



## REGULAR MEETING

# ENERGY AND ENVIRONMENT COMMITTEE

### Main Office

818 West 7th Street  
12th Floor  
Los Angeles, California  
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www.scag.ca.gov

### Officers

President  
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Energy & Environment  
Carmen Ramirez, Oxnard  
  
Transportation  
Barbara Messina, Alhambra

**Please Note Time**  
**Thursday, June 2, 2016**  
**10:30 a.m. – 12:00 p.m.**

**SCAG Main Office**  
**818 W. 7th Street, 12th Floor**  
**Policy Committee Room A**  
**Los Angeles, CA 90017**  
**(213) 236-1800**

If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Tess Rey-Chaput at (213) 236-1908 or via email at [REY@scag.ca.gov](mailto:REY@scag.ca.gov). Agendas & Minutes for the EEC are also available at: <http://www.scag.ca.gov/committees/Pages/default.aspx>

SCAG, in accordance with the Americans with Disabilities Act (ADA), will accommodate persons who require a modification of accommodation in order to participate in this meeting. SCAG is also committed to helping people with limited proficiency in the English language access the agency's essential public information and services. You can request such assistance by calling (213) 236-1908. We request at least 72 hours (three days) notice to provide reasonable accommodations and will make every effort to arrange for assistance as soon as possible.

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## Energy and Environment Committee

### Members – June 2016

#### Members

#### Representing

<b>Chair*</b>	1. Hon. Carmen Ramirez	<i>Oxnard</i>	<b>District 45</b>
<b>Vice-Chair*</b>	2. Hon. Ross Chun	<i>Aliso Viejo</i>	<b>TCA</b>
*	3. Hon. Margaret Clark	<i>Rosemead</i>	District 32
	4. Hon. Jordan Ehrenkranz	<i>Canyon Lake</i>	WRCOG
*	5. Hon. Mitchell Englander	<i>Los Angeles</i>	District 59
	6. Hon. Larry Forester	<i>Signal Hill</i>	GCCOG
	7. Hon. Laura Friedman	<i>Glendale</i>	Arroyo Verdugo Cities
	8. Hon. Mike Gardner	<i>Riverside</i>	WRCOG
*	9. Hon. Vartan Gharpetian	<i>Glendale</i>	SFVCOG
	10. Hon. Sandra Genis	<i>Costa Mesa</i>	OCCOG
	11. Hon. Ed Graham	<i>Chino Hills</i>	SANBAG
	12. Hon. Jack Hadjinian	<i>Montebello</i>	SGVCOG
	13. Hon. Jon Harrison	<i>Redlands</i>	SANBAG
	14. Hon. Shari Horne	<i>Laguna Woods</i>	OCCOG
*	15. Hon. Steve Hwangbo	<i>La Palma</i>	District 18
	16. Hon. Diana Mahmud	<i>South Pasadena</i>	SGVCOG
	17. Hon. Thomas Martin	<i>Maywood</i>	GCCOG
*	18. Hon. Judy Mitchell	<i>Rolling Hills Estates</i>	District 40
	19. Hon. Jim Osborne	<i>Lawndale</i>	SBCCOG
*	20. Hon. Linda Parks		Ventura County
*	21. Hon. Greg Pettis	<i>Cathedral City</i>	District 2
	22. Hon. David Pollock	<i>Moorpark</i>	VCOG
*	23. Hon. Deborah Robertson	<i>Rialto</i>	District 8
	24. Hon. Meghan Sahli-Wells	<i>Culver City</i>	WCCOG
	25. Hon. Betty Sanchez	<i>Coachella</i>	CVAG
	26. Mr. Steve Schuyler	<i>Building Industry Association of Southern California (BIASC)</i>	Ex-Officio
*	27. Hon. John Sibert	<i>Malibu</i>	District 44
*	28. Hon. Jack Terrazas		Imperial County
	29. Hon. Diane Williams	<i>Rancho Cucamonga</i>	SANBAG
	30. Hon. Edward Wilson	<i>Signal Hill</i>	GCCOG
	31. Hon. Bonnie Wright	<i>Hemet</i>	WRCOG

\* Regional Council Member

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# ENERGY & ENVIRONMENT COMMITTEE

## AGENDA

### JUNE 2, 2016

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*The Energy & Environment Committee (EEC) may consider and act upon any of the items listed on the agenda regardless of whether they are listed as Information or Action Items.*

#### **CALL TO ORDER & PLEDGE OF ALLEGIANCE**

*(Hon. Carmen Ramirez, Chair)*

**PUBLIC COMMENT PERIOD** – Members of the public desiring to speak on items on the agenda, or items not on the agenda, but within the purview of the Committee, must fill out and present a speaker’s card to the Assistant prior to speaking. Comments will be limited to three (3) minutes. The Chair may limit the total time for all comments to twenty (20) minutes.

#### **REVIEW AND PRIORITIZE AGENDA ITEMS**

#### **CONSENT CALENDAR**

**Time**    **Page No.**

##### **Approval Items**

- |  |                   |          |
|--|-------------------|----------|
| 1. <u>Minutes of the Meeting – April 7, 2016</u> | <b>Attachment</b> | <b>1</b> |
|--|-------------------|----------|

##### **Receive and File**

- |   |                   |           |
|---|-------------------|-----------|
| 2. <u>SCAG Invitation to the 27<sup>th</sup> Annual Demographic Workshop – June 13, 2016</u>                                  | <b>Attachment</b> | <b>7</b>  |
| 3. <u>2016 Regional Council and Policy Committees Meeting Schedule</u>  | <b>Attachment</b> | <b>10</b> |
| 4. <u>Cap-and-Trade/Greenhouse Gas Reduction Fund: Affordable Housing &amp; Sustainable Communities (AHSC) Program Update</u> | <b>Attachment</b> | <b>11</b> |

#### **INFORMATION ITEMS**

- |   |                            |           |
|---|----------------------------|-----------|
| 5. <u>SCAG Clean Cities Coalition Update</u><br><i>(Marco Anderson, SCAG Staff)</i> | <b>Attachment 15 mins.</b> | <b>16</b> |
| 6. <u>The Energy Network Program</u><br><i>(Alan Thompson, SCAG Staff)</i>          | <b>Attachment 30 mins.</b> | <b>25</b> |

# ENERGY & ENVIRONMENT COMMITTEE

## AGENDA

### JUNE 2, 2016

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#### **CHAIR'S REPORT**

*(Hon. Carmen Ramirez, Chair)*

#### **STAFF REPORT**

*(Grieg Asher, SCAG Staff)*

#### **FUTURE AGENDA ITEMS**

#### **ANNOUNCEMENTS**

#### **ADJOURNMENT**

*The next regular meeting of the Energy and Environment Committee (EEC) will be held on Thursday, July 7, 2016 at the SCAG Los Angeles Office.*

Energy and Environment Committee  
of the  
Southern California Association of Governments  
April 7, 2016

*Minutes*

**THE FOLLOWING MINUTES ARE A SUMMARY OF ACTIONS TAKEN BY THE ENERGY AND ENVIRONMENT COMMITTEE. A DIGITAL RECORDING OF THE ACTUAL MEETING IS AVAILABLE FOR LISTENING IN SCAG'S OFFICE.**

The Energy and Environment Committee (EEC) held its meeting at the SCAG Los Angeles Office. The meeting was called to order by the Hon. Deborah Robertson, Chair. There was a quorum.

**Members Present**

Hon. Ross Chun, Aliso Viejo	TCA
Hon. Margaret Clark, Rosemead	District 32
Hon. Larry Forester, Signal Hill	GCCOG
Hon. Laura Friedman, Glendale	Arroyo Verdugo Cities
Hon. Mike Gardner, Riverside	WRCOG
Hon. Shari Horne, Laguna Woods	OCCOG
Hon. Thomas Martin, Maywood	GCCOG
Hon. Judy Mitchell, Rolling Hills Estates	District 40
Hon. Mike Munzing, Aliso Viejo	District 12
Hon. Linda Parks	Ventura County
Hon. Carmen Ramirez, Oxnard ( <b>Vice-Chair</b> )	District 45
Hon. Deborah Robertson, Rialto ( <b>Chair</b> )	District 8
Hon. Meghan Sahli-Wells, Culver City	WCCOG
Hon. Betty Sanchez, Coachella Valley	CVAG
Mr. Steve Schuyler, Ex Officio	Building Industry Association
Hon. John Sibert, Malibu	District 44
Hon. Diane Williams, Rancho Cucamonga	SANBAG

**Members Not Present**

Hon. Denis Bertone, San Dimas	SGVCOG
Hon. Jordan Ehrenkranz, Canyon Lake	WRCOG
Hon. Mitchell Englander, Los Angeles	District 59
Hon. Vartan Gharpetian, Glendale	SFVCOG
Hon. Sandra Genis, Costa Mesa	OCCOG
Hon. Ed Graham, Chino Hills	District 10
Hon. Steve Hwangbo, La Palma	District 18
Hon. Diana Mahmud, South Pasadena	SGVCOG
Hon. Jim Osborne, Lawndale	SBCCOG
Hon. Greg Pettis, Cathedral City	District 2
Hon. David Pollock, Moorpark	VCOG
Hon. Eric Schmidt, Hesperia	SANBAG
Hon. Jack Terrazas	Imperial County
Hon. Edward Wilson, Signal Hill	Gateway Cities
Hon. Bonnie Wright, Hemet	WRCOG

## **CALL TO ORDER & PLEDGE OF ALLEGIANCE**

Hon. Deborah Robertson, Chair, Rialto, called the meeting to order at 10:02 a.m. and led the Committee in the Pledge of Allegiance.

## **PUBLIC COMMENT PERIOD**

Ms. Vicki Kirschenbaum, Citizens Climate Lobby, Pasadena Chapter, said she wanted to make the members of the EEC aware that her organization is an advocate for Federal Carbon Pricing, specifically a carbon fee and dividend, and a Cap and Trade mechanism.

## **REVIEW AND PRIORITIZE AGENDA ITEMS**

### **ACTION ITEM**

#### 1. Election of 2016-17 EEC Chair and Vice-Chair

Justine Block, SCAG Deputy Legal Counsel, explained the election process to the committee members and informed them of the nominations that were received. Hon. Carmen Ramirez, Oxnard, representing District 45 was nominated for Chair and Hon. Ross Chun, Aliso Viejo, representing TCA was nominated for Vice-Chair. Ms. Block then asked if there were any additional nominations from the floor.

Ms. Block stated that the committee has the option of making a motion to dispense with the paper ballots if a motion was made to approve the slate of candidates.

A MOTION was made (Forester) to close the nominations and approve the slate of candidates. The MOTION was SECONDED (Robertson) and APPROVED by the following votes:

AYES: Chun, Clark, Forester, Friedman, Gardner, Horne, Mitchell, Parks,  
Ramirez, Robertson, Sibert, Sanchez, Williams  
NOES: None  
ABSTAIN: None

Ms. Block announced the newly elected EEC Chair Carmen Ramirez and Vice Chair Ross Chun.

