



## Staff Report Item 18

**TO:** East Bay Community Energy Board of Directors

**FROM:** Annie Henderson, VP Marketing and Account Services

**SUBJECT:** PG&E Time-Of-Use Rate Transition (Action Item)

**DATE:** June 19, 2019

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### Recommendation

Receive report on planned PG&E Time-of-Use (TOU) rate transition, and approve resolution for EBCE participation in a transition of residential and non-residential customers to a default TOU rate in concert with the efforts of PG&E.

### Background and Discussion

#### **Regulatory Background**

In July 2015, California Public Utilities Commission (CPUC) decision ([D.\)15.07-001](#)) provided direction to the investor-owned utilities (IOUs) regarding specific steps that must be taken to reform the residential rate structure resulting in default time-of-use (TOU) rate for residential customers. A primary driver for the transition to a TOU rate is to maximize use of power when renewable energy generation is high and minimize use of power when the grid relies on fossil-fuel generation. PG&E estimates a savings of up to 10,000 tons of CO<sub>2</sub> per year across PG&E territory due to load shifting associated with the new TOU rate.

Specific requirements of the decision include:

- Transition to TOU is optional (customer can decline default rate)
- There is to be a “mild differential” between on-peak and off-peak rates
- IOUs must offer one year of bill protection<sup>1</sup>
- There must be education and outreach to customers
- Certain customer groups will be excluded from the default transition, including but not limited to:

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<sup>1</sup> The decision describes Bill Protection as “If, at the end of the year, a customer would have been better off on the previous rate plan, the customer will be credited the difference on their bill.”

- Customers on the medical baseline allowance program
- Customers requiring third party notification and/or in-person visit prior to disconnection
- Customers that do not have a Smart Meter or interval meter, or less than 12 months of interval data
- Customers enrolled in or eligible for CARE/FERA discount programs and located within hot climate zones (<100 customers in Alameda County)
- Customers already on an optional TOU rate (NEM2.0, E6, EVA/B not eligible)

Community choice energy programs, such as East Bay Community Energy (EBCE), are not required to default customers onto a TOU rate. However, all IOUs, including Pacific Gas & Electric (PG&E), are required to transition customers to a TOU rate. TOU transition applies to both residential and non-residential customers. Non-residential (commercial and industrial) customers are scheduled for rate transition in November 2020 and are not offered bill protection. Residential customers are proposed to transition to TOU rates in May 2021 in Alameda County. PG&E will offer bill protection for its bundled residential customers.

The information provided in this report focuses on the residential rate transition. However, the resolution requests approval for both residential and non-residential participation in the TOU transition.

The current proposed structure of the residential TOU rate is for peak hours (highest cost) between 4 PM and 9 PM every day, including weekends. The [PG&E rate](#) is currently called “Time-of-Use (Peak Pricing 4-9 P.M. Everyday)”. As of early June, there are approximately 2,000 residential customers that voluntarily switched to this TOU rate and are served by EBCE.

### Initial Pilots and Default Roll-Out

PG&E conducted pilots in the last few years:

- Phase 1 - Voluntary Opt-In Pilot (2016/2017)
- Phase 2 - Default Pilot (began April 2018)
- Phase 3 - Default Roll-Out (begins October 2020)

Phase 2 wrapped up in April 2019 and analysis of the impacts show an average 4.2% reduction in load per hour per customer with some load shifting but overall load conservation. Phase 2 included customers from three Community Choice Aggregators (CCA): MCE Clean Energy, Sonoma Clean Power (SCP), and Silicon Valley Clean Energy (SVCE). Below are the participation results of the Phase 2 default pilot enrollment.

	PG&E + CCAs		MCE		SCP		SVCE	
Initial Population	160,525	100%	9,921	100%	8,158	100%	8,509	100%

Ineligible	7,540	4.70%	460	4.6%	408	5.0%	366	4.3%
Declined	38,996	24.29%	1,913	19.3%	1,574	19.3%	1,702	20.0%
Transitioned	113,991	71.01%	7,548	76.1%	6,176	75.7%	6,441	75.7%

The goals of the Phase 2 pilot were to test customer messaging, customer notification timing and process, customer enrollment, impacts of bill protection, and overall impact on electricity load.

