv files named Measure.csv and ProgramCost.csv.
 - InputMeasure tab = Measure.csv
 - InputProgram tab = ProgramCost.csv
 - .csv file names must be exact

CET UI Input Format (Continued)

- The column headings in the input have slightly changed.
- The validation and number of mandatory fields required have increased.

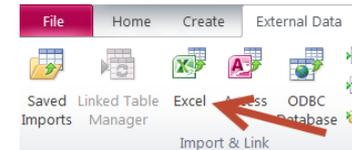


- CET Mapping file is included here to help assist in the transition.
- Mandatory fields have been highlighted in yellow.
- Increased validations is due to the need to have these fields for any submittals to the CPUC rather than only what is necessary to calculate cost-effectiveness.

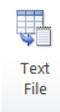
-  contains the valid inputs for many of the fields.

Creation of .csv Files

- SCE creates the .csv files using Access
- Import Excel spreadsheet into Access database



- Select First Row Contains Column Headings and No primary key. options

- Export as  and change file name to end in .csv

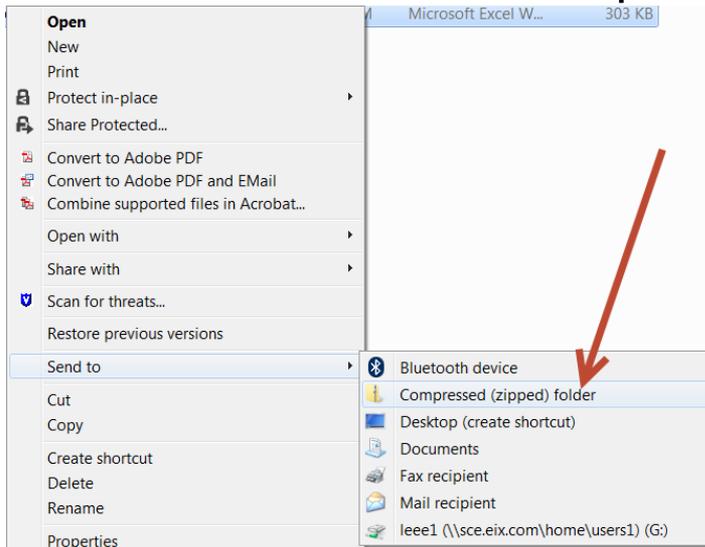
- Select Delimited - Characters such as comma or tab separate each field and



- Will need to be done twice, individually for ProgramCost.csv and Measure.csv

Remember to Zip

- Place both files into a .zip



- .zip file name does not matter
- .csv file names in zip folder must match

CEDARS Feedback

CET Upload History								
Job ID	Filename	Upload time (PST)	First Year	Avoided Cost	Validation	QC Feedback	CET Output	Summary
307	Round 4.5.zip	8 August, 2018, 11:30 a.m.	2019	2019	Completed	Download	Download	View
265	Testing.zip	31 July, 2018, 2:49 p.m.	2019	2019	Completed	Download	Download	View
264	Testing.zip	31 July, 2018, 2:43 p.m.	2019	2019	Rejected	Download	Not Applicable	View
263	Testing.zip	31 July, 2018, 2:41 p.m.	2019	2019	Rejected	Download	Not Applicable	View

- CEDARS will validate and if completed, will then calculate cost-effectiveness
 - Job ID 264 was rejected, CET Output is not available
 - Job ID 265 was completed, CET Output is available
- QC Feedback will give details as to which specific row(s) produced an error.
- Warning messages still allow for cost-effectiveness calculations.

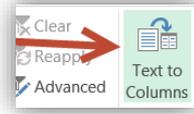
CET UI Output

- CET UI Output is also a .csv

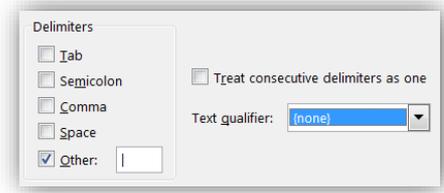
JobID	PA	PrgID	CET_ID	GrossKWh	GrossKW	GrossThm	NetKWh	NetKW	NetThm	LifecycleGrossKWh	LifecycleGrossThm	LifecycleNetKWh	LifecycleNetThm	GoalAttainmentKWh	GoalAttainmentKW	GoalAttainmentThm	FirstYearGrossKWh	FirstYearC	
234	SCE	SCE-13-L-002F	14.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
234	SCE	SCE-13-L-002F	20.00	19080	2.4804	0	12402	1.61226	0	286200	0	186030	0	19080	2.4804	0	19080	2.4804	0
234	SCE	SCE-13-L-002Q	62.00	292500	32.175	0	190125	20.91375	0	4387500	0	2851875	0	292500	32.175	0	190125	20.91375	0
234	SCE	SCE-13-L-003E	96.00	270000	0	0	243000	0	0	810000	0	729000	0	270000	0	0	270000	0	0

- Everything will be in the 1st column and at a measure level of detail.
 - Program and job level analysis are no longer supported in the CET UI.

