NAVIGANT

# Market Based Incentives Workshop Summary Report

**Prepared for:**

**Southern California Edison**


CALMAC Study ID SCE0425.01

***Submitted by:***
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Reference No.: 184649
July 27, 2018

# TABLE OF CONTENTS

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# EXECUTIVE SUMMARY

Navigant Consulting, Inc. (Navigant) hosted a workshop on March 13, 2018, to inform the Market Based Incentives study. This report outlines the barriers and opportunities discussed by participants at the workshop and provides summary recommendations to inform the IOU's evaluation of incentive proposals.

For this study, market based incentives are defined as enhanced incentives (financial or non-financial) designed based on predefined market needs including customer, energy system, and/or regulatory needs. Situations that may qualify for these enhanced market-based incentives include locational/temporal conditions, AB802 below-code conditions, and other situations where increased energy efficiency helps accomplish broader California goals (e.g., SB350 GHG reductions).

The purpose of the workshop was to discuss what incentives customers may need to be offered – both monetary and non-monetary — in IOUs and third-party implementer (3P) programs to spur significant uptake in commercial and industrial (C&I) energy efficiency programs. The workshop considered three use cases: locational and/or temporal situations, NMEC or AB802 to-code and above-code situations, and high impact technologies or segments (i.e., measure-based programs). Navigant hosted the workshop with the California investor owned utilities (IOUs) and the California Energy Efficiency Demand Management Council (the Council). California IOUs, implementers, C&I customers, regulators and other stakeholders were invited to attend and participate in-person or by phone and webinar.

Workshop participants identified barriers and opportunities to improving participation in C&I energy efficiency (EE) programs. Overarching themes emerged, including the value of non-financial offerings and the importance of rebate timelines to customers. Appendix A provides the workshop attendees and Appendix B presents the workshop agenda. The workshop feedback documented in this report may provide value to the IOUs they solicit and evaluate proposals. Additional market research on nonresidential customer needs could improve the design and implementation of pay-for-performance programs.

# 1. WORKSHOP OVERVIEW

Navigant Consulting, Inc. (Navigant) hosted a workshop on March 13, 2018, to inform the Market Based Incentives (MBI) study. The purpose of the workshop was to discuss barriers, opportunities, and incentives – in the form of monetary and non-monetary incentives – that IOUs and 3P implementer programs can use to spur significant uptake in key C&I energy efficiency programs[1]. Table 1 summarizes the workshop objectives.

**Table 1. Market Based Incentives Workshop Objectives**

| | |
|---|---|
| **1. Overview of Stakeholder Perspectives** | Gather input from workshop participants on issues and potential enhancements to custom program incentive framework and policies to increase energy efficiency (EE) uptake |
| **2. Barriers to Market Based Incentives** | Identify key barriers and potential strategies to overcome barriers to enhanced incentives in several key situations |
| **3. Structure Customer Interviews** | Gather information to structure follow-on interviews with C&I building owners/customers about wants and needs to increase participation in custom EE programs |
| **4. C&I Customer Input** | Identify C&I customer or customer representative contacts who might be interested / willing to share their perspectives and insights related to market based incentives needs |

For this study, market based incentives are defined as enhanced incentives (financial or non-financial) designed based on predefined market needs including customer, energy system, and/or regulatory needs. Situations that may qualify for these enhanced market-based incentives include locational/temporal conditions, AB802 below-code conditions, and other situations where increased energy efficiency helps accomplish broader California goals (e.g., SB350 GHG reductions).

The workshop considered three use cases: locational and/or temporal situations, NMEC or AB802 to-code and above-code situations, and high impact technologies or segments (i.e., measure-based programs). Navigant hosted the workshop with the California investor owned utilities (IOUs) and the California Energy Efficiency Demand Management Council (the Council). California IOUs, implementers and C&I customers were invited to attend and participate in-person or by phone and webinar.

Appendix A provides the workshop attendees and Appendix B presents the workshop agenda.

[1] The workshop was organized as part of a larger study effort aimed at addressing the topic of market based incentives.

# 2. CROSS-CUTTING INCENTIVE THEMES

Overarching themes emerged throughout the workshop day, including the value of non-financial offerings and the importance of rebate timelines to customers. This section describes the cross-cutting barriers and opportunities identified by workshop participants that apply generally to C&I energy efficiency programs in California.

## 2.1 Barriers

This section describes the cross-cutting barriers identified in the MBI workshop throughout the day and including the breakout sessions.