## **CONSENT CALENDAR**

#### 2. Minutes of the February 4, 2016 Meeting

## **Receive and File**

3. 2016 Regional Council and Policy Committee Meeting Schedule
4. Status Update on Transportation Control Measure (TCM) Substitutions by Los Angeles County Metropolitan Transportation Authority (Metro), Riverside County Transportation Commission (RCTC), and San Bernardino Associated Governments (SANBAG)
5. Resolution No. 16-578-3 for the United States Department of Energy (DOE) Office of Energy Efficiency & Renewable Energy (EERE) Clean Cities Outreach, Education, and Performance Tracking Grant
6. Save the Date: The 27<sup>th</sup> Annual SCAG/USC Demographic Workshop – June 13, 2016
7. SCAG Housing Summit, October 11, 2016
8. Cap-and-Trade Greenhouse Gas Reduction Fund: Affordable Housing & Sustainable Communities (AHSC) Program Concept Application Review

A MOTION was made (Forester) to move the Consent Calendar. The MOTION was SECONDED (Mitchell) and APPROVED by the following votes:

AYES: Chun, Clark, Forester, Friedman, Gardner, Horne, Mitchell, Parks,  
Ramirez, Robertson, Sibert, Sanchez, Williams  
NOES: None  
ABSTAIN: None

## **INFORMATION ITEMS**

9. Southern California Superfund Sites and Groundwater Contamination in the Los Angeles (LA) Central Basin

Steven Leonido-John, Director, Southern California Field Office, with the Environmental Protection Agency (EPA) provided an overview of the EPA's role and efforts to investigate groundwater contamination in the Los Angeles Central Basin. He also briefed the committee on EPA's Superfund program, which is responsible for cleaning up some of the nation's most contaminated land and responds to environmental emergencies such as oil spills and other natural disasters. Other state agencies that also have authority to clean up ground water contamination are the Department of Toxic Substance Control (DTSC) and the Water Quality Control Board (WQCB).

The term "Superfund" came about thirty-five (35) years ago. It stands for the Comprehensive Environmental Response Compensation Liability Act known as CERCLA. The chief responsibility of the Superfund program is cleanup of the most contaminated sites. There is also a program for environmental emergencies. A key part of the program is community involvement, which includes residents and businesses in the cities that the Superfund sites reside in.

Key analysis of a Superfund site includes risk assessment and characterization. A decision is then made on the remedy for cleanup and confinement so there is no adverse impact on the

environment and public health. Engineers then step in to design the remediation. The last component of the Superfund program is reuse of sites. Once a site is confined and is able to be reused again it is brought back into productive use.

There is a tool that EPA and DTSC have been working on, Spatial Prioritization Geographic Information Tool (SPGIT). The tool takes existing information in order to share and evaluate where future efforts need to be focused. Because there is so much contamination in the SCAG region, sites that are most contaminated and have the largest impact on public health need to be dealt with first and are the highest priority. The areas of concern that SPGIT is used to identify are: wells, sources, sensitive environments, conduits, and existing sites.

Hon. Laura Friedman, Glendale, asked with regards to new chemicals and new products, what is the process for making sure that the products are safe before they are put into the environment?

Mr. Leonido-John replied that there is currently language under the Toxic Substance Control Act (TSCA) that is being revised to address this issue. The process takes several years. Previously, there has not been a revision process. It has been reactive vs. proactive. This revision to TSCA is to make it more proactive so as new chemicals are introduced, they have to go through scrutiny to understand the potential ramifications of the substance.

Hon. Laura Friedman asked if there is an action that we as a body can take to push California legislators to move more quickly than the federal government. Mr. Leonido-John responded that SCAG has a very good reputation and carries quite a bit of weight both at the state and federal level. Hon. Laura Friedman stated she would like for the committee to consider action to support a resolution on this issue. Hon. Deborah Robertson, Chair, stated that she agreed and directed SCAG staff to return with more information for the committee about superfund sites in the region and the status of health assessments that have been conducted, and to further bring forward a resolution for consideration by the EEC and RC asking that the State become more proactive on new chemicals and groundwater.

#### 10. Go Human Campaign - Update

Rye Baerg, SCAG Staff, stated that the campaign is doing very well. SCAG has tripled its initial investment in its advertising campaign. Staff has completed over 350 million impressions region wide. Much of this is through direct partnerships with local cities and with county agencies that have donated additional advertising space. Staff has also completed its first two demonstration project events. There will be additional events held in the spring and fall. Staff has completed its first user group panels for the tool kits, one of which will be for elected officials. This will enable you to consider what you can do in your community to promote active transportation. On May 4, 2016 SCAG will hold an Active Transportation Leadership Symposium for elected officials only. The event will be held the day before SCAG's General Assembly. There will be training for the elected officials and then a field trip to SCAG's demonstration project in Palm Desert. Tool kit training will also be hosted for city staff at a later date.

**CHAIR'S REPORT** - None

**STAFF REPORT** - None

**FUTURE AGENDA ITEMS** - None

**ANNOUNCEMENTS** - None

**ADJOURNMENT**

Hon. Deborah Robertson adjourned the meeting at 11:08 a.m.

The next regular meeting of the Energy & Environment Committee (EEC) will be held on Thursday, June 2, 2016 at the SCAG Los Angeles office.

## Energy and Environment Committee Attendance Report

2016

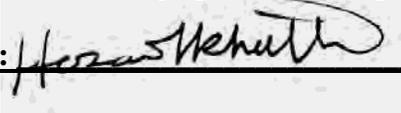
Member (including Ex-Officio) LastName, FirstName	Date Appointed if after 1/1/16	Representing	X = County Represented					X = Attended Black Shading = Dark												Total Mtgs Attended			
			Imperial	Los Angeles	Orange	Riverside	San Bernardino	Ventura	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov		Dec		
Bertone, Denis		SGVCOG		X						J	X	J		G									2
Chun, Ross		TCA								O	X	O	X	E									1
Clark, Margaret		Rosemead		X						I	X	I	X	N									2
Ehrenkranz, Jordan		WRCOG					X			N	X	N		E									1
Englander, Mitchell		Los Angeles		X						T		T		R									
Forester, Larry		Gateway Cities		X							X		X	A									2
Friedman, Laura		AVCOG		X						M	X	M	X	L									2
Gardner, Mike		WRCOG					X			E	X	E	X										2
Genis, Sandra		OCCOG				X				E	X	E		A									1
Gharpetian, Vartan	Apr-16	SFVCOG		X						T		T		S									
Graham, Ed		SANBAG		X						I	X	I	X	S									2
Horne, Shari		OCCOG				X				N	X	N	X	E									2
Hwangbo, Steve		La Palma				X				G	X	G		M									1
Mahmud, Diana		SGVCOG		X							X			B									1
Martin, Thomas		GCCOG		X									X	L									1
Mitchell, Judy		SBCCOG		X							X		X	Y									2
Mojado, Geneva		Tribal COG									X												1
Munzing, Mike		District 12				X					X		X										2
Osborne, Jim		SBCCOG		X							X												1
Parks, Linda		Ventura							X		X		X										2
Pettis, Greg		Cathedral City					X				X												1
Pollock, David		VCOG							X		X												1
Ramirez, Carmen		Oxnard							X		X		X										2
Robertson, Deborah		District 8		X							X		X										2
Sahli-Wells, Meghan		WCCOG		X							X		X										2
Sanchez, Betty							X				X		X										2
Schuyler, Steve		BIASC				X					X		X										2
Sibert, John		District 44	X										X										1
Terrazas, Jack		Imperial County	X								X												1
Williams, Diane		SANBAG		X							X		X										2
Wilson, Edward		Signal Hill					X				X												1
Wright, Bonnie		WRCOG						X															
		<b>TOTALS</b>	<b>2</b>	<b>14</b>	<b>5</b>	<b>5</b>	<b>1</b>	<b>3</b>															

**DATE:** June 2, 2016

**TO:** Regional Council (RC)  
Community, Economic and Human Development (CEHD) Committee  
Energy and Environment Committee (EEC)  
Transportation Committee (TC)

**FROM:** Simon Choi, Chief of Research and Forecasting; 213-236-1849; choi@scag.ca.gov

**SUBJECT:** SCAG Invitation to the 27<sup>th</sup> Annual Demographic Workshop – June 13, 2016

**EXECUTIVE DIRECTOR’S APPROVAL:** 

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**RECOMMENDED ACTION:**  
For Information Only – No Action Required.

**EXECUTIVE SUMMARY:**  
*SCAG and the University of Southern California (USC) Sol Price School of Public Policy will convene the 27<sup>th</sup> Annual Demographic Workshop at the California Science Center on June 13, 2016. We are pleased to invite all Regional Council and Policy Committee members to the workshop. Registration is free for all elected officials.*

**STRATEGIC PLAN:**  
This item supports SCAG’s Strategic Plan, Goal 1: Improve Regional Decision Making by Providing Leadership and Consensus Building on Key Plans and Policies, and Objective (a): Create and facilitate a collaborative and cooperative environment to produce forward thinking regional plans.

**BACKGROUND:**  
SCAG and the USC Sol Price School of Public Policy are pleased to invite all Regional Council members and elected officials to the 27<sup>th</sup> Annual Demographic Workshop at the California Science Center on Monday, June 13, 2016 from 7:30 AM to 3:00 PM. This year’s program, “*The Continued Rise of the Millennials?*” provides new insights and research on this important demographic group and what that means for the region’s future, including housing, employment and services.

As we approach the next census in 2020, there is a lot to report. The Census Bureau will present their experimental data collections in Los Angeles, where we have a local population that is rapidly outgrowing our stagnant housing capacity, and a burgeoning millennial generation trying to make its home. The luncheon keynote by Fernando Guerra, Director of the Leavey Center for the Study of Los Angeles at Loyola Marymount University, will also offer fresh interpretations gleaned from this spring 2016 survey. Presenters and participants will discuss what these coming changes will mean for the remainder of the decade.

# REPORT

For registration and parking arrangements for Regional Council and Policy Committee members, please contact: Tess at [REY@scag.ca.gov](mailto:REY@scag.ca.gov) or (213) 236-1908; all others, please contact John Cho at [CHOJ@scag.ca.gov](mailto:CHOJ@scag.ca.gov) or (213) 236-1847.

**FISCAL IMPACT:**

Work associated with this item is included in the current FY 2015-16 Budget under 800-0160.04.