### **Marketing, Education, and Outreach**

The CPUC has aggregated funds from IOU customers to support an \$8.5M statewide marketing, education, and outreach campaign. The statewide campaign includes two chapters. The first chapter is referred to as the “vision” campaign and provides the context for why a customer should care about when they use electricity. The second chapter is a call to action that includes ideas and tips on how to shift energy usage. The statewide campaign includes multiple channels of paid advertising, public relations and outreach, and engagement with Community Based Organizations (CBOs).

Both the vision and call to action chapters of the campaign are underway now in San Diego Gas & Electric (SDG&E) territory. The vision chapter of the campaign began in March 2019 in PG&E territory. The vision campaign slogan is “[Keep It Golden](#)”. Though the vision chapter does not have a strong call to action, it does direct viewers to the Energy Upgrade California website. There is a [section](#) of the website dedicated to educating customers on when there is the greatest demand for power versus when there is the greatest output from renewable energy resources. The site identifies the period of 4 PM to 9 PM as peak usage hours with the lowest amount of renewable energy available, which is in alignment with the IOUs’ TOU rate structure with peak hours from 4 PM to 9 PM every day.

EBCE customers are already being exposed to the statewide vision campaign.

In addition to the statewide campaign, each IOU will have a marketing campaign in its territory. Customer communications will provide personalized bill impact information to all default eligible customers, rate choices, bill impact information, and tips and tools on ways to save. Customers will receive notifications 90, 60, and 30 days prior to transition, and a welcome packet following transition to the new TOU rate. PG&E’s campaign will begin in October 2020 and run through June 2021.

### **Fiscal Impact**

A default transition of residential customers onto a TOU rate structure has a fiscal impact on EBCE in two ways: 1) cost of bill protection, and 2) reduced revenue.

Customers that receive the bill protection benefit are those that received higher bills on the new TOU rate compared to the previous flat, E1 rate. Some of these customers, the “rate losers,” will select to return to the E1 rate after 12 months on the TOU rate, while others may shift the time of day that they use electricity. Those that do not need bill protection are paying the same, or less, on TOU than they were on the E1 rate. These customers are “rate benefiteres;” they do not need to make any changes to their usage patterns to benefit from the TOU rate. We assume the majority of these customers will remain with TOU and continue to, effectively, pay less for the same amount of electricity over 12 months.

Both PG&E and EBCE have analyzed the potential financial impact and came to very similar conclusions. Below are the assumptions and results:

### **Assumptions**

- ~355,000 eligible EBCE residential customers (as of February 2019)
- All eligible customers participate in transition
- Certain customers are excluded including medical baseline, customers without interval data, and customers already on a TOU rate
- PG&E and EBCE rates as of 1/1/19
- 2018 usage
- Full 12 months of bill protection for each customer
- Customers do not take any action to shift their energy use to other time periods

### **Results**

- Total generation revenue from customers on TOU 4-9 PM Everyday - \$107M
- Cost of Bill Protection - \$300,000
  - Number of customers that pay more on TOU (“rate losers”) - 25,000
- Reduction in Revenue - \$4.8M (4.3% reduction from tiered rate revenue)
  - Number of customers that pay less on TOU (“rate benefiteres”) - 330,000

### **Additional Considerations**

#### **Backend Support**

EBCE’s backend system already supports this rate structure. However, the system will need to be updated to switch several hundred thousand customers to a new rate in a single month, implement updates when customers decline the new TOU rate, track the duration of bill protection per customer, and calculate and report the amount of bill protection per customer. Additionally, our call center representatives will need to be trained on this transition and we should anticipate that call volume and duration will increase.

#### **Constraints**

PG&E developed an online bill protection calculator and a rate comparison tool to inform customers about the potential financial impact of this rate transition. These tools are presented with the PG&E generation rate as a proxy for EBCE (and other CCA) rates. Due to our current modest discount, this is not a substantial constraint; however, it could further

increase customer confusion. Additionally, EBCE will continue to rely on PG&E for rate information about each customer. This means that a customer must call PG&E to decline the rate transition, and PG&E must pass this information along to EBCE for the correct rate to be applied to the customer’s bill.