### *A.1.1 Financial Incentive Limitations*

One of the key themes repeated throughout the workshop was that financial incentives alone cannot address barriers to adoption for energy efficiency programs. Participants explained that increased rebates have been tried in the past with unclear impacts. For example, one participant referenced to the Preferred Resources Pilot, which included efforts to pay higher incentives relative to SCE's broader EE programs. Unfortunately, the pilot was unsuccessful in achieving its target of achieving higher than average levels of EE program participation. Another participant mentioned an 'incentive kicker' offered by IOUs in 2013-2014 for a combination of EE measures, with unclear impacts. Varying rebates for specific situations can also be challenging for program design and forecasting rebate estimates. Also, it can be difficult to design programs if the avoided cost is unknown.

### *2.1.2 Complexity and Timeline*

One of the most significant barriers mentioned by workshop participants was the administrative burden and time required to participate in rebate programs due to measure and program complexity. Attendees agreed that customers often get frustrated with the time it takes to receive a rebate, since time is money. Simplifying and streamlining elements to participation would benefit the customer and could improve anticipation. The administrative burden for participation is high, which may deter a customer from following through with the rebate process. The regulatory and program administration aspects are significant and ultimately impact the customer in terms of project timelines.

## 2.2 Opportunities

This section describes the cross-cutting opportunities identified in the MBI workshop, including streamlining the rebate process and tailoring financial and non-financial incentives to meet customer needs.

### *2.2.1 Rebate Process*

Participants suggested that program administrators consider opportunities for reducing administrative burden and program complexity, to improve project participation timelines and streamline participation. It was also mentioned that customers have fiscal planning timelines that implementers should consider when timing their outreach and working with customers on energy efficiency plans.

### *2.2.2 Program Flexibility*

Workshop attendees recommended tailoring program offerings and identifying high-value measures for different customer types. A program offering paradigm that allows for implementer creativity and flexibility can help create flexible programs that address specific customer needs.

### *2.2.3 Customer Engagement*

Workshop participants stressed that non-financial incentives can be more important than the actual rebate amount. Non-financial support can include providing expertise and technical assistance to engage with the true decision makers by providing end-to-end EE-related support for the customer. Non-financial offerings can be critical since customers often perceive the rebate amount to be small. Additionally, customers may consider time as a factor that is just as important as money.

# 3. LOCATIONAL AND TEMPORAL INCENTIVE DESIGN

This section describes the barriers and opportunities identified by workshop participants that apply to incentive design for locational and temporal situations, which are defined as follows:

- **Locational Situations**: Where typical grid based avoided costs are higher than traditional EE statewide portfolio avoided costs
- **Temporal Situations**: Where meeting steep peaks hour(s) ramp rates typically produce avoided costs (at those times) higher than typical EE portfolio avoided costs

## 3.1 Background

With the passing of Senate Bill (SB) 350 and SB 32, California has committed to reducing greenhouse gas emissions by 40% below 1990 levels by 2030, increase the state's electricity renewable portfolio standard (RPS) to 50% by 2030, and double efficiency relative to current levels. Historically, California's energy efficiency initiatives have primarily focused on reducing energy from a statewide perspective, but with this increased renewable energy penetration, there may be grid concerns related to supply reliability, faster ramp rates, and at greater peak demands. To address these grid concerns, more emphasis has been placed on reducing energy and demand on specific constrained feeders or at peak ramp periods. The workshop attendees discussed the barriers and opportunities for targeted EE measures to help address these temporal and locational grid issues.

## 3.2 Barriers

This section describes the key barriers identified in the locational and temporal situations breakout, including difficulty in utility planning due to flexible incentive framework, non-compliance with traditional regulatory frameworks and funding streams, misalignment in EE's ability to significantly contribute to grid needs, and confusion and mistrust of more complex programs.

### *3.2.1 Utility Planning & Regulatory*

Since customer demographics and capacity constrained areas are constantly changing, varying rebates by location and at specific time intervals can be challenging for utilities and third-party implementers to design programs and accurately forecast measure impacts and participant incentive levels. One participant mentioned that targeting specific locations and times changes the utility investment and revenue structure. Additionally, since the rebate pool for utility efficiency programs is fixed, there is concern that changing the payment structure might inadvertently cause previously cost-effective measures to no longer be cost-effective and vice versa.

Attendees also brought up that current time of use (TOU) rates do not align with periods of localized peak loads and ramping loads, significantly reducing the value proposition to reduce loads during these peak periods.