- Highlight 1st column and use "Text to Columns" under Data tab.



- Select  and



- Pivot the data to perform program analysis if there are multiple programs in the same run.

CET UI Output Calculations

- $\text{FirstYearNetkWh (U)} = \text{Annual Net kWh}$
 - $\text{FirstYearNetkW (V)} = \text{Annual Net kW}$
 - $\text{FirstYearNetThm (W)} = \text{Annual Net Therms}$
 - $\text{ElecBen (Y)} = \text{Electric TRC Benefits}$
 - $\text{GasBen (Z)} = \text{Gas TRC Benefits}$
 - $\text{TRCCost (AC)} = \text{TRC Cost}$
 - $\text{TRC Ratio} = (\text{ElecBen} + \text{GasBen}) / \text{TRCCost}$
 - $\text{TotalExpenditures (CQ)} = \text{Total Budget} / \text{Expenditures}$
 - $\text{RebatesandIncents (BP)} = \text{Incentives}$
 - $\text{ProgramCosts (CP)} = \text{Program Costs (non-incentive)}$
- Budget/Expenditures

For the RFA, CET Calculations are Optional

- SCE has received feedback that the CET calculations are confusing.
- Latest update to use CET UI only adds to the complexity.
 - This is new to SCE as well, CET UI was available starting July 20, 2018.
- SCE TP EE Solicitations will require CET submissions (RFP)
 - Both the input and output sheets for the CET UI.
- Any CET submission in the RFA will not be scored, however the implementer will be given feedback and troubleshooting help.

Questions?

5-Minute Break

Energy for What's AheadSM



SCE EE Third Party Solicitation Bidder's Training Meter-Based Programs

August 10

Ehud Abadi – SCE Measurement & Evaluation

Introduction

- Normalized Metered Energy Consumption (NMEC)
 - Meter-Based M&V (mostly whole building)
 - Pay-for-Performance
 - Existing Conditions Baseline
- Distinguished avenue for measuring and claiming savings from Deemed and Customized
 - Savings estimates, payments, and claims happen after 1+ years of M&V
- Site by Site vs. Aggregate Population
- Does: “Better” savings estimates, realization, transparency, less risk with ratepayer money, real-time program feedback, measurement of BROs, etc.
 - NMEC paves the way for connecting DSM programs directly to grid and GHG impacts.
- Does Not: Disaggregate measure-by-measure kWh and EUL, Market Conditions

Third-Party Guidance

- Three major sections:
 - M&V
 - Calculation protocols, statistical rigor guidelines, the Math.
 - Programmatic Rules and Guidelines
 - CPUC final rules relevant to meter-based programs
 - Programmatic Best-Practices
 - CPUC Review and Evaluation (ex-ante/ex-post)
 - What does project review look like?
 - How is evaluation to be structured?

What we Have

- M&V: Single Building-level claiming and performance
 - Program M&V Guidance (CPUC: *Granderson*)
 - Building-level M&V Guidance (*Tsan/Jump - ET*)
- Program Rules and Guidance:
 - CPUC Documents and recent Proposed Ruling
 - PG&E Platform
- Project Review and Evaluation
 - CPUC Documents and recent Proposed Ruling
 - Commercial Whole Building Demo and NMEC Evaluability

SCE NMEC Savings Procedures Manual

- Emerging Technology project, partnership between SCE and kW Engineering
- Search “Normalized Metered Energy Consumption Savings Procedures Manual”
- Site-based guidance for M&V
 - Step-by-step procedures for meter-based M&V at the project level
 - Creation of site M&V Plan
 - Important considerations for building baseline models
 - Standards for data quality
 - Thresholds for modeling accuracy/error
- Process for Non-Routine Events and Adjustments

Baseline Model Acceptance Criteria

Criteria 1: NDBE < 0.005%

Criteria 2: CV(RMSE) < 25%

*Criteria 3: $\Delta E_{save} / E_{save} < 50\%$ at 68% confidence**

- Our current best guidance for implementers interested in P4P at site level.