### Outreach

EBCE’s initial analysis assumes about 25,000 residential customers could pay more on a TOU rate structure assuming no changes in behavior. Targeted marketing and outreach campaigns to this identified population could help to inform and influence behavior to reduce usage and therefore avoid increases to the customer’s bill.

### Comparison of Potential Options

		1	2	3	4
		TOU 4-9 + Bill Protection	TOU 4-9, No Bill Protection	Different TOU structure + Bill Protection	No TOU Default
Cost	Avoid pay-out of estimated \$300,000	X	✓	X	✓
	Customers save money by reducing during peak hours	✓	✓	✓	X
Environment	Incentives customers to shift use to when more renewable energy is in power mix	✓	✓	✓	X
Marketing	Consistent message, leverages statewide and PG&E campaigns	✓	X	X	X
Customer Experience	No advantage to switch to PG&E	✓	X	✓	X
	Clear message about when to shift use	✓	✓	X	X
Load	Hours match Alameda County peak	X	X	✓	X
Operations	Systems can currently support	✓ *	✓	X	✓

*\*Current system will need to be updated to support current aspects of bill protection*

### Timeline

Date	Event
January 2019	CPUC hearings
March-April 2019	Briefings filed in CPUC proceedings
March 2019	Default transition begins in SDG&E territory
March 2019	Statewide “vision” marketing campaign begins in PG&E territory

<b>June 2019</b>	CPUC proposed decision
<b>July 2019</b>	CPUC final decision
<b>August 2019</b>	EBCE must approve versions of customer notification
<b>October 2019</b>	PG&E requests EBCE final decision
<b>April 2020</b>	PG&E sets TOU as default rate for new residential customers
<b>October 2020</b>	PG&E call to action marketing campaign begins
<b>November 2020</b>	TOU rate transition for non-residential customers
<b>May 2021</b>	Proposed EBCE TOU rate transition for residential customers
<b>October 2021</b>	Last new residential customer eligible for bill protection
<b>October 2022</b>	Last payout of bill protection

**Staff Recommendation**

EBCE staff recommends that the EBCE board approves the attached resolution to participate in the transition of EBCE residential customers to the new TOU rate in May 2021 and the transition of EBCE non-residential customers in November 2020, in concert with the PG&E transition. This recommendation is based on agreement with the need to shift usage to times when more renewable energy is available, and the potential for significant customer confusion if EBCE rates do not align with the structure promoted by the statewide and local IOU marketing campaigns.

This item is coming to the board at this time in order to support early alignment with the statewide marketing campaign, better coordination and collaboration with PG&E in drafting joint notifications, and sufficient time to develop EBCE supporting assets such as web pages, collateral, targeted outreach, and call center support.

RESOLUTION NO. \_\_\_\_  
A RESOLUTION OF THE BOARD OF DIRECTORS OF  
THE EAST BAY COMMUNITY ENERGY AUTHORITY TO  
APPROVE PARTICIPATION IN THE DEFAULT TIME-OF-USE RATE TRANSITION

THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY DOES  
HEREBY FIND, RESOLVE AND ORDER AS FOLLOWS:

Section 1. The East Bay Community Energy Authority (“EBCE”) was formed on December 1, 2016, under the Joint Exercise of Power Act, California Government Code sections 6500 *et seq.*, among the County of Alameda, and the Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Piedmont, Oakland, San Leandro, and Union City to study, promote, develop, conduct, operate, and manage energy and energy-related climate change programs in all of the member jurisdictions.

Section 2. Pacific Gas & Electric (PG&E) is required by the California Public Utilities Commission (CPUC) to transition residential and non-residential customers onto a time-of-use rate. The CPUC mandates PG&E to offer bill protection for one year to residential customers.

Section 3. As part of the mandated transition there will be robust statewide and local marketing, outreach, and education campaigns to encourage customers to reduce their use of electricity between the hours of 4 PM and 9 PM.