**ATTACHMENT:**

Draft Program of the 27<sup>th</sup> Annual Demographic Workshop

**27th Annual Demographic Workshop (5-1-2016):  
The Continued Rise of the Millennials?  
Monday, June 13, 2016**

AGENDA

- AM 7:30 Registration/Continental Breakfast  
8:00 Welcome/Introductions  
**Jack Knott**, Dean, Sol Price School of Public Policy, USC  
**Hon. Michele Martinez**, Councilmember, City of Santa Ana, President, Southern California Association of Governments (SCAG), Introduced by **Hasan Ikhrata**, Executive Director, SCAG  
**James T. Christy**, Regional Director, Los Angeles Regional Office, U.S. Census Bureau
- 8:15 **2020 Census Goes Digital: Early Findings from the LA Experiment**  
**James T. Christy**, Regional Director, Los Angeles Regional Office, U.S. Census Bureau
- 8:45 **Growth and Diversity of Millennials: Is Decline Coming?**  
**Dowell Myers**, Professor and Director of the Population Dynamics Research Group, Sol Price School of Public Policy, USC
- 9:25 **Panel 1: Critical Importance of Millennials and Housing**  
**Leslie Appleton-Young**, Vice President and Chief Economist, California Association of Realtors  
**Stephen Levy**, Director, Center for the Continuing Study of the California Economy  
**Randall Lewis**, Executive Vice President and a Principal, Lewis Operating Corp  
**Glen Campora**, Assistant Deputy Director, California Department of Housing and Community Development  
**Dowell Myers (Moderator)**, Professor and Director of the Population Dynamics Research Group, Sol Price School of Public Policy, USC
- 10:40 Coffee Break  
10:50 **Panel 2: Urban Revitalization and Gentrification**  
**Mathew Glesne**, City Planner, City of LA  
**Liz Falletta**, Associate Professor, Sol Price School of Public Policy, USC  
**Jan Lin**, Professor of Sociology, Occidental College.  
**Bianca Barragan (Moderator)**, Associate Editor, Curbed LA
- PM 12:00 Working Lunch  
12:15 Luncheon Keynote Speech  
**Fernando Guerra**, Professor of Political Science and Director of Leavey Center for the Study of Los Angeles, Loyola Marymount University
- 1:15 Greetings  
**Ethan Sharygin**, Demographer, State Census Data Center, California Department of Finance
- 1:25 **Afternoon Roundtables**  
Table 1 – Exploring American FactFinder (**Jerry Wong**)  
Table 2 – State/County Population Estimates (**Phuong Nguyen**)  
Table 3 – Population Projections (**Ethan Sharygin**)  
Table 4 – Millennials and their School Choices (**Valerie Edwards & Mary Ehrental Prichard**)  
Table 5 – SCAG REVISION – Performance Monitoring Tool (**Juan Matute, Ping Chang & Michael Gainor**)
- 2:35 Takeaways of Roundtables, Questions & Answers  
3:00 **Concluding Remarks**

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# 2016 MEETING SCHEDULE

## REGIONAL COUNCIL AND POLICY COMMITTEES

<b>All Regular Meetings are scheduled on the 1<sup>st</sup> Thursday of each month; except for the month of October which is on the 5<sup>th</sup> Thursday of September* (Approved by the Regional Council 9-3-15)</b>	
<b>Executive/Administration Committee (EAC)</b>	<b>9:00 AM – 10:00 AM</b>
<b>Community, Economic and Human Development Committee (CEHD)</b>	<b>10:00 AM – 12:00 PM</b>
<b>Energy and Environment Committee (EEC)</b>	<b>10:00 AM – 12:00 PM</b>
<b>Transportation Committee (TC)</b>	<b>10:00 AM – 12:00 PM</b>
<b>Regional Council (RC)</b>	<b>12:15 PM – 2:00 PM</b>

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**Officers**  
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 Associated Governments

Immediate Past President  
 Cheryl Viegas-Walker, El Centro

**Executive/Administration Committee Chair**  
 Michele Martinez, Santa Ana

**Policy Committee Chairs**

Community, Economic and Human Development  
 Bill Jahn, Big Bear Lake

Energy & Environment  
 Carmen Ramirez, Oxnard

Transportation  
 Barbara Messina, Alhambra

**January 7, 2016**  
 (SCAG Sixth Annual Economic Summit --- in lieu of the regularly scheduled Regional Council and Policy Committees' Meetings)

February 4, 2016

March 3, 2016

April 7, 2016

**May 5 – 6, 2016**  
 (2016 SCAG Regional Conference and General Assembly, La Quinta)

June 2, 2016

July 7, 2016

**August 4, 2016 (DARK)**

September 1, 2016

September 29, 2016\*

**(Note: League of California Cities Annual Conference, Long Beach, CA, Oct. 5 - 7)**

November 3, 2016

December 1, 2016

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**DATE:** June 2, 2016

**TO:** Regional Council (RC)  
Executive/Administration Committee (EAC)  
Community, Economic & Human Development (CEHD) Committee  
Energy and Environment Committee (EEC)  
Transportation Committee (TC)

**FROM:** Huasha Liu, Director, Land Use and Environmental Planning, 213-236-1838,  
liu@scag.ca.gov

**SUBJECT:** Cap-and-Trade/Greenhouse Gas Reduction Fund: Affordable Housing & Sustainable Communities (AHSC) Program Update

**EXECUTIVE DIRECTOR'S APPROVAL:** 

**RECOMMENDED ACTION:**  
For Information Only – No Action Required.

**EXECUTIVE SUMMARY:**  
*In the second round of the Cap-and-Trade Affordable Housing Sustainable Communities (AHSC) statewide competitive grant program, twenty-one (21) project applicants in the SCAG region were invited by the Strategic Growth Council (SGC) to submit a full application out of the thirty-six (36) concept applications submitted from the region. The full applications are due to SGC on June 20, 2016. SGC plans to announce the final awards in September 2016. SCAG has formed a Cap-and-Trade Assistance Team comprised of staff and consultants to assist applicants to prepare high quality and competitive full applications.*

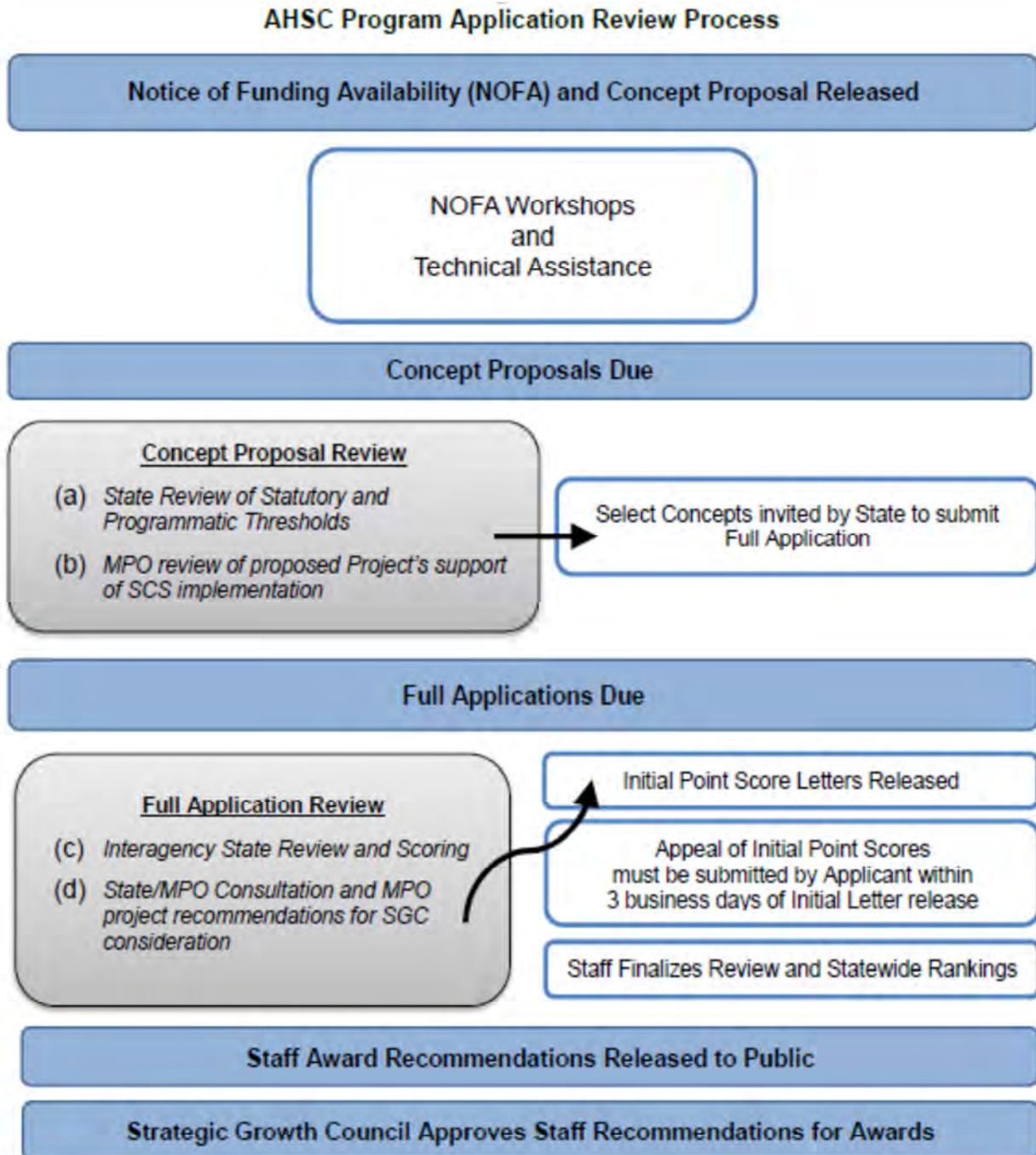
**STRATEGIC PLAN:**  
This item supports SCAG's Strategic Plan; Goal 1: Improve Regional Decision Making by Providing Leadership and Consensus Building on Key Plans and Policies; Objective a: Create and facilitate a collaborative and cooperative environment to produce forward thinking regional plans.

**BACKGROUND:**  
Through the State budget process, Cap-and-Trade auction proceeds are appropriated from the Greenhouse Gas Reduction Fund (GGRF) to State agencies and programs. The SGC is administering the competitive AHSC program, which is intended to further the regulatory purposes of AB 32 and SB 375 by investing GGRF proceeds in projects that reduce greenhouse gas emissions through more compact, infill development patterns, integrating affordable housing, encouraging active transportation and mass transit usage, and protecting agricultural land from sprawl development. For the 2015-2016 fiscal year, SGC and the California Department of Housing and Community Development (HCD) announced that \$320 million of funding would be available for the AHSC program Statewide.

SB 862 provides that SGC "shall coordinate with the metropolitan planning organizations (MPO) and other regional agencies to identify and recommend projects within their respective jurisdictions that best

# REPORT

reflect the goals and objectives of this division.” Table 1 illustrates the overall AHSC application review process, including where in the process MPO coordination takes place.