### *3.2.2 Misalignment Between Efficiency Needs, Grid Needs, and Funding Streams*

Within the breakout discussion, a key barrier that was continuously mentioned was that the state's funding streams for energy efficiency are separated from the funding stream for grid needs initiatives (e.g. distributed generation, demand response) and that energy efficiency measures alone do not have the

capacity to drive meaningful change for demand reduction. Because commercial loads often do not align with peak ramp periods, the breakout discussion had difficulty identifying commercial energy efficiency measures that could significantly reduce the demand during these peak ramp periods. For example, phase change materials and ice storage can provide excellent load shifting opportunities as commercial HVAC systems are ramping down and the grid is peaking, but these technologies are not pure efficiency measures. Energy efficiency funding streams will have to be combined with other distributed energy resource (DER) measure types such as storage to have a substantial demand reduction impact at desired locations and times.

Historically, Request for Offers (RFOs) primarily targeted solutions for energy efficiency reductions. Workshop attendees suggested that future RFOs should be more flexible and target more innovative program designs that provide solutions for both energy efficiency reductions and grid needs.

### *3.2.3 Customer Issues – Confusion and Fairness*

The breakout session group noted that customer confusion around existing energy efficiency programs is already a barrier to program participation and with the addition of more complex measure, such as targeting specific feeders or times of day, customer confusion will likely increase. Additionally, customers may not understand why certain participants are paid more to participate in these targeted energy efficiency programs. They may become discouraged to learn other program participants potentially receive a higher rebate for the same program.

## 3.3 Opportunities

This section describes the key opportunities identified in the locational and temporal situations breakout, including opportunities to communicate to the customer their impact on grid reliability (i.e. less blackouts), continue uptake of energy efficiency measures through a new continuous program model, and value stack energy efficiency with DER measures for improved cost-effectiveness and additional grid benefits.

### *3.3.1 Customer Engagement*

The working group noted that while targeting energy efficiency measures and specific customers for temporal and locational benefits may cause more program confusion, there exists an opportunity to communicate to customers that their participation will help lead to improved electricity reliability (i.e. fewer blackouts). While C&I customers may be agnostic to high level grid needs, they may be more incentivized to enroll in programs if their electricity reliability is significantly improved, particularly on feeders that are more prone to blackouts.

Traditional energy efficiency measures often are offered on a one-time engagement in which a customer installs a widget or performs an operation upgrade and receives a rebate or incentive. The working group discussed the opportunity to change this one-time engagement model to a “subscription model” in which technical experts can continuously engage with customers year after year to improve the customer experience and help them install a series of measures that have grid benefits. For example, program implementers can explain potentially confusing topics like bill management or TOU rates, and can drive further measure adoptions. While this subscription model has cross-cutting benefits (i.e. non-temporal and locational), the working group acknowledged that this model type could significantly improve the adoption of the confusing measures with grid benefits. The working group acknowledged that utilities could even offer additional incentives to third party implementers who offer continued engagement

programs (e.g. Energy Management Systems could be a gateway technology for continued customer engagement).

### *3.3.2 Improve Program & Design Simplicity and Flexibility*

As previously noted, the locational and temporal engagement strategies need be designed with flexibility in mind to keep up with the constantly changing customer demographics within individual feeders and varied grid constraints. Workshop attendees noted that a more simplified approach to program delivery might overcome many of these locational barriers. Rather than having a complicated incentive structure that is dependent on how constrained a feeder is, program implementers might take a more simplified approach. For example, they might offer only two incentive buckets: increased incentives (increased rebates, tech assistance, etc.) for constrained feeders and lower incentives for non-constrained feeders.

To address current misalignment between EE and grid goals and funding streams, EE programs should target solutions that increase the overall program cost-effectiveness by value stacking EE measures with other DERs. For example, in the case of temporal EE programs, this multi-prong funding approach could utilize funding sources from capacity funding programs, GHG reduction efforts, T&D deferral initiatives.

Historically, Request for Offers (RFOs) primarily targeted solutions for energy efficiency reductions. Workshop attendees suggested that future RFOs should be more flexible and target more innovative program designs that provide solutions for both energy efficiency reductions and grid needs.

# 4. AB802 AND NMEC INCENTIVE DESIGN

This section describes the barriers and opportunities identified by workshop participants that apply to incentive design for AB802 and NMEC situations, which are defined as follows:

- **AB802 Situations**: Where below-code or stranded savings allow for varied incentives aimed at achieving savings from existing conditions to code or from existing conditions to the highest efficiency levels.
- **NMEC Situations**: Where NMEC payment schedules and incentive approaches present a variety of barriers that will affect C&I customer acceptance levels.