Section 4. EBCE supports the use of energy during times when renewable energy assets are generating electricity and encourages the reduction of use at times when there are more greenhouse gas emissions associated with the power on the grid. EBCE wishes to reduce customer confusion and supports a financially neutral transition to the new time-of-use rate.

Section 5. Based on the foregoing, the Board hereby approves the participation of non-residential and residential EBCE customers in a transition to a default time-of-use rate in concert with the efforts of PG&E, including mirroring the peak hours of 4 PM to 9 PM every day of the week and offering bill protection to residential customers for one year.

ADOPTED AND APPROVED this 19th day of June 2019.

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Scott Haggerty, Chair

ATTEST:

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Stephanie Cabrera, Clerk of the Board





# Time-of-Use Rate Transition

PRESENTED BY: ANNIE HENDERSON

DATE: JUNE 19, 2019



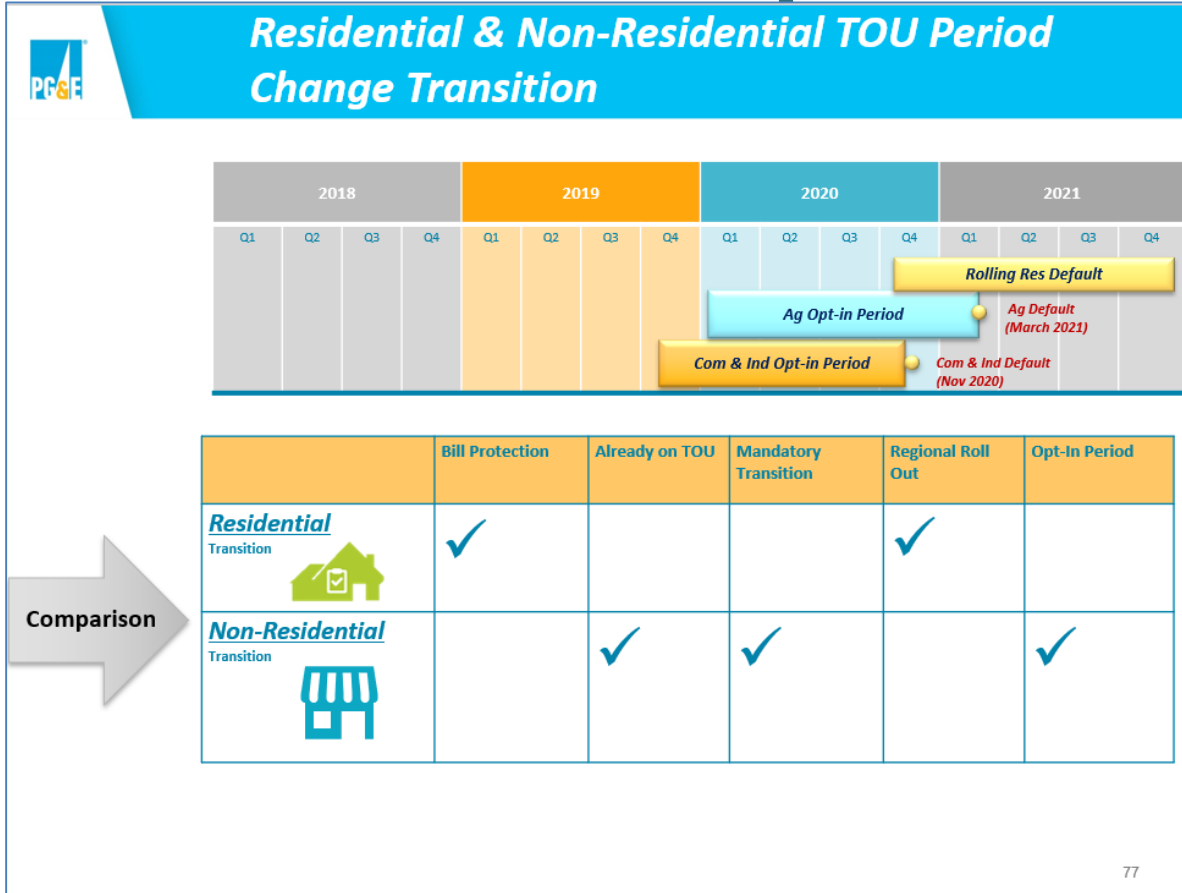
# Comparison of Potential Options

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Cost	Avoid pay-out of estimated \$300,000	X	✓	X	✓
	Customers save money by reducing during peak hours	✓	✓	✓	X
Environment	Incentives customers to shift use to when more renewable energy is in power mix	✓	✓	✓	X
Marketing	Consistent message, leverages statewide and PG&E campaigns	✓	X	X	X
Customer Experience	No advantage to switch to PG&E	✓	X	✓	X
	Clear message about when to shift use	✓	✓	X	X
Load	Hours match Alameda County peak	X	X	✓	X
Operations	Systems can currently support	✓ *	✓	X	✓