## Applications

Concept applications were due to SGC on March 16, 2016. On March 24, SGC forwarded SCAG staff thirty-six (36) concept applications to review whether the proposed project supports the implementation of the Sustainable Communities Strategy (SCS). By county, Los Angeles County was represented by twenty-four (24) submittals, followed by Ventura County with five (5) submittals, and Imperial County, Orange County, and San Bernardino County with two (2) each, and Riverside County with one (1). The total amount requested by all 36 concept applications was \$310.5 million.

The SCAG staff Evaluation Team thereafter reviewed the 36 projects and found all except one would support the implementation of the SCS. Upon review, one application was not recommended because the proposed project did not help implement the SCS. SCAG staff then provided an update of the concept application review to the CEHD Committee on April 7, 2016 and forwarded recommendations to SGC on April 12.

On May 2, 2016, SGC shared with SCAG staff the list of selected applicants invited to submit a full application. Across the SCAG region, seventeen (17) projects were initially selected. SCAG staff provided an update on the full application invitations information to the Regional Council at its May 5, 2016 meeting. On May 16, 2016, SGC announced that four (4) additional concept applications have been invited to submit a full application. Los Angeles County is represented by twelve (12) invitations, followed by Ventura County with four (4), Imperial County and San Bernardino County with two (2) each, Orange County with one (1), and Riverside County with none. The total requested funding for the twenty-one (21) projects invited to submit a full application is \$195.8 million.

Statewide, one hundred and thirty (130) concept applications requesting \$1.1 billion in funds were submitted. According to the most recent information disseminated by SGC on May 16, eighty-five (85) projects requesting a total of \$789.9 million were invited to submit a full application. While SGC has shared the number of invited projects and total amount requested by MPO, it has not publicly shared information on concept applications submitted by MPO or information on individual projects.

## Technical Assistance

SCAG has formed a Cap-and-Trade Assistance Team including twelve (12) staff members and four (4) consultant firms, with its mission to assist successful applicants to prepare high quality full applications. Technical assistance has been offered to all applicants and includes grant narrative development, greenhouse gas (GHG) reduction quantification, provision of data, partnership development, and mapping. SCAG sponsored consultation sessions with SGC and other state staff on May 23, 2016 in Los Angeles, and the majority of final applicants attended in order to maximize available support. Numerous calls and meetings with most applicants have already taken place, and additional consultations are being scheduled well in advance of the final application deadline. Moreover, SCAG is coordinating with other technical assistance providers in the region such as LA Thrives, the Annenberg Foundation, and Enterprise Community Partners to maximize benefits to regional stakeholders.

SCAG staff will review full applications and will be guided by Evaluation Criteria adopted by the Regional Council as needed at its March 3, 2016 meeting. The criteria are based on the 2012 RTP/SCS

# REPORT

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strategies, reflecting both the most recently adopted RTP/SCS at the time the AHSC Notice of Funding Availability (NOFA) was released, as well as the SCAG Sustainability Grant Program Call for Projects criteria. The approved AHSC criteria will help staff identify competitiveness of the applications, if necessary.

## Next Steps

Full applications are due to SGC on June 20, 2016. Full application review by SGC is scheduled between late-June and August 2016. Awards will be announced by SGC in September 2016. SCAG staff will provide updates to the Regional Council, Policy Committees, and Technical Working Group on the status of the applications as information becomes available.

## **FISCAL IMPACT:**

Work associated with this item is included in the Fiscal Year 2015-2016 Overall Work Program (WBS Number 16-080.SCG00153.04: Regional Assessment).

## **ATTACHMENT:**

Summary of AHSC concept and Invited Full Applicants, By Jurisdiction

Summary of AHSC Concept and Invited Full Applicants, by Jurisdiction

	Concept Applications		Invited Applicants			Invited Full ICP Applications		Invited Full TOD Applications	
City	Number of projects	Requested Funding	Number of projects	Requested Funding	% of total invited funding	Funding	%	Funding	%
Imperial County									
Calexico	1	\$8,925,301	1	\$8,925,301	4.6%	\$8,925,301	7.8%		
El Centro	1	\$7,360,132	1	\$7,360,132	3.8%	\$7,360,132	6.5%		
Los Angeles County									
Los Angeles	15	\$144,525,798	9	\$87,189,122	44.5%	\$23,078,771	20.2%	\$64,110,351	78.3%
Long Beach	2	\$34,048,734	1	\$17,723,734	9.0%			\$17,723,734	21.7%
Palmdale	1	\$12,632,161	1	\$12,632,161	6.4%	\$12,632,161	11.1%		
South Gate	1	\$2,570,520	1	\$2,570,520	1.3%	\$2,570,520	2.3%		
Baldwin Park	1	\$5,000,000	0						
Glendale	1	\$2,000,000	0						
Pasadena	1	\$5,521,890	0						
Pomona	1	\$1,100,000	0						
South El Monte	1	\$18,386,565	0						
Orange County									
Santa Ana	1	\$12,028,626	1	\$12,028,626	6.1%	\$12,028,626	10.5%		
Huntington Beach	1	\$1,724,440	0						
Riverside County									
Riverside	1	\$6,407,684	0						
San Bernardino County									
Loma Linda	1	\$15,012,624	1	\$15,012,624	7.7%	\$15,012,624	13.2%		
Montclair, Upland, Rancho Cucamonga, Fontana, Rialto, City of San Bernardino	1	\$6,598,973	1	\$6,598,973	3.4%	\$6,598,973	5.8%		
Ventura County									
Moorpark	1	\$3,721,717	1	\$3,721,717	1.9%	\$3,721,717	3.3%		
Oxnard	2	\$11,312,276	2	\$11,312,276	5.8%	\$11,312,276	9.9%		
San Buenaventura	1	\$10,777,571	1	\$10,777,571	5.5%	\$10,777,571	9.5%		
Santa Paula	1	\$800,000	0						
<b>Total</b>	<b>36</b>	<b>\$310,455,012</b>	<b>21</b>	<b>\$195,852,757</b>	<b>100.0%</b>	<b>\$114,018,672</b>	<b>100.0%</b>	<b>\$81,834,085</b>	<b>100.0%</b>

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**DATE:** June 2, 2016

**TO:** Energy and Environment Committee (EEC)

**FROM:** Marco Anderson, Senior Regional Planner, SCAG Clean Cities Coordinator, [anderson@scag.ca.gov](mailto:anderson@scag.ca.gov), (213) 236-1879

**SUBJECT:** SCAG Clean Cities Coalition Update

**EXECUTIVE DIRECTOR'S APPROVAL:** 

**RECOMMENDED ACTION:**  
For Information Only - No Action Required.

**EXECUTIVE SUMMARY:**  
*The Clean Cities Program, established by the U.S. Department of Energy and administered directly by SCAG since 2010, is designated to support locally-based and government partnerships to expand the use of vehicles operating on alternative fuels in the SCAG region. SCAG staff will provide an annual update to the Energy and Environment Committee in regard to the Coalition's recent efforts. Please note that the extended Clean Cities Program will complement the EV Charging Study jointly by SCAG and UCLA to help expedite the Governor's Executive Order of ZEV implementation goal.*

**STRATEGIC PLAN:**  
This item supports SCAG's Strategic Plan Goal 1: Improve Regional Decision Making by Providing Leadership and Consensus Building on Key Plans and Policies; Objective a: Create and Facilitate a Collaborative and Cooperative Environment to Produce Forward Thinking Regional Plans.

**BACKGROUND:**  
The Clean Cities Program was established by the U.S. Department of Energy (DOE) and designated to support locally based government/industry partnerships in the expanded use of vehicles operating on alternative fuels. The mission of the Clean Cities Program is to advance the nation's economic, environmental and energy security by supporting local decisions to adopt practices that contribute to the reductions of petroleum consumption. The Clean Cities Program carries out this mission through a network of coalitions, which develop public/private partnerships to promote alternative fuels and vehicles, fuel blends, fuel economy, hybrid vehicles, and idle reduction.

In 2010, the Regional Council directed SCAG staff to assume the lead administrative role of the Southern California Clean Cities Program. The SCAG (or Southern California) Clean Cities Coalition (CCC) coordinates the activities of both private and public sector proponents of alternative fuel vehicles (AFVs) by providing a forum to discover commonalities, collaborate on public policy, investigate opportunities for joint projects, leverage scarce resources and cooperate on promoting the benefits of AFVs throughout the region.



## **2015 ANNUAL REPORT (Stakeholder Survey) UPDATE:**

As part of its reporting to the DOE, the SCAG CCC conducts a survey of its stakeholders each year in order to gauge the use of alternative fuels in the region. SCAG received 38 responses from SCAG member cities, local jurisdictions, transit operators and private fleets. The regional survey accounted for 82,662,822 of Gasoline Gallon Equivalents (GGE) displaced.

## **PROJECT UPDATE(S):**

In coordination with other regional stakeholders and Clean Cities Coalitions, the SCAG Clean Cities program has been working on revamping its stakeholder outreach and participation. Recent project accomplishments include:

- The SCAG Clean Cities Coordinator has continued to work with partners throughout the region to pursue grant opportunities. This included working with applicants, and signing four letters of support for organizations applying the US DOE EV Everywhere Grant, a CA Energy Commission Grant application, and a Department of Defense solicitation for commercial leasing of 100% electric vehicles at Navy and Marine Corp bases in Southern California.
- Using Clean Cities funding, SCAG was also able to provide sponsorship and/or speakers at the 2015 AltCar Expo in Santa Monica, the 2015 WRCOG Advancing the Choice Expo in Riverside, the Imperial Valley Renewable Energy & Water Summit in Brawley, and the e4Advanced Transportation Center / PortTech LA Expo in Long Beach.

## **DOE RE-DESIGNATION UPDATE:**

In January 2016, the SCAG Clean Cities program was re-designated by the DOE for another three year cycle. The SCAG Clean Cities program will be due for re-designation in February 2019. The DOE recommended the SCAG Clean Cities program consider pursuing the following measures:

- Continue outreach to all jurisdictions represented by SCAG to document as much petroleum displacement from alternative fuel use, vehicle miles traveled reduction and other Clean Cities portfolio elements as possible, and to attract additional stakeholders to the coalition.
- Follow up on opportunities for DOE to train SCAG stakeholders on Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) and other tools, utilizing SCAG's webinar capabilities.
- Continue to work closely with the other Clean Cities Coalitions in Southern California and the e4Advanced Transportation Center to develop a coordinated regional approach to meeting the national Clean Cities goals.
- Recruit potential partners for the National Clean Fleets Partnership Program in the Southern California region.

**NEXT STEPS:**

In April 2016, SCAG executed its agreement with the Luskin Center for Innovation at the University of California, Los Angeles to work on a California Energy Commission (CEC) grant for \$125,000 to analyze barriers and propose solutions for increasing installation of Plug-in Electric Vehicle recharging in Multi-family Housing (referred to as Multi-Unit Dwellings by CEC). SCAG staff will leverage Clean Cities Coalition resources to conduct outreach and manage that grant opportunity.