## 4.1 Background

Historically, Program Administrators (PAs) have rebated and claimed energy savings that meet above code requirements. Recent passage of California Assembly Bill 802 (AB802) AB802 allows existing baseline for all applicable measures and authorizes IOUs to rebate and claim all energy savings (including those that are below-code/ stranded savings. Below-code / stranded savings are below-code savings that are not materializing in the market yet because of lack of customer incentive to upgrade their existing equipment given prior incentives policies. Under AB802, PAs could start offering rebates for bringing existing equipment up to code. Decision 16-08-019 establishes eligible sectors under AB802.

California Assembly Bill 802 (AB802) also enables use of normalized metered energy consumption (NMEC) evaluation methods as a measure of savings. AB802 “authorize(s) electrical corporations or gas corporations to provide financial incentives, rebates, technical assistance, and support to their customers to increase the energy efficiency of existing buildings based on all estimated energy savings, and energy usage reductions, taking into consideration the overall reduction in normalized metered energy consumption as a measure of energy savings”. The HOPPs ruling focuses on opportunities afforded by AB 802’s savings calculation requirements for normalized metered energy consumption, which allows otherwise stranded savings potential through whole-building interventions in public sector. SB 350 also links incentives to the measured energy savings.

## 4.2 Barriers

This section describes the key barriers that were identified in the AB802 and NMEC breakout sessions, including program complexity and several risks associated with the program implementation.

### *4.2.1 Program complexity*

At the time of the workshop, the CPUC had not posted NMEC guidelines and therefore, there was a lot of uncertainty around the NMEC concept as to how it would be governed and implemented. Workshop participants noted that these programs are complex and it will be difficult to communicate to customers how NMEC and AB802 are advantageous over standard practices (ISP). Customers are not too concerned about the below-code or metered savings. If NMEC payment happens ex post and the customer doesn’t get paid for the 2 years, the customers are not really incentivized to do anything.

### *4.2.2 Risks*

Workshop participants acknowledged that NMEC program implementation involves several risks. Implementers find these programs risky since there are not enough savings to cover the capital cost. It is difficult to prove causation between efficient measures and lowered meter savings. Utilities have to wait for about 12 months to verify the savings. There is a potential for customer fatigue if too many implementers compete or operate in this landscape.

## 4.3 Opportunities

This section describes the key opportunities that were identified in the AB802 and NMEC breakout sessions including increased program uptake, reduced administration burden and improved customer's experience.

### *4.3.1 Increased Program Uptake*

There is an opportunity to increase the uptake of programs. In general, the breakout session participants agreed that customers can easily go beyond code and receive a higher rebate. Engaging the customers early on and more frequently will increase projects in the pipeline. Ability to apply NMEC guidelines to individual measures or to whole home upgrades could open programs to more participants. Workshop participants agreed that recent requirement for 3rd party implementation (60% of programs) opens opportunity for NMEC pathway making it more attractive for implementers.

NMEC allows for a varied measure baseline and therefore may help capture the stranded potential. There is an opportunity to increase financial incentives to go from below code to code. There is no need to increase the financial incentives from code to above code since it is already saturated market. This approach might be cost-effective at a portfolio level.

### *4.3.2 Reduced Administration Burden*

Participants noted that NMEC eliminates need to pre-qualify projects. This would reduce the project timelines, thereby reducing the administration burden.

### *4.3.3 Improved Customer's Experience*

Workshop participants advocated that implementers should take on more of the program risk to simplify customer's overall program experience and increase program participation. E.g. generally, customers have to wait up to a year for the verification of savings in order to receive their incentives. Implementers might pay a part of savings upfront (increased risk for the implementers as these savings have not been verified yet) to improve the customers experience. The remaining incentives can be determined via NMEC. There was a general agreement that NMEC is a good approach to improve program's cost-effectiveness by accounting for additional below code savings.

# 5. MEASURE-BASED INCENTIVE DESIGN

This section describes the barriers and opportunities identified by workshop participants that apply to incentive design for measure-based situations, where important measures (e.g., measures with great greenhouse gas reduction potential) show a gap between their economic and market potential.

## 5.1 Background

The CPUC periodically develops energy and demand savings potential for California's major investor-owned utilities (IOUs), for the purpose of establishing IOU goals. However, the market response for some measures and/or key sectors may not be meeting the market potential. That is, a gap may exist between the economic potential and market potential for measures/sectors that may significantly support SB350 greenhouse gas and energy efficiency goals. Barriers may exist that prevent uptake for specific measures and sectors, and therefore, monetary and non-monetary incentives may help to increase uptake for these measures and sectors.

The breakout session began by exploring the measures and/or sectors where participation is not meeting energy efficiency potential or desired uptake. Some participants in the group questioned how program administrators and implementers could identify and price high-value versus low-value measures when the pool of funds for financial incentives is fixed. The majority of the breakout discussion focused on the barriers, regulatory factors, and other issues that more broadly influence the adoption of measures not meeting their energy efficiency potential.