CPUC Proposed Ruling and Comments

- In March 2018, ED Staff released a series of materials on NMEC: (Final due Q4 2018)
 - Rulebook
 - Program M&V
 - Custom Reporting Procedures
 - SEM M&V and Program Guides
- “Program and projects using normalized metered energy consumption to measure savings at a building, site or project level will be classified as Custom and will follow all established Custom Programs/Projects rules and requirements.”
- SCE Comment: Customized Calculated is geared at measure-level disaggregation. Whole Building Meter-Based programs by nature are not suited to this.
 - Require functioning equipment, and no new construction.
 - Don’t forget ex-post evaluation’s role in determining NTG and Cost-Effectiveness. Market Studies.

Program Proposal Cost-Effectiveness -CET

- CPUC Draft Ruling: Use weighted average Effective Useful Life method (unless staff adopts alternative method for calculation).
 - EUL's based on DEER, workpaper, or other Commission-adopted values
 - Average of EUL's weighted by the measures' expected savings
- Using existing conditions baseline? Full measure cost applies.
 - Full cost of equipment, labor, including installation for the measure(s).

Proposal Evaluation & Proposal Management Application (PEPMA)

PEPMA

A Statewide Web-based solution providing:

- Online work streams for uploading and accessing Abstracts, and all other solicitation related documents (e.g., schedule, bid conference presentations, bid questions and answers, addendums).
- Bidder access to Abstract & RFP documents and providing responses.
- Program Administrator (PA) Access to review proposals/responses for scoring activities.
- Historical archive for PA retrieval.

All bidders must register @ www.pepma-ca.com

PEPMA Home Page & Registration

PEPMA
PROPOSAL EVALUATION & PROPOSAL
MANAGEMENT APPLICATION

Home Contact Us FAQs

Welcome to PEPMA

California Statewide Investor Owned Utilities (IOU) and Energy Efficiency Solicitation Website

This site serves as a resource for:

- Individuals and organizations to learn about IOU energy efficiency programs
- Potential bidders to self-register their information
- Learning about upcoming energy efficiency contracting opportunities
- Exchange of bid information between individuals, organizations and IOUs
- Qualifying companies to provide required services to the IOUs

Participating IOUs

Southern California Edison Company
Southern California Gas Company
Pacific Gas and Electric Company
San Diego Gas & Electric Company

Contracting Opportunities

Click here to view available IOU contracting opportunities for both third party energy efficiency program work and professional services.

Go >>

Register Now

Click here to register with the Proposal Evaluation and Proposal Management Application (PEPMA). Once registered you will be eligible to participate in solicitations for upcoming contracting opportunities.

Go >>

Resources

March 6, 2018 Solicitation Workshop Presentation SDG&E SCG Responses-Q&A-SDGE SCG Solicitation Workshop 4.11.2018 SDG&E 2017 EE Annual Report Third-Party Program Contracts PEPMA User Instructions