In FY 2016-2017, the SCAG Clean Cities Program plans on preparing an inventory of Alternative Fuel Vehicle profiles for all SCAG member jurisdictions. This inventory will include information on internal fleet operations, electric charging station provisions, as well as external resident-facing policies to encourage alternative vehicle purchases.

**FISCAL IMPACT:**

Funding is included in SCAG's FY 2016-17 Overall Work Program (OWP) Budget in 267. SCG01241.04. Staff's work budget for the current fiscal year is included in the FY 2015-16 OWP in 267. SCG01241.03

**ATTACHMENT:**

PowerPoint Presentation: Clean Cities Coalition Update - June 2016

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# SCAG Clean Cities Coalition 2015 Annual Survey

Thursday, June 2, 2016

Marco Anderson  
Sr. Regional Planner



## SCAG Clean Cities Coalition

The SCAG (Southern California) Clean Cities Coalition includes parts of Los Angeles County, Orange, San Bernardino, Ventura and Imperial

- Originally designated in 1996
- Clean Cities is SCAG program component (since 2010)
- The Coalition reports to SCAG's Energy & Environment Policy Committee (EEC) & RTTAC
- 200 + stakeholders/ members
- Four other Coalitions located within SCAG region: LA City, Long Beach, Western Riverside, & Coachella Valley
- Coalition funded through US Dept of Energy (DOE) program contract and available California Energy Commission (CEC) Grant Funding



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## **Successes, Opportunities & Challenges**

- Plug-in Electric Vehicle Multi-Family Housing Implementation Strategies
- Sacramento Liaison
  - CA Energy Commission (CEC)
  - CA Public Utilities Commission (CPUC)
- Stakeholder Database Refinement & Outreach
- AltCar Expo, Santa Monica Annual Sponsorship
- SoCalGas stakeholder engagement
- Hydrogen Fuel Cell Partnership engagement

## **Successes, Opportunities & Challenges**

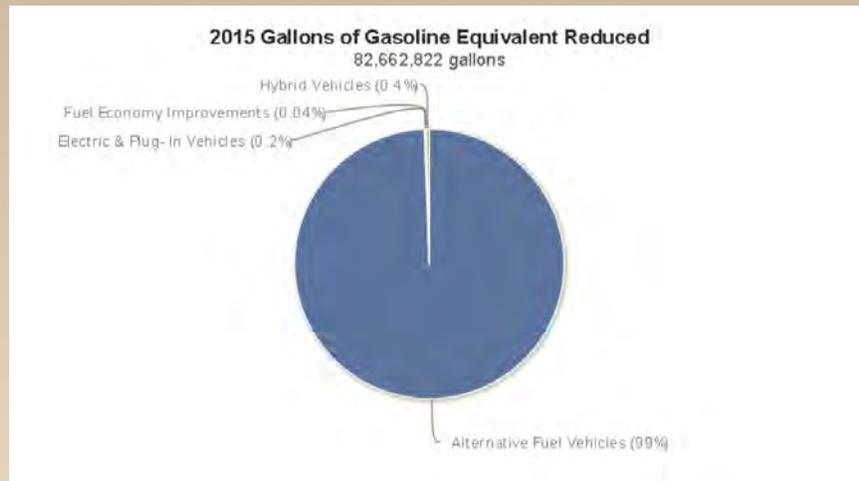
The SCAG Coalition's biggest challenges are:

- Geographic
- Providing Incentives to local jurisdictions/ fleet providers to pursue alt. fuel implementation measures
- SCAG is Policy focused, while stakeholders are operational

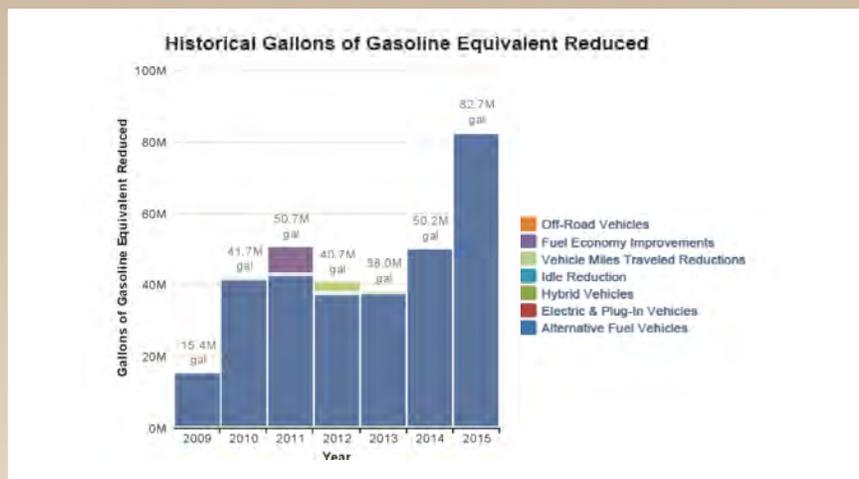
Here are the steps we're taking to deal with those challenges:

- Increased/ enhanced coordination with regional coalitions
- Program integration with agency funding directed toward energy & sustainability initiatives

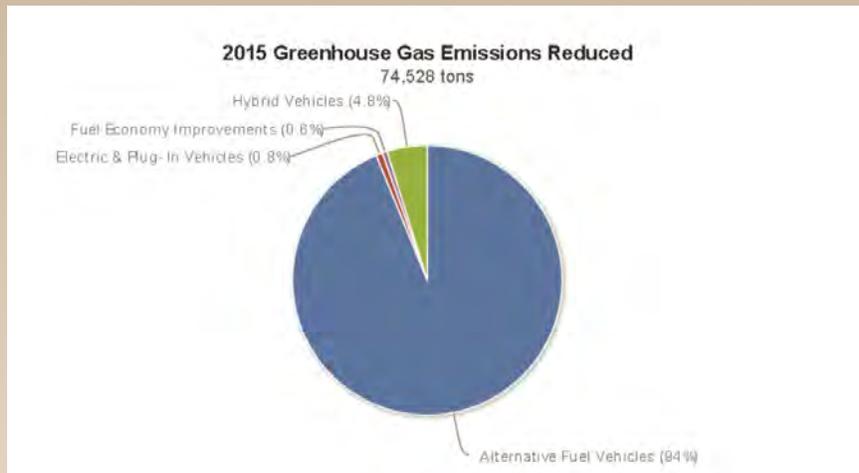
## 2015 Gallons of Gasoline Equivalent (GGe) Reductions



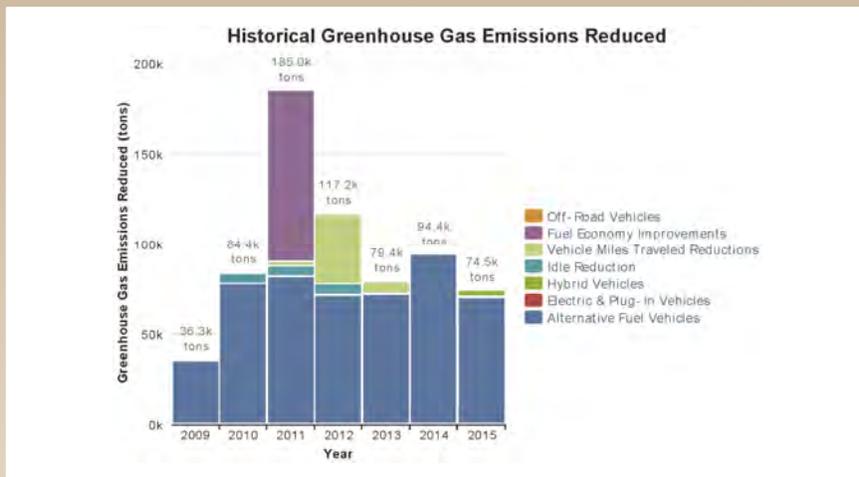
## Petroleum Displacement Trends



# 2015 Greenhouse Gas Emissions (GHG) Reductions



# GHG Reduction Trends



## **Petroleum Displacement: the Next 3 Years**

- Improve Grant Assistance:
  - Coordinate with SCAG Grant Administrators to provide application sponsorship when possible
  - Continue Partnership with e4 ATC to co-sponsor Grant Education webinars
- Partnership Coordination:
  - Coordination with Regional Coalitions
  - Develop Municipal Alt Fuel Capacity Database
  - Refine proposed SCAG Regional Charging Network
  - Develop Partnership Network for SCAG focus fuels:
    - PEV
    - Natural Gas
    - Hydrogen
- Implement proposed SCAG 2016 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) Policies

## **Next Steps**

- 2016 Survey – Solicitation begins December 2016 Survey Complete March 2017
- Upcoming Coalition Activities
  - Heavy Duty Hydrogen Fuel Cell Webinar (tbd)
  - Renewable Natural Gas Briefings
- One-on-One Stakeholder Interviews
  - Funding opportunities
  - Information distribution
  - Additional input?
  - Questions?

**Marco Anderson**  
Sr. Regional Planner  
[anderson@scag.ca.gov](mailto:anderson@scag.ca.gov)



**DATE:** June 2, 2016  
**TO:** Energy and Environment Committee (EEC)  
**FROM:** Alan Thompson, Senior Regional Planner, (213) 236-1940, thompson@scag.ca.gov  
**SUBJECT:** The Energy Network Program

**EXECUTIVE DIRECTOR'S APPROVAL:**



**RECOMMENDED ACTION:**  
For Information Only – No Action Required.

**EXECUTIVE SUMMARY:**

*Laurel Rothschild, Director of Education & Engagement at The Energy Coalition will present an overview of The Energy Network, an innovative program available at no cost to public agencies in Southern California to implement energy saving projects.*

**STRATEGIC PLAN:**

This item supports SCAG's Strategic Plan, Goal 1, Improve Regional Decision Making by Providing Leadership and Consensus Building on Key Plans and Policies; Objective c) Provide practical solutions for moving new ideas forward.

**BACKGROUND:**

The Energy Network was authorized by the California Public Utilities Commission (CPUC) in 2012 to harness the collective power of residents, businesses, and the public sector to achieve an unprecedented level of energy savings across Southern California.

For public agencies, the Energy Network Public Agency Program identifies energy saving measures and works with government staff from design through construction to help accomplish energy efficiency projects. All services provided by The Energy Network are provided at no cost, however agencies are responsible for all construction costs.

For agencies already participating in a public energy efficiency program The Energy Network can complement existing services so that goals are reached sooner.

The Energy Network services are available to the more than 700 public agencies in Southern California. Qualifying agencies include cities, counties, school districts, water districts, sanitation districts and other public agencies in a region that encompasses the counties of Imperial, Los Angeles, Orange (partial), Riverside, San Bernardino and Ventura. Other counties served outside the SCAG region include, Inyo, Mono, as well as portions of the counties of Kern, Tulare, Santa Barbara, and Kings.