## 5.2 Barriers

This section describes the key barriers that were identified in the measure-based Incentives breakout, including timing of incentives and a lack of focus on customer needs and priorities.

### *5.2.1 Incentive Amount Versus Timing*

Workshop participants believe there is a mismatch between utility priorities and those of their customers. For example, in the triangle of cost/quality/speed, utilities may prioritize accuracy and quality through the rebate process, while customers may prefer speed, even over cost (i.e., the incentive). In this case, there may be an opportunity to streamline the rebate process or offer a fast-track option with a reduced financial incentive.

### *5.2.2 Customer Needs and Priorities*

Better understanding customer needs and priorities can help to increase participation and energy savings. Workshop participants shared opinions that program administrators and implementers need to better understand their target markets to identify and recommend the right measures for the right customers. In addition, implementers need better information about the customer's organization, such as who in the organization is informed, to what extent are they informed, and ultimately, who is the decision maker and what information do they need to make a decision. The ultimate decision maker may not be the individual that is directly interfacing with the utility representative, however. These issues are exacerbated by the split incentives barrier that exists between tenants and landlords.

In general, participants agree that customers are often confused about how energy efficiency can save them money. They believe that customers are often still unaware that utility programs subsidize efficiency upgrades.

There is opportunity to re-design incentive payments to better align with customer needs. The breakout session participants discussed that incentive payments are currently optimized with respect to cost-effectiveness and net-to-gross (NTG), but that incentives should be more flexible and optimized to customer needs such as their investment/portfolio goals. In some cases, a customer may prefer non-financial incentives and there should be flexibility to optimize the offering to better meet these customers' needs.

### *5.2.3 Program Uncertainty & Complexity*

The workshop participants in this breakout noted that program uncertainty and complexity is a key barrier to customer uptake for energy efficiency measures.

## 5.3 Opportunities

This section describes the opportunities that were suggested in the measure-based incentives breakout, which focused on providing more flexibility in the incentive to focus on customer needs and priorities.

### *5.3.1 Provide Flexibility to Implementers*

In general, the breakout session participants agreed that it would be beneficial to provide increased flexibility to implementers so they can tailor incentive packages to better meet customer needs. For example, an implementer may want to incorporate a 'loss-leader' measure to maintain its customer base and there should be some flexibility for them to do so. Cost effectiveness was mentioned as a concern here, however.

### *5.3.2 Focus on Customer Priorities*

Aligning incentives with customer priorities can increase participation for energy efficiency, sometimes without financial incentives. For example, one participant mentioned that control-based measures simply require providing customers with guidance and technical expertise, not incentives. On the other hand, capital equipment is an example where the financial incentive helps resolve the up-front incremental cost barrier. In many cases, technical assistance, education, and turnkey solution offerings that increase payment speed can provide customer value beyond the monetary value of the incentive payment.

## 6. RECOMMENDATIONS

Market research is valuable to energy efficiency programs. Feedback from the MBI workshop demonstrates the importance of understanding customer perspectives, priorities, and needs and the value of using this information by programs. As California moves towards more pay-for-performance program models and a higher reliance on third-party program implementation, nonresidential market studies are essential to inform many areas of program design and planning (including identifying the optimal incentive levels that will drive higher program participation rates, leading to more successful energy efficiency outcomes.

Additional market research and nonresidential customer needs assessment are warranted. Specific examples might include:

- Market and segment baseline studies
- Equipment saturation surveys
- Customer attitude and market barrier studies
- Benchmarking studies of customer incentives and market transformation initiatives