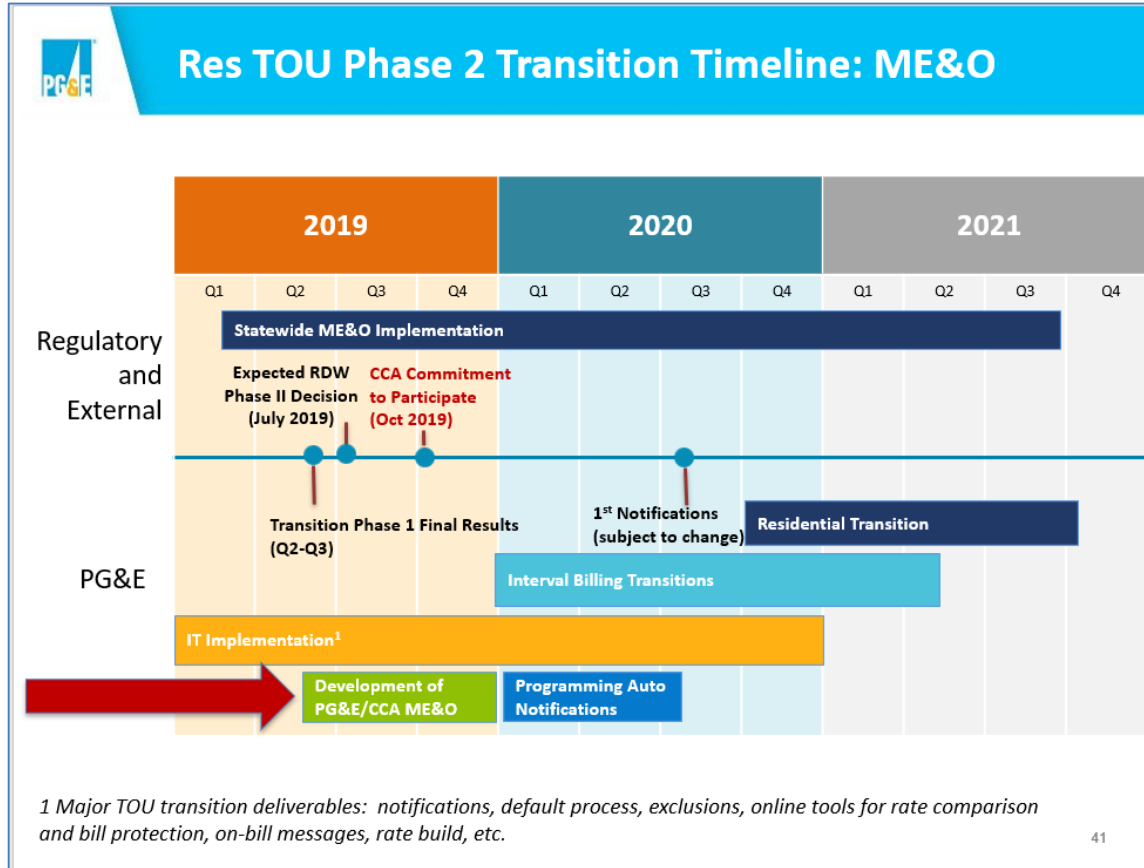
# BACKGROUND



# PG&E Timeline and Components



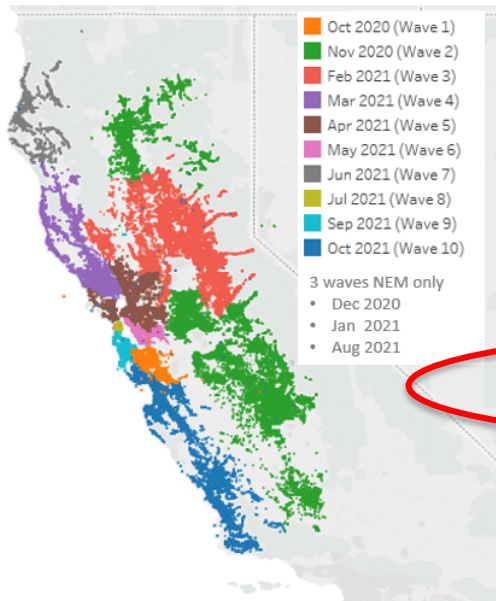
# PG&E Timeline



# Residential Transition



## Residential TOU Full Rollout Plan (13 month rollout)



Counties	Service Provider Territory Included	Totals
<b>Oct 2020 (Wave 1)</b>		
		394,836
Santa Clara	San Jose Clean Energy (SJCE)	227,998
	Silicon Valley Clean Energy (SVCE)	166,838
<b>Nov 2020 (Wave 2)</b>		
Fresno, San Joaquin, Kern, Tuolumne, Shasta, Madera, Merced, Tehama, Plumas, Stanislaus, Mariposa, Kings, Tulare, Lassen		200,876
PG&E Bundled		200,876
<b>Feb 2021 (Wave 3)</b>		
		181,459
Placer, El Dorado, Yolo, Butte, Nevada, Calaveras, Lake, Amador, Sutter, Yuba, Glenn, Colusa, Sacramento, Sierra, Alpine	PG&E Bundled	118,183
	Pioneer Community Energy (PIO)	43,125
	Valley Clean Energy (VCE)	20,151
<b>Mar 2021 (Wave 4)</b>		
Sonoma, Mendocino		136,031
Sonoma Clean Power		136,031
<b>Apr 2021 (Wave 5)</b>		
		409,382
Contra Costa, Solano, Marin, Napa	MCE	307,341
	PG&E Bundled	102,041
<b>May 2021 (Wave 6)</b>		
		398,624
Alameda	East Bay Community Energy (EBCE)	369,913
	PG&E Bundled	28,711
<b>Jun 2021 (Wave 7)</b>		
		38,695
Humboldt, Trinity, Siskiyou	Redwood Coast Energy Authority (RCEA)	37,842
	PG&E Bundled	853
<b>Jul 2021 (Wave 8)</b>		
		261,529
San Francisco	CleanPowerSF (CPSF)	261,529
<b>Sep 2021 (Wave 9)</b>		
		200,182
San Mateo	Peninsula Clean Energy (PCE)	200,182
<b>Oct 2021 (Wave 10)</b>		
		262,936
Monterey, Santa Cruz, San Luis Obispo, Santa Barbara, San Benito	Monterey Bay Community Power (MBCP)	169,088
	PG&E Bundled	91,578
	King City Community Power	2,270