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These services include:

- Energy Use Analysis
- Project Manager and Consulting Services
- Facility Energy Audit/Streetlight Feasibility Analysis
- Project Proposal, Incentives and Financing Support
- Simplified Construction Contracting
- Advisory Support during Construction
- Expedited Project Delivery Services
- Financial Advisory Services

Public agencies can begin the application process by completing a short questionnaire at <http://action.theenergynetwork.com/about-us/eligibility-enrollment/questionnaire> or contact The Energy Network directly via e-mail at [info@theenergynetwork.com](mailto:info@theenergynetwork.com) or 1-855-700-NETWORK (638-9675).

**FISCAL IMPACT:**

Not applicable – this is not a SCAG program.

**ATTACHMENTS:**

1. Regulating Energy Efficiency – A Primer on the CPUC’s Energy Efficiency Programs
2. PowerPoint Presentation: The Energy Network



California  
Public  
Utilities  
Commission

# REGULATING ENERGY EFFICIENCY



February  
2016

A Primer on the CPUC's Energy Efficiency Programs



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## I. Introduction

California has been a pioneer in Energy Efficiency since the 1970s, and has been at the forefront of mandatory energy efficient building and equipment standards and voluntary customer programs to encourage customers to use less energy. When California makes plans for new energy resources, energy efficiency is the state's first priority. There are also numerous laws requiring state agencies to increase energy efficiency in all sectors of the economy. Our programs have achieved significant energy savings. From 2010 – 2012 our voluntary customer programs, which are available to about 75 percent of Californians, saved enough electricity to power 800,000 homes for a year, and reduce carbon emissions the equivalent of taking 1 million cars off the road.

Energy efficiency in California benefits our state in a number of ways. First, energy efficiency is an integral part of California's efforts to lead the nation in fighting climate change by reducing greenhouse gas emissions. Efficiency is the cleanest form of energy we have. It also helps the economy by putting people to work and helping California residents and business owners lower their monthly utility bills. And lastly, it saves money by avoiding the need to build expensive power plants and transmission lines.

The top three reasons for California's publicly-funded energy efficiency programs are:

1. To help reduce greenhouse gas emissions
  - Energy efficiency is expected to make up 15% of the state's greenhouse gas emission reductions, according to the California Air Resource Board's *AB32 Scoping Plan*.
2. To help the economy
  - If Californian homes and businesses are paying less for energy because they're using less energy, that's more money to invest elsewhere.
3. To avoid new power plants and transmission lines

Despite the benefits, many people in California don't know much about how energy efficiency works in our state. This primer describes how energy efficiency works, how the California Public Utilities Commission (CPUC) regulates and evaluates efficiency programs, and why it's so challenging and important that we estimate efficiency savings accurately.

## II. How Energy Efficiency Programs Work in California: An Overview

California's commitment to energy efficiency has resulted in many different efficiency programs across the state. The programs span a variety of sectors encompassing residential homes and commercial buildings, large and small appliances, lighting and HVAC, industrial

manufacturers, and agriculture. Within those sectors, efficiency programs may use any number of different tools: financial incentives and rebates, research and development for energy efficiency technologies, financing mechanisms, codes and standards development, education and public outreach, marketing, and others.

Each of these programs helps California be more energy efficient, and collectively, these programs result in significant reductions in California's greenhouse gas emissions. In total, energy efficiency is expected to make up 15 percent of the state's greenhouse gas emission reduction targets.

The investor-owned utility (IOU) programs are funded by a small portion of electricity and gas rates included in customer bills, which provides over \$1 billion per year to fund IOU energy efficiency programs. These publicly-funded energy efficiency programs are usually administered by the state's four IOUs: Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), San Diego Gas & Electric (SDG&E), and Southern California Gas Company. Some programs are administered by Marin Clean Energy or through two "Regional Energy Networks" in the Bay Area and Southern California. All of the programs administered by these different entities are regulated by the CPUC to ensure they are meeting the goals and cost-effectiveness metrics the CPUC is statutorily required to set for the IOU efficiency portfolios.

### III. The CPUC's Role

As the public watchdog of these funds, it is the CPUC's job to ensure that the money is well spent. It is critical that this money pay for technologies and strategies that reduce energy usage and that we get the most "bang for the buck" for the funds being spent. Specifically, the CPUC is mandated by the legislature (Public Utility Code Section 454.5) to: "meet unmet resource needs with all available energy efficiency and demand reduction that is cost-effective, reliable, and feasible." To do that, the CPUC sets goals for energy efficiency

programs and directs the IOUs to design programs that motivate customers to take energy efficiency actions that wouldn't have happened without the program.

The CPUC also measures the energy savings and cost effectiveness of energy efficiency programs. Measuring energy efficiency is very complicated by its nature; it depends on millions of small, hard-to-observe actions being taken by Californians across the state. Assessing the impact of all those actions and figuring out which actions would or

#### Building Codes Includes:

- Windows
- Insulation
- Heating and Air Conditioning Systems
- Lighting

#### Appliance Standards Include:

- Kitchen appliances
- TVs and Other Electronics
- Water heaters
- Faucets

would not have been taken without the efficiency program is difficult.

The CPUC's Energy Efficiency Branch, with a staff of about 25 analysts plus a team of independent evaluation consultants, assesses how much energy these programs save and how much those savings cost. This information helps inform the CPUC's Commissioners so they can determine how best to allocate California's large, publicly funded energy efficiency budget.

## IV. Appliance and Building Codes

One of the largest factors in California's energy efficiency success story is progressive appliance codes (Title 20) and building codes (Title 24). Every few years, the state issues a new set of rules and regulations that are designed to reduce energy usage while increasing customers' comfort, safety, and health. The CPUC authorizes the IOUs to advocate for energy saving codes and standards at both the state and Federal level. This is because the IOUs are on the front lines of energy savings programs, and are well positioned to advise state agencies to adjust building and appliance codes. The CPUC also authorizes the IOUs and local governments to implement programs that assist builders with building codes implementation and compliance improvement.

Building codes are especially relevant for new construction or major remodeling jobs – times when contractors are required by law to build to code. Code requirements can also be triggered by certain smaller events too, such as equipment replacement or other smaller projects like Heating, Ventilation and Air Conditioning (HVAC) or lighting retrofits.

Some of the technologies that eventually become building code are first introduced to customers through energy efficiency programs that use incentives and rebates funded by public money. At first, a technology determined to be a good investment is offered to customers along with a rebate to encourage customers to purchase it. The rebate may be offered directly to the customer or through an upstream payment to a manufacturer, distributor, or retailer, which lowers the retail price of the technology to the customer. This rebate is usually part of the initial energy efficiency program for that product.

After that technology has reached large market penetration and the costs are reduced, it may be adopted in the building or appliance code, meaning it is now required by law. For example, since the 1970s, there has been a series of refrigerator incentives to encourage more efficient refrigerators. These more efficient refrigerators were then adopted in the appliance code. The average refrigerator today uses 75 percent less energy than one in 1975 (see [http://aceee.org/files/proceedings/1980-82/data/papers/1982\\_020.pdf](http://aceee.org/files/proceedings/1980-82/data/papers/1982_020.pdf)).

Incentive payments for customer programs are gradually reduced as a technology becomes mainstream, and when a technology is required by code, the incentive is discontinued. Generally speaking, continuing to incentivize something that is required would be like using the public's money to pay drivers to drive the speed limit. IOUs, however, do have a mechanism to provide customers with richer incentives for replacing

inefficient equipment with long lives, provided the utility can prove that its program was responsible for the “early retirement” of that equipment, similar to Cash for Clunkers. The CPUC is currently exploring ways to expedite replacement of old, existing equipment that is below code.

## V. How the CPUC Sets Energy Efficiency Goals

The CPUC sets energy savings goals through a periodic analysis called the “Potential and Goals” study. This rigorous study, which is conducted by an independent consulting firm, assesses all of the different technologies and strategies that the utilities could utilize in their energy efficiency programs. The study uses rigorous engineering calculations and policy analysis to determine potential energy efficiency savings. It also assesses the cost effectiveness of those different strategies. The CPUC then uses the findings from this study to set the energy efficiency savings goals for the utilities.

## VI. The Importance of Developing Accurate Energy Efficiency Savings Estimates

The CPUC, the California Independent System Operator, and the California Energy Commission (CEC) use energy efficiency savings that result from Codes and Standards and from the IOUs’ voluntary energy efficiency programs to plan for future energy needs in order to keep the lights on. This means that when these agencies plan for future electricity generation, renewable energy, and electrical transmission lines, they include projections of the likely energy savings that will come from energy efficiency.

Relying on energy efficiency savings to avoid construction of new energy resources is a tricky process. If a state agency approves a power plant that has a capacity of 500 megawatts (enough to power about 200,000 homes), you can count on those 500 megawatts being available when the power plant is constructed. With energy efficiency we are counting on the promise of energy savings that might rely on the actions of thousands or even millions of individual customers. If future energy efficiency saving assumptions are used to avoid construction of new energy resources, it’s critical that our forecast of energy savings is accurate.

In addition to forecasting, the CPUC also evaluates energy efficiency programs to ensure that the savings claimed by the utilities are real and accurate. Overestimating energy savings can have negative consequences for ratepayers and for California’s climate change goals and energy security. Accurate and trustworthy forecasts and evaluations help make energy planners as comfortable relying on efficiency savings as they are relying on new power plants.

Costs	Benefits
<ul style="list-style-type: none"> <li>• Administration</li> <li>• Equipment Paid for by the Program and Customers</li> <li>• Shareholder Incentives</li> <li>• Ongoing Equipment Maintenance Costs</li> </ul>	<ul style="list-style-type: none"> <li>• Avoided Energy and Infrastructure Costs</li> <li>• Environmental</li> <li>• Customer Incentives</li> <li>• Tax Credits</li> </ul>

Generally, the program incentives only pay for part of the efficiency action taken or product purchased, and the customer is expected to make up the difference. While it is not easy to get customers to spend money on energy efficiency improvements, it is easy to exaggerate energy efficiency savings, as indicated by the 30 percent discrepancy between the results the IOUs report and those of our independent evaluations. These savings must go beyond the savings that would have occurred as a result of the natural turnover of equipment, technology advances, and customers' own actions. To ensure we don't overestimate how much energy is saved, we must accurately verify the utilities' energy savings claims.

## VII. How Energy Efficiency is Evaluated

Four percent of the annual energy efficiency budget of approximately \$1.4 billion is dedicated to field-based impact evaluations, market assessment, and other program evaluation activities. Approximately half of this funding is spent by the utilities and the CPUC on market studies, process evaluations, and other studies intended to support existing and future programs. The other half is spent on program impact evaluations (our evaluation research plan is at <http://www.cpuc.ca.gov/General.aspx?id=4373>). Evaluators are hired through a competitive process, and are among the top energy efficiency evaluators in the field. Per legislative requirement, the CPUC evaluators use field research and current market conditions to verify the utilities' claimed savings, estimate actual program energy savings, and calculate a critical indicator of performance: cost effectiveness.