More >>

Upcoming Events

3rd-Party Energy Efficiency Program Solicitations

Program Solicitations Information

More >>

Please Login or Register

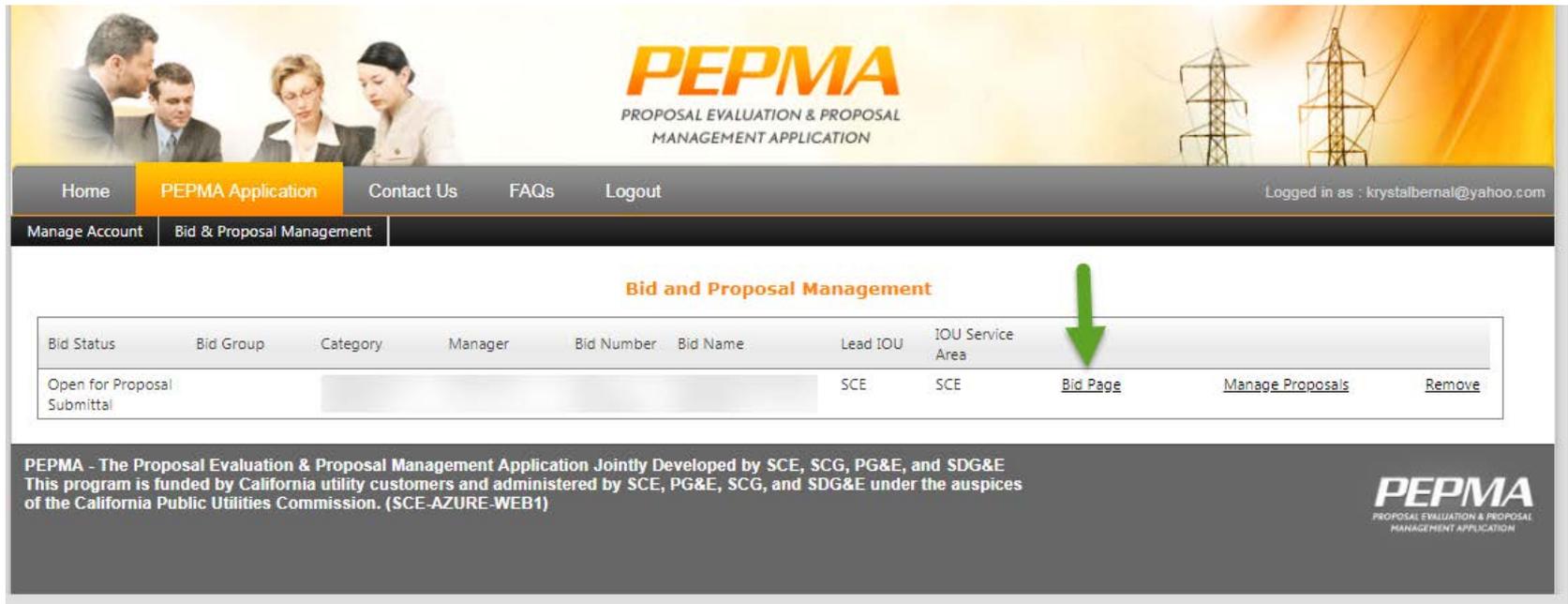
Username:
brandon.davis@sce.com
(Email Address)
Password:

Log In

[Forgot your password?](#)

New user? Register [here](#)

How to Retrieve Bid Documents



PEPMA
PROPOSAL EVALUATION & PROPOSAL
MANAGEMENT APPLICATION

Home | **PEPMA Application** | Contact Us | FAQs | Logout | Logged in as : krystalbernal@yahoo.com

Manage Account | Bid & Proposal Management

Bid and Proposal Management

Bid Status	Bid Group	Category	Manager	Bid Number	Bid Name	Lead IOU	IOU Service Area	
Open for Proposal Submittal						SCE	SCE	Bid Page Manage Proposals Remove

PEPMA - The Proposal Evaluation & Proposal Management Application Jointly Developed by SCE, SCG, PG&E, and SDG&E
This program is funded by California utility customers and administered by SCE, PG&E, SCG, and SDG&E under the auspices of the California Public Utilities Commission. (SCE-AZURE-WEB1)

PEPMA
PROPOSAL EVALUATION & PROPOSAL
MANAGEMENT APPLICATION

How to Retrieve Bid Documents Cont.

Bid Detail

Bid Number:

Lead IOU: SCE

Bid Name:

Bid Manager: Shelly Lac
(626) 302-0686
Shelly.Lac@sce.com

Category: Professional Services

Bid Group:

Schedule: [Download Schedule](#) 

Status: Open for Proposal Submittal

IOU Service Areas: SCE

Budget: n/a

Program Description:

Southern California Edison Company (SCE), designs, administers and implements a large portfolio of energy efficiency (EE) programs. SCE utilizes consultants to accomplish certain work or tasks related to the design, analysis, planning, and operation of these programs to serve all customers within their respective service territories.

SCE is interested in cost-effective energy-efficient and demand responsive solutions to help our customers save energy and money. These solutions are often investigated by SCE's Engineering services organization (Engineering Services) in response to queries from our customers, technical organizations, trade associations, and/or governmental agencies, and in support of many of SCE's EE and demand response (DR) programs and activities. The Work to be performed will support the Engineering Analysis and Support (EA&S); Codes Standards (C&S); Engineering Project Management (EPM); Emerging Products (EP); and Technology Test Centers (TTC) groups within Engineering Services.

Through this solicitation SCE will select one or more Bidders (who after entering into a contract with SCE shall be referred to as "Consultant(s)") to accomplish the Work on a purchase order (PO) basis.

The primary objective of this solicitation is to select one or more Consultants whose responsibilities to SCE will include, but not be limited to:

Message Center:
Q&A Document now available. Please click on the link below.