# APPENDIX A. MBI WORKSHOP ATTENDEES

**Table A-1. MBI Workshop: In-person Attendees**

| Company | First Name | Last Name | Title | Attended? |
|---|---|---|---|---|
| | Al | Lutz | - | Yes |
| UC Berkeley / Facility Services | Bruce | Chamberlain | Campus Energy Manager | Yes |
| PG&E | Caroline | Massad Francis | Senior Strategic Analyst | Yes |
| Lockheed Martin | David | Bruder | Business Development Manager | Yes |
| Energy Resources Integration, LLC | Eric | Noller | Principal | Yes |
| Navigant | Greg | Wikler | - | Yes |
| PG&E | Halley | Fitzpatrick | Principal Policy Analyst | Yes |
| Navigant | Jay | Luboff | - | Yes |
| Enovity | Jeff | Guild | Director | Yes |
| Ecology Action | Josiah | Adams | Director | Yes |
| Franklin Energy | Ken | Williams | Director - CA Client Solutions | Yes |
| The Council | Kira | Kimick | Marketing Manager | Yes |
| Small Business Utility Advocates | Lillian | Rafii | Regulatory Attorney | Yes |
| Navigant Consulting Inc | Lucas | Schroyer | | Yes |
| The Energy Coalition | Marc | Costa | Policy & Regulatory Manager | Yes |
| The Council | Michelle | Vigen | Sr. Policy Manager | Yes |
| Energy Solutions | Pamela | Molsick | Senior PM | Yes |
| CPUC | Alexander | Cole | | |
| TRC | Carmen | Henrikson | AVP | |
| Engie Services | Charles | Allured | Business Development | |
| CPUC | Christina | Torok | Regulatory Analyst | |
| SF Environment | Claudia | Espino | Energy Efficiency Coordinator | |
| Kenwood Energy | Clay | Lewis | VP | |
| PG&E | Harry | Charalambides | Manager, Commercial EE Programs | |
| Lawrence Berkeley National Laboratory | Hiroshi | Irie | Visiting Researcher | |
| | Jeanne | Clinton | Sustainable Strategies Consultant | |

| Company | First Name | Last Name | Title | Attended? |
|---|---|---|---|---|
| Commercial Energy of California | Jens | Hansen | Sales Manager | |
| Newcomb Anderson McCormick | Jonathon | Stage | Director | |
| ICF | Mabell | Paine | Principal | |
| CPUC | Masoud | Foudeh | | |
| ENGIE Services U.S. | Max | Brodin | Procurement Manager | |
| Arup | Meg | Waltner | Senior Consultant | |
| Alcantar & Kahl LLP | Michael | Alcantar | Attorney | |
| New Solar Inc. | Porter | Wong | Director | |
| SF Department of the Environment | Rina | Lopez | Energy Engineer | |
| Commercial Energy of California | Ron | Perry | CEO | |
| AESC, Inc. | Sarah | Sturdy | Program Manager | |
| BITS Limited | Scott | Wilson | | |
| DNV-GL | Teresa | Davies | | |

**Table A-2. MBI Workshop: Webinar Attendees**

| Company | First Name | Last Name | Title | Participated? |
|---|---|---|---|---|
| TURN | Cynthia | Mitchell | Consultant | Yes |
| Southern California Edison | Derek | Okada | Senior Manager | Yes |
| SCE | Reggie | Wilkins | - | Yes |
| ENGIE Services US | Aaron | Panzer | Director of Client Solutions | Yes |
| Frontier Energy | Adam | Walburger | Vice President, BREC | Yes |
| CA Energy Commission | Aida | Escala | Superviisor | Yes |
| 2050 Partners | Alex | Chase | Principal | Yes |
| The Energy Coalition | Alex | Ricklefs | Project Manager | Yes |
| Greenbank Associates | Alice | Sung | Principal | Yes |
| Mendo-Lake Energy Watch | Amy | Sanchez | Project Specialist | Yes |
| West Monroe Partners | Andrew | Dillon | Senior Principal | Yes |
| Willdan Energy Solutions | Andrew | Jurado | Program Manager | Yes |
| Newcomb Anderson McCormick | Ann | McCormick | Principal | Yes |
| InTech Energy, Inc | Ashish | Goel | President | Yes |
| Engie Services US | Barbara | Ayotte | Channel Partner Director | Yes |
| SynergyNexGen | Barbara | Hernesman | Workforce Strategist | Yes |
| Siemens Energy | Benjamin | Beaver | Regional Sales Mgr | Yes |
| APTIM | Claire | FitzGerald | PM | Yes |