Note: Customer counts are approximate and reflect PG&E's proposed exclusion criteria. Also, assuming NEM customers transition on their true-up date, each wave would have an additional ~10K NEM customers. This table assumes all customers within each CCA territory are enrolled with the CCA service provider.

# Pilot Results



## Summary

- Statistically and materially significant load reductions seen across all segments during Peak Hours 4-9 PM. Average load reduction is 4.2%/hr/cust
  - Eight segments analyzed (5 PG&E, 2 CCA, 1 NEM)
  - Load Impacts assessed for the first Summer on new rate (Jun through Sep)
  - Peak Load Impacts assessed using standard Demand Response protocol models
- Load Conservation behavior among most segments.
  - Although there is load shifting behavior seen in off-peak hours, story in almost all segments is load conservation (any off-peak hour load shift/increase is offset by peak period reduction gains)
  - For some segments, off-peak usage increase is limited to few hours, while in other cases it is across all off-peak hours
- Impacts smaller than the Opt-In pilot for most segments (and lower than self-enrollments to TOU rates)
- Across all segments
  - Hotter climate regions are associated with higher load impacts
  - Within a climate, CARE customers have lower impacts than non-CARE customers
- The two participating CCA's (+90% moderate) showed reductions similar to PG&E moderate zones

# Examples of Statewide Marketing

DDB

## TOU STRATEGIC APPROACH

Give Californians context and a reason to care about TOU in order to move them from apathy to meaningful, long-term action.