Cost effectiveness is simply a comparison of a program's costs versus its benefits. The following table shows some examples of what the CPUC evaluators weigh when calculating cost effectiveness. The cost effectiveness policies of the CPUC are outlined in the California Standard Practice Manual ([www.cpuc.ca.gov/General.aspx?id=5267](http://www.cpuc.ca.gov/General.aspx?id=5267)), a pioneering efficiency evaluation guide developed in California and used nationwide (National Action Plan for Energy Efficiency, Understanding Cost-Effectiveness of Energy Efficiency Programs, Nov. 2008).

While the concept of evaluating cost effectiveness is simple, the execution is not. Calculating costs and benefits can be a matter of perception and accounting, which means there are often disputes over the overall cost effectiveness of a program. To illustrate this point, imagine an energy efficiency program that pays someone to buy a new washing machine. The benefits of that program depend on how often that household actually uses

the washing machine. The difference between two loads per week and five loads per week, spread over a range of 10,000 households, can really add up.

Another common evaluation challenge deals with questions of who would have upgraded to energy efficiency without the program. For example, if a program offers a \$100 rebate for a dishwasher, but half of the participating households were going to purchase the efficient dishwasher without the rebate, the benefit-cost calculations must be adjusted. However, it is difficult to determine with certainty how many people would have upgraded without the rebate. Understanding those details and getting accurate assessments can pose real challenges. CPUC field assessments attempt to understand the true program costs and benefits, but these assessments are sometimes the subject of debate.

## VIII. How We're Doing

Evaluation results from the 2010 – 2012 energy efficiency portfolio are summarized below (the evaluations of 2013 – 2015 program activities are underway), and full results, and the detailed data sets, are available on the CPUC's website at [www.cpuc.ca.gov/General.aspx?id=6391](http://www.cpuc.ca.gov/General.aspx?id=6391):

- 7,745 gigawatt-hours of electricity was saved, which is enough to power 800,000 homes for a year. California also saved 6,497 gigawatt-hours of electricity from 2006 to 2008.
- Energy efficiency savings offset nearly 1,300 megawatts of peak summertime energy usage.
- From 2010 to 2012, energy efficiency in California saved 170 million therms of natural gas.
- CO<sub>2</sub> emissions were reduced by 5.3 million tons, the equivalent of taking about 1 million cars off the road, compared to 2006 to 2008 with just over 4 million tons of CO<sub>2</sub> emission reductions.
- Every dollar invested in energy efficiency programs not related to building codes and appliance standards returned \$1.04 in savings.
- Every dollar invested in building code and appliance standard advocacy returned \$3.64 in savings.
- Energy efficiency created overall savings of \$3.3 billion for California's ratepayers. Residential programs saved an average of \$192 per household from 2010-2012.

- Residential energy efficiency programs saved an average of \$192 per household from 2010-2012.

Every dollar invested in energy efficiency programs not related to building codes and appliance standards returned \$1.04 in savings.

- Utilities spent approximately \$2.5 billion of an approved budget of \$3.1 billion.

In addition, these impressive savings evaluations showed that the programs were cost effective and that the benefits exceeded the costs. These results are evidence that a smart investment in energy efficiency pays off.

### Additional Resources

The energy efficiency section of the CPUC website has programmatic and policy information: [www.cpuc.ca.gov/egyefficiency/](http://www.cpuc.ca.gov/egyefficiency/)

The energy efficiency statistics website has current evaluation data filed by the utilities, broken down by utility or by program, as well as regulatory and evaluation information: <http://eestats.cpuc.ca.gov/>

California Measurement Advisory Council has full evaluation reports of energy efficiency programs: [www.calmac.org/](http://www.calmac.org/)

For more information, contact:

Rory Cox, Energy Efficiency Analyst, 415-703-1093, [rory.cox@cpuc.ca.gov](mailto:rory.cox@cpuc.ca.gov)

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## Appendix: Frequently Asked Questions

This section clarifies important questions regarding the most common misinformation related to CPUC oversight of the energy efficiency portfolio.

What is the ex-ante review process and why is it so important?

The CPUC uses a process called an “ex-ante review” to assist the IOUs in developing accurate estimates of energy efficiency savings before the efficiency program or measure is put into place. This process is intended to help ensure that the IOUs’ savings claims and the CPUC’s evaluated savings are relatively close after the efficiency program or measure has been implemented and evaluated. Ex-ante review can create a longer regulatory process, but it helps California avoid disagreements between the IOUs and the CPUC over energy efficiency savings after the programs are implemented, when it is too late to do anything about savings estimate discrepancies.

How does the CPUC’s ex-ante review process work and does it have any downside?

Before IOUs can implement an energy efficiency program, they must submit a proposal to the CPUC that includes their plan and their energy savings estimates. For proposals that are complicated or new (about one in every four proposals), a small team of CPUC staff and consultants will perform an ex-ante review to assess the proposed savings estimates. Most often, the review looks at the energy efficiency program’s proposed technologies to determine whether a typical customer will actually realize the energy savings the IOUs predict will occur.

One downside of the ex-ante review process is that it creates a longer regulatory review process to approve a new energy efficiency program. Sometimes there are delays in this process from the IOU or the CPUC. This is a relatively new and evolving process and CPUC and IOU staff are working together to improve it.

Evaluation, Measurement, and Verification (EM&V) seems challenging and expensive. How much ratepayer money is spent on EM&V?

EM&V, which also includes strategic planning and policy research, makes up four percent of the entire statewide energy efficiency budget. Impact evaluation is about half of the EM&V budget, or two percent of the overall budget. The other half is spent on identifying energy efficiency potential, understanding market conditions, and improving current program delivery methods. The CPUC manages 72.5 percent of the evaluation portfolio and the investor owned utilities manage 27.5 percent. The joint EM&V plan outlines all the studies planned by sector and cross cutting support (our evaluation research plan is posted at [www.cpuc.ca.gov/General.aspx?id=4373](http://www.cpuc.ca.gov/General.aspx?id=4373)).

Impact evaluation, while only using two percent of the overall statewide budget, allows the CPUC to do field research by installing measurement equipment and talking to Californians about their energy efficiency savings. Most importantly, it allows the CPUC to assess the effectiveness of and make improvements to a \$1 billion per year program.

The CPUC evaluations are transparent, solicit public input on methods and draft results, and are contracted through a competitive bid process that complies with current state contracting requirements.

EM&V results are significantly less contentious than they have been in the past, due in part to the open processes adopted by the CPUC in 2010.

A natural level of contention is to be expected. The purpose of impact evaluations is to verify savings after an intervention has happened in the field. They offer new information to consider in estimating savings in addition to verifying calculations. Results are intended to update estimates, some of which are in the control of the implementer and some which are not, but they all are intended to represent the best available information of the resource available from the intervention now and over time. Some of the most vocal critics of the CPUC's evaluation work are individuals representing firms whose programs' savings were reduced based on the ex-ante review process or had poor results in impact evaluations. Thus it is important that the CPUC conduct its own EM&V review, and is why the CPUC took on this role in 2005. Overestimating energy savings can have negative consequences for ratepayers and for California's climate change goals and energy security.

While some stakeholders believe the CPUC's evaluation work is overly detailed, others criticize the CPUC for not being sufficiently rigorous. This may be the result of trade-offs needed to deliver the results in a timely and comprehensive manner or the fact that most programs are offered to all customers, which eliminates the opportunity to create a "control group." Overall, the wide range of challenges associated with measuring how much a program caused something not to happen (the challenge we call the counterfactual) is the core discussion for evaluation practitioners, stakeholders, and policy-makers. The balance of priorities and new methods to manage rigor, timing, and cost is an ongoing public debate at the CPUC.

Are California's standards for evaluations higher than other places?

Determining energy savings is part art and part science. The current state of impact evaluation represents decades of development and adjustment of evaluation techniques and practices. There is nothing particularly unique or exceptional about California's protocols. In fact, the methods from the CPUC's adopted evaluation framework and protocols, which were published in 2006, have served as the foundation for evaluation protocols used in other jurisdictions, including the Department of Energy's Uniform Methods (<http://energy.gov/eere/about-us/ump-home>).

Why does it take so long to complete evaluations?

Three key drivers stand behind the long timeframe that EM&V reporting requires:

1. Projects need to be finished before they can be assessed. Effective EM&V requires multiple site visits and many data points, so the evaluation process cannot begin until multiple participants complete their projects, and the savings claims have been

submitted to the CPUC. Once the information is submitted the sample design and site visit planning can begin.

2. In order to find statistically significant results, the CPUC needs to collect a large enough sample of reliable data. Samples are targeted and prioritized around expected savings and high uncertainties. Ideally, EM&V will look at a representative number of completed applications, which means many site visits and much data collection. Additionally, evaluations need to assess results over a representative amount of time. Seasonal variation and operations mean that field measurement and tracking needs to capture that information to accurately review the projected savings. While this means increasing the time EM&V takes, it also means better, more reliable information.
3. Outside forces can also play a role in slowing down the EM&V process. This could include the stakeholder comment and engagement process, an integral part of CPUC's transparency for review of methods and results, IOUs not meeting deadlines to provide requested data, and project participants and implementers not cooperating or responding slowly when the CPUC requests to conduct site visits.

What is the CPUC doing to improve EM&V timeliness?

The CPUC is working on a number of ways to improve the timeliness of its evaluations. One way is to embed measurement and verification into program design. Improving evaluation readiness can ensure data collection is focuses on key information gathered from customers at the time of implementation. The CPUC has delivered important interim results to IOUs and other program implementers so they can anticipate changes that may be needed based on final studies. The CPUC has also implemented a new Energy Saving Performance Incentive schedule, which requires ex-post evaluation values approximately a year and a half after program implementation.

Lastly, the CPUC is considering a new regulatory model called the Rolling Portfolio Cycle that, if adopted, will target the spring of every year for publishing results, and the fall for planning the next round of research. Lastly, the CPUC is working to streamline data requirements and embed real-time data collection into program designs. All these initiatives should help make evaluations more timely and effective.

How does the CPUC balance energy savings goals with its mandate to protect ratepayer dollars?

As noted in the body of this document, it is difficult to get people to spend money on efficiency measures whose benefits are received over the life of the measure and can be masked by other factors that result in utility bill changes. On the other hand, people who are already predisposed to purchase efficiency measures are by and large perfectly willing to accept a rebate that reduces the cost of the product they were already planning on purchasing. Consequently, an important challenge of efficiency programs design and implementation is to tip program participation towards customers who wouldn't otherwise

adopt the programs' efficiency measures and, when feasible, away from customers who already intend to purchase the measure.