| Company | First Name | Last Name | Title | Participated? |
|---|---|---|---|---|
| Resource Innovations | Corey | Grace | Director | Yes |
| Willdan | Craig | Owens | Director | Yes |
| SCE | Damaris | Garcia | Advisor | Yes |
| Douglass & Liddell | Daniel | Douglass | Principal | Yes |
| AEG | David | Lineweber | | Yes |
| JouleSmart Solutions | Dennis | Quinn | President | Yes |
| Don Arambula Consulting | Don | Arambula | Consultant | Yes |
| Willdan | Emily | Fisher | Program Manager | Yes |
| UCOP | Eric | Eberhardt | Director Energy Services | Yes |
| Willdan | Eric | Woychik | SVP | Yes |
| SCE | Galib | Rustamov | Advisor | Yes |
| REDtrac LLC | Greg | Allen | VP | Yes |
| PG&E | Haretha | Alao | Expert Analyst | Yes |
| Office of Ratepayer Advocates | Henry | Burton | Public Utilities Regulatory Analyst | Yes |
| Engie Services U.S. | Ian | Guerry | Vice President, Market Development | Yes |
| InTech Energy, Inc | Jake | Wise | Director | Yes |
| CLEAResult | James | Russell | Portfolio Manager | Yes |
| AESC, Inc. | Jeff | Seto | Senior Manager | Yes |
| CoolGreenPower LLC | Jill | Appel | Principal | Yes |
| CLEAResult | Joanne | O'Neill | Director | Yes |
| California League of Food Producers | John | Larrea | Director, Governmental Affairs | Yes |
| CLEAResult | Josh | Tiernan | Program Manager | Yes |
| CPUC | Kay | Hardy | - | Yes |
| SCE | Kim | Nguyen | Contract Manager | Yes |
| SoCalGas | Leticia | Ayala | Sr Customer Programs Advisor | Yes |
| Ecology Action | Mahlon | Aldridge | vp | Yes |
| NRG Curtailment Solutions | Malcolm | Ainspan | Regulatory Economist | Yes |
| SoCalGas | Marisa | Rojas | Program Advisor | Yes |
| SoCalGas | Mark | Huerta | Program Advisor | Yes |
| Lockheed Martin Energy | Matt | Smizer | Project Engineer | Yes |
| The Council | Melanie | Gillette | Sr. Policy Director | Yes |
| NMR Group | Michael | Strom | | Yes |
| Frontier Energy | Nancy | Barba | Sr Program Manager | Yes |
| Correlate, Inc. | Nathaniel | Enders | Director, On-Demand Energy Cloud | Yes |
| CLEAResult | Nick | Brod | Vice President - California/Hawaii | Yes |
| APTIM | Patsy | Dugger | Director | Yes |

| Company | First Name | Last Name | Title | Participated? |
|---|---|---|---|---|
| kW Engineering | Peter | Pollard | Principal | Yes |
| Cadmus Group | Priya | Sathe | Sr. Associate | Yes |
| SF Department of the Environment | Richard | Chien | Senior Program Specialist | Yes |
| TerraVerde Energy | Rick | Brown | President | Yes |
| Frontier Energy | Sam | Bloom | Sr Program Consultant | Yes |
| Resource Innovations | Sarah | Schiller | Data Manager | Yes |
| Enpowered Solutions | Shea | Dibble | Sr. Vice President | Yes |
| Cascade Energy | Siva | Sethuraman | Director | Yes |
| 2050 Partners, Inc. | Ted | Pope | Principal | Yes |
| Enpowered Solutions | Tom | Riley | Partner | Yes |
| Lime Energy | Tony | Coonce | Vice President | Yes |
| Ecology Action | Tracy | Wood | Director | Yes |
| Willdan Group | Vemetria | Muhammad | Outreach Manager | Yes |
| Navigant | Vijeta | Jangra | Managing Consultant | Yes |
| Willdan Energy | Erik | Woychik | Willdan Energy | Yes |
| Whole Foods Market | Aaron | Daly | Global Energy Management | |
| TRC | Abhijeet | Pande | Associate Vice President | |
| BASE Energy, Inc. | Ahmad | Ganji | Principal | |
| NMR Group, Inc. | Alyssa | Naim | Senior Project Manager | |
| City of Irvine | Angie | Burgh | Senior Management Analyst | |
| Lincus Inc. | Arash | Kialashaki | Energy Engineer | |
| Correlate Inc. | Benjamin | Peters | VP | |
| CLEAResult | bob | ornstien | program design | |
| Nexant | Brad | Simcox | | |
| CEC | Brian | Samuelson | Energy Specialist | |
| Community Development Commission of Mendocino County | Bryan | Titzler | Sustainability and Energy Efficiency Specialist | |
| Innovatus Performance | Caroline | Bartolome | Principal Consultant | |
| ARC Alternatives | Curtis | Schmitt | Principal | |
| California Energy Commission | Cynthia | Rogers | Energy Analyst | |
| Self Employed | Daniel | Jones | Energy Efficiency Specialist | |
| CPUC | Dave | Peck | Advisor | |
| Franklin Energy | Ed | McGlynn | VP C&I Strategy | |
| ConEdison | Felise | Man | Project Specialist | |
| DNV GL | Fred | Coito | Sr Principal Consultant | |
| Franklin Energy | Fred | Dreher | Vice President - SMB Strategy | |
| The Mendota Group, LLC | Grey | Staples | Managing Director | |