- Evoke personal connection to the future of CA
- Ensure that everyone understands they need to change behavior to protect CA
- Illuminate that the time you use matters and raise awareness of 4-9PM\* peak time

### Chapter 1: The Launch Idea Statewide Energy Vision | “The Why”



#### Chapter 1 “The Why”

Provide the context and inspire customers about “why” the change is needed. A Statewide vision will prime consumer for the TOU conversation by introducing a new understanding of “using energy better.” Ideally, 12 months prior to the transition.

#### Opportunity – 12 month prior to transition

- Build a strong sense of pride and responsibility to use energy wisely
- Deliver a positive message about protecting our state
- Recognize our individual and social responsibility

Complete

### Chapter 2: Behavior Change Idea In Development Peak Shifting | “The How”



#### Chapter 2 “The How”

Encourage customers to rally and take action. Peak shifting will reinforce the need to use energy differently. Behavioral elements will demonstrate how to “use energy better.” Strategically timed in alignment with when customers are likely to notice an impact in their bill and are most likely to make behavior changes.

#### Opportunity – 5 months timed around when customers will mostly make changes

- Demonstrate when and how Californians can shift their energy use in a crystal clear way
- Telegraph our message in a memorable way that drives an intent to act

Energy Upgrade California

TOU ME&O Overview

\* San Diego Market Only. Other territories are exploring various time frames (4-8, 5-8, etc)



# Image from EnergyUpgradeCA.org

## When To Use Energy

By making a few small changes to your routine you can help create a big change for California. It's as simple as shifting when you use energy.

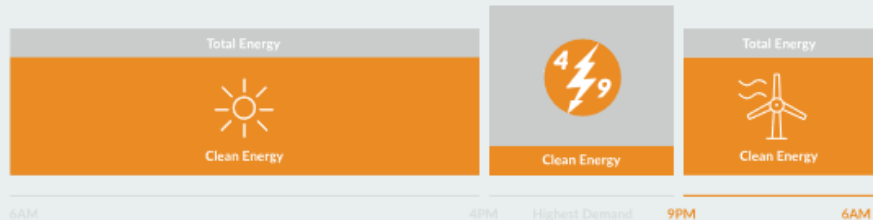
6AM – 4PM

4PM – 9PM

9PM – 6AM

### Total Energy Usage and Availability of Clean Energy







At night as we go to bed, our energy use decreases, just as California's clean energy produced from wind farms become available.









# Outreach Metrics for PG&E

## EUC TOU COMMUNITY OUTREACH METRICS – BY TERRITORY









-  17 events
-  640 doors knocked
-  4,080 texts
-  13,649 phone calls
-  24,789 emails
-  5,000 pieces of collateral distributed



-  147 events
-  152 doors knocked
-  13 texts
-  140 phone calls
-  9,548 emails
-  25,000 pieces of collateral distributed



-  188 events
-  3,228 doors knocked
-  50 texts
-  225 phone calls
-  348,403 emails
-  32,000 pieces of collateral distributed

EUC Program Update

# CBO Partners for PG&E

## PG&E Territory – UPCOMING EUC TOU COMMUNITY OUTREACH



ASE will be reaching out to school districts in Northern California in preparation for launching the TOU program in the Fall 2019 semester.



The CCB's Annual Conference and Convention is set to take place from June 4-9, 2019 in Fresno, CA.

CCB plans to hold a TOU panel on Friday June 7<sup>th</sup>, and is coordinating with PG&E to feature an IOU representative.



The American GI Forum is slated to conduct a veteran-specific outreach campaign around the 4<sup>th</sup> of July.