Quick Links:
[Services Q&A](#) 

No.	Filename
1	\svcs RFP.docx
2	Work Spec Pro Svcs 2018 v1.7 AS ZL SL Edits-eab.docx
3	MCSA 10-10-17 FINAL.docx
4	MCSA Exhibit 2 Energy Efficiency Programs.docx
5	Supplier Responsibility Programs.doc
6	DBE Commitment For 012216 - FINAL.docx
7	General Financial.docx
8	Complex Pricing Template.xls

How to Upload Documents



Home **PEPMA Application** Contact Us FAQs Logout Logged in as : krystalbernal@yahoo.com

Manage Account **Bid & Proposal Management**

Bid and Proposal Management

Bid Status	Bid Group	Category	Manager	Bid Number	Bid Name	Lead IOU	IOU Service Area			
Open for Proposal Submittal		Professional Services	Shelly Lac			SCE	SCE	Bid Page	Manage Proposals	Remove

PEPMA - The Proposal Evaluation & Proposal Management Application Jointly Developed by SCE, SCG, PG&E, and SDG&E. This program is funded by California utility customers and administered by SCE, PG&E, SCG, and SDG&E under the auspices of the California Public Utilities Commission. (SCE-AZURE-WEB2)



How to Upload Documents Cont.

The screenshot displays the PEPMA (Proposal Evaluation & Proposal Management Application) web interface. At the top, there is a navigation bar with links for Home, PEPMA Application (highlighted), Contact Us, FAQs, and Logout. The user is logged in as krystalbernal@yahoo.com. Below the navigation bar, there are tabs for Manage Account and Bid & Proposal Management. The main content area is titled 'Manage Proposals - [redacted]' and 'Bid No [redacted]'. A green arrow points to the 'Submit New Proposal' link in the top right corner of the main content area. The main content area contains the following text:

Proposals: [Submit New Proposal](#)

This page shows all of the proposals for the Bid. To edit or view a proposal in details, click the proposal name.

- To submit a proposal, click the Submit New Proposal link above.
- To submit multiple proposals, re-click the Submit New Proposal link for each proposal you want to upload.

There are no active proposals. To submit a new proposal click on the 'Submit New Proposal' link above.

[Return to Bid & Proposal Management](#)

At the bottom of the page, there is a footer with the following text:

PEPMA - The Proposal Evaluation & Proposal Management Application Jointly Developed by SCE, SCG, PG&E, and SDG&E
This program is funded by California utility customers and administered by SCE, PG&E, SCG, and SDG&E under the auspices of the California Public Utilities Commission. (SCE-AZURE-WEB2)

The PEPMA logo is also present in the bottom right corner of the footer.

How to Upload Documents Cont.

Submit Proposal - []

Proposal Information

Bid Name: []
Proposal Number: 217535
Proposal Name: []

Company & Primary Contact Information (To update details go to [Manage Account](#).)

Company Name: edison
Address: 1515 walnut grove
City: rosemead
State: ca
Office Phone: 6263020686
Fax: []
First Name: krystal
Last Name: stangeland
Email: brandon.davis@sce.com
Phone: 6263020686

All proposal documents must be uploaded by the close of bidding. Multiple documents can be uploaded one at a time.

Notes:

- It is recommended that large files be compressed as zip files. Do not upload Macintosh files.

Upload General Attachments here:
Choose File No file chosen

Upload Business Proposals here:
Choose File No file chosen

Upload Cost Proposals here:
Choose File No file chosen

Save Close

IOU PEPMA Contacts

Home

Pepma Application

Contact Us

FAQs

Logout

Logged in as : krystalbernal@yahoo.com

Contact Us



SCE Contact(s):

Contact name: David Gamache
Phone Number: 626-302-0680
Email: david.gamache@sce.com
Address: 1515 Walnut Grove Avenue, General Office 5 Rosemead CA 91770

Contact name: Shelly Lac
Phone Number: (626) 302-0686
Email: Shelly.Lac@sce.com
Address:

SCG Contact(s):

Contact name: Derrick Clifton
Phone Number: 213-244-8102
Email: DClifton@semprautilities.com
Address:

PGE Contact(s):

Contact name: Jennifer Price
Phone Number: (415) 973-0871
Email: J6PJ@pge.com
Address:

SDGE Contact(s):

Contact name: Jenny Hindmarsh
Phone Number: 858-654-8323
Email: jhindmarsh@semprautilities.com
Address:

Contact name: Laura Frazee
Phone Number: (858)650-4167
Email: lfrazee@semprautilities.com
Address:

Join at
slido.com
#A037

Closing

Don't forget to stay for the after-event Mixer

Energy for What's AheadSM