| Company | First Name | Last Name | Title | Participated? |
|---|---|---|---|---|
| ORA-CPUC | Helena | Oh | Analyst | |
| Opinion Dynamics | Hilary | Polis | Senior Consultant | |
| Lincus, Inc. | Hob | Issa | VP | |
| Energy Solutions | James | Hanna | Senior Technical Director | |
| NMR Group | Joanne | O'Donnell | Senior Project Manager | |
| Transformative Wave | Joe | Schmutzler | director of utility relations | |
| MCE | Joey | Lande | Customer Programs Manager | |
| NORESCO | Judie | Porter | Director | |
| APTIM | KATHERINE | MITCHELL | Planning & Evaluation Analyst | |
| San Francisco Department of the Environment | Kathleen | Bryan | Senior Energy Specialist | |
| Energy Commission | Laith | Younis | Scientist | |
| DNV GL | Leo | Sommaripa | Senior Consultant | |
| CESC | Martin | Bond | Director | |
| 1974 | Matt | Golden | CEO | |
| CPUC | Mona | Dzvova | - | |
| Staples & Associates | Nate | Baer | Managing Partner/COO | |
| California Energy Commission | Nicholas | Janusch | Energy Commission Specialist II | |
| Strategic Energy Technologies, Inc. | Nikhil | Gandhi | President | |
| Power TakeOff | Peter | Widmer | VP, Business Development | |
| Forest Lighting | Phillip | Staver | Director of Sales for US Western States | |
| Inland Empire Utilities Agency | Pietro | Cambiaso | Supervisor Environmental Compliance and Energy | |
| UC Berkeley | Raul | Abesamis | Energy Engineer | |
| Energy Infrastructure Partners | Renwick | Paige | Partner | |
| BlueGreen Alliance | Ross | Nakasone | California Policy Organizer | |
| Clean Coalition | Sahm | White | Dir. Policy & Econ Analysis | |
| NORESCO | Sally | Blair | Program Director | |
| BASE Energy | Sandra | Chow | Senior Engineer | |
| GridX, Inc. | Scott | Engstrom | VP Corp Strategy & Bus Dev | |
| HHEA | Susan | Davison | Director | |
| MCR Performance Solutions, LLC | Thomas | Crooks | Vice President Energy Efficiency | |
| Inland Empire Utilities Agency | Tiffany | Tran | Associate Engineer | |
| Correlate Inc | Tom | Kunhardt | Energy Management Advisor | |
| SCE | Truc | Nguyen | | |
| SoCalGas | Vanessa | Gomez | Program Manager | |

| Company | First Name | Last Name | Title | Participated? |
|---|---|---|---|---|
| Southern California Gas Company | Veronica | Padilla | Program Manager | |

## APPENDIX B. MBI WORKSHOP AGENDA

# Market Based Incentive Design for Commercial Customers

**California IOUs, the Council and Navigant Sponsored Workshop***
**March 13, 2018 in San Francisco, CA**

* This event is part of a ratepayer funded commercial market based incentives study authorized by the CPUC.

# AGENDA

**Tuesday, March 13, 2018, from 9:30 a.m. – 4:30 p.m.**
**Navigant Offices, San Francisco, CA (address upon registration)**
**Phone: 303-248-0285, Web: www.readytalk.com, Access Code (phone and web): 6789012**
https://cedmc.org/2018workshop/

IOUs, implementers and commercial customers will discuss what incentives customers may need to be offered – both monetary and non-monetary —in IOUs and 3P implementer programs to spur significant uptake in key commercial custom programs, considering locational and/or temporal situations, NMEC or AB802 To-code and above-code situations, and high impact technologies or segments.

**Agenda:**

| | |
|---|---|
| 9:30 – 10:00 AM | **Registration** |
| 10:00 – 10:30 AM | **Welcome and Introduction** |
| 10:30 – 10:45 AM | **Study Focus / Workshop Objectives** |
| 10:45 – 12:00 PM | **Plenary Discussion - Incentive issues and concepts:**<br>• **Locational / Temporal, AB802, and Measure Based Situations** |
| 12:00 – 12:30 PM | **Break and grab box lunch** |
| 12:30 – 12:45 PM | **Introduction to Breakout Sessions** |
| 12:45 – 2:00 PM | **Breakout Sessions:**<br>• **Locational / Temporal**<br>• **AB 802: ECB (Existing Conditions Baselines) / NMEC**<br>• **Measure Based** |
| 2:00 – 2:45 PM | **Debrief of Breakout Sessions** |
| 2:45 – 3:00 PM | **Break** |

| | |
|---|---|
| 3:00 – 3:30 PM | **Importance of Customer Voice** |
| 3:30 – 4:00 PM | **Feasibility and Regulatory Factors** |
| 4:00 – 4:30 PM | **Workshop Review and Next Steps** |