Consequently, current CPUC policy encourages utilities to reduce "free ridership," but it also recognizes that utility marketing and education programs may be contributing to free ridership by creating a more informed customer base. To acknowledge this tension, the energy efficiency goals that the CPUC currently sets for the utilities are gross savings goals. Free ridership comes into play in two other areas – in determining portfolio cost effectiveness and for calculating the IOUs' shareholder incentives.

The reason net savings (those savings that occurred solely because of an energy efficiency program, and that wouldn't have happened on their own) are important for the cost-effectiveness test is best understood in the extreme (i.e., nearly 100 percent free ridership) – if the IOU energy efficiency programs were providing rebates almost entirely to customers who would have taken the measure anyway, then a gross-based (the total savings) cost effectiveness test would indicate a highly cost-effective portfolio that, in reality, was really just transferring rebate dollars from non-participants to participants and wasting all of the associated portfolio administration costs. For the utility shareholder incentive, since the net to gross ratio is a measure of utility program impact, it seems entirely appropriate to reward utility shareholders based on the ability of their energy efficiency programs to induce more savings than would have occurred without the programs.

It's important that our evaluations measure what energy savings happened because of a specific energy efficiency program. Specifically, our evaluations are designed to parse out the savings that would have happened without the program. For instance, if an old motor that needed replacing because it's not performing well is replaced with a new, efficient one that receives a rebate for being incentivized, our evaluations are designed to make that distinction.

- Less than 25 percent of the impact evaluation budget is spent on determining attribution – which means that less than 0.5 percent of the total portfolio budget is used to determine the net impacts programs are having on total savings.
- It is hard to reconcile the limited ways in which attribution impacts the portfolios and the minimal amount of resources devoted to its study with the high level of focus it receives from critics of the EM&V process. Notably, the 2010-2012 impact evaluations resulted in about a 6 percent net savings adjustment compared with the net savings the utilities reported using the portfolio default net-to-gross ratios. The rest of the difference between evaluated and reported was in the IOU claims based on default values.

Should measures that meet building or appliance codes receive incentives?

Many stakeholders worry that the combination of the CEC's increasingly stringent code requirements and the CPUC policy of estimating efficiency savings using a "code baseline,"

rather than a “current consumption baseline,” is resulting in a lot of old, inefficient equipment not being replaced. This is also known as stranded savings. Addressing these stranded savings was the intention of Assembly Bill (AB) 802, which will be enacted into law in 2016.

As a result of AB 802, the CPUC and CEC are currently reconsidering their policies on energy efficiency baselines. Here are some of the important factors being considered in the implementation of AB 802:

- Current policy already allows for the use of a current consumption baseline for some or all of an efficiency measures savings under appropriate circumstances. In fact, the CPUC estimates that as much as 40 percent or more of the measures in the current energy efficiency portfolio are credited in the existing conditions baseline.
- An across-the-board current consumption baseline policy will be simpler to implement and much easier for everyone to understand than the current policy. On the other hand, it comes with a serious risk as an across-the-board policy change is adopted, then IOUs are likely to focus on customers and equipment that will probably adopt energy efficiency with or without the programs. That is because, by definition, those customers are the easiest to target – they’ll almost certainly say “yes” to an upgrade. This means that those stranded savings would still not be captured and energy efficiency savings claims would be significantly less accurate in terms of measuring program effectiveness.
- As “big data” from new technologies like Smart Meters become more common and easier to use, the need to simplify energy efficiency measurement rules may lessen. It should become easier for program administrators, customers, and the CPUC to utilize data to create an effective, efficient, and easy to understand system for modeling and calculating energy efficiency savings.
- The CPUC could use this opportunity to determine where current policy is creating a “stranded savings” problem and apply a “current consumption baseline” policy to those targeted efficiency projects.

Are the IOUs delivering energy savings?

Yes! Despite disputes over the exact amount of savings, energy efficiency programs are unquestionably creating real and significant energy savings for California. This is backed up by IOU evaluations and CPUC evaluations.

How is energy efficiency considered in energy demand forecasting?

Periodically, the staff experts of the CPUC, the CEC, CAISO, and others convene the Demand Analysis Working Group (DAWG). The members of DAWG bring their expertise in the following areas:

- Inputs to and development of demand forecasts

- Modeling assumptions and techniques used to produce the forecasts
- Approaches for ensuring transparency
- Uses for demand forecast results

Of particular importance to the DAWG are methods and approaches for accounting for energy efficiency savings in projections made to decide what power plants and transmission lines will be needed in the future. These include 1) energy efficiency and demand response — the first resources in the state's energy procurement loading order — and 2) customer-side distributed generation.

The findings and the work of DAWG members heavily influence the energy efficiency forecasts that are published in the CEC's Integrated Energy Policy Report, which in turn informs the CPUC's Long Term Procurement Plan where we authorize new power plants.

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## Introduction

### The Energy Coalition

- 501(c)3 non-profit
- Over 40 years experience

Design and implement strategies that transform energy use, generate capital and inspire people to take sustainable energy actions

1

Energy Strategies

2

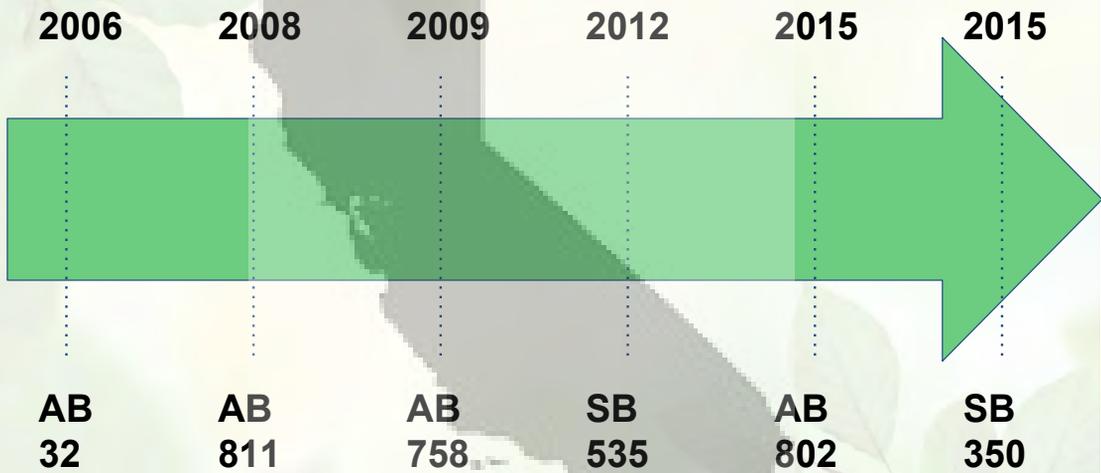
Education & Engagement

3

Policy & Leadership



## Ten Years of State Energy Policy



public agencies taking action to save energy

## What is The Energy Network?



The program is administered by the County of Los Angeles and funded by California utility ratepayers under the auspices of the CPUC



public agencies taking action to save energy

# What is The Energy Network?

The Energy Network was created to harness the collective power of residents, businesses and the public sector to achieve an unprecedented level of energy savings across Southern California

<p><b>residents</b></p>  <p>For information about our energy upgrade solutions for residential properties</p> <p><a href="#">RESIDENTS CLICK HERE</a></p>	<p><b>businesses</b></p>  <p>For information about our energy upgrade and financing solutions for commercial and multifamily properties</p> <p><a href="#">BUSINESSES CLICK HERE</a></p>	<p><b>public agencies</b></p>  <p>For information about our one-stop energy efficiency solution for public agencies</p> <p><a href="#">PUBLIC AGENCIES CLICK HERE</a></p>
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*public agencies taking action to save energy*

# What is the Public Agency Program?

**public agencies**



For information about our one-stop energy efficiency solution for public agencies

[PUBLIC AGENCIES CLICK HERE](#)

- Energy efficiency one-stop solution for public buildings and assets
- Provides a range of technical and support services
- Unbiased third-party expertise
- All at no-cost



*public agencies taking action to save energy*

# Goals and Objectives

- Projects Completed - Energy Savings
- Customer Satisfaction
- Program Expansion
- Disadvantaged/Underserved Communities
- Expertise & Capacity
- Workforce Development
- Alignment with State Goals & Strategies



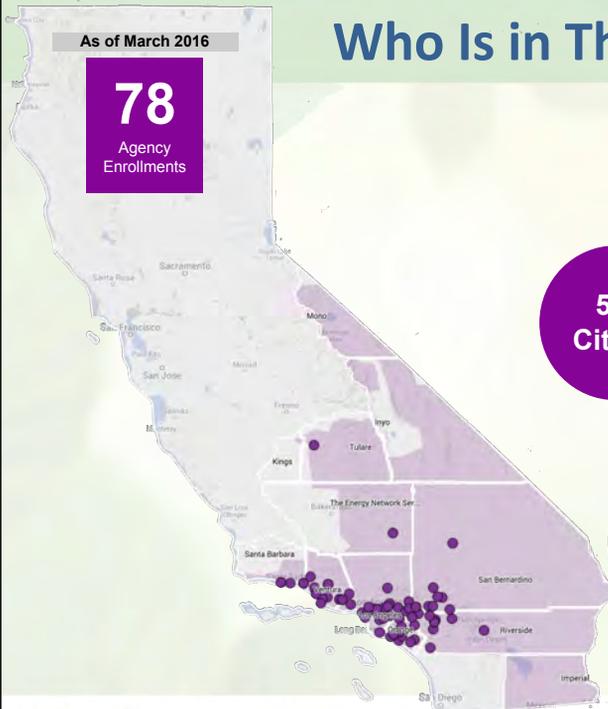
public agencies taking action to save energy

# Who Is In The Energy Network?

As of March 2016

**78**

Agency Enrollments



**2**  
Counties

**50**  
Cities

**15**  
Water Agencies

**78**  
Agencies

**4**  
School Districts

**7**  
Special Districts



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# Local Government Collaboration



## Local Government Partnerships

- Ventura County Energy Leader Partnership
- South County Energy Efficiency Partnership
- Community Energy Partnership
- Orange County Cities Energy Partnership
- Valley Innovative Energy Watch Partnership
- Kern Energy Watch Partnership
- Desert City Energy Partnership
- Western Riverside Energy Leader Partnership
- Gateway Cities Energy Leader Partnership
- High Desert Energy Leader Partnership
- North Orange County Cities Energy Partnership



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# Why Join The Network?



***What is your energy bill costing you?***

***What projects have you delayed?***

***How many resources have you not hired due to lack of budget?***



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## Why Join The Network?



### *Maximize...*

- Agency Value
- Opportunities

### *Minimize...*

- Effort and Complexity
- Costs of Delay



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## What Can The Network Do For Your Agency?

### A full range of energy efficiency services:

- Project management
- Energy use analysis
- Energy audits
- Project design and specifications
- Construction management support
- Expedited construction
- Financial services
- Energy management tools
- Objective third party review



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# *What Has The Network Done for Other Agencies?*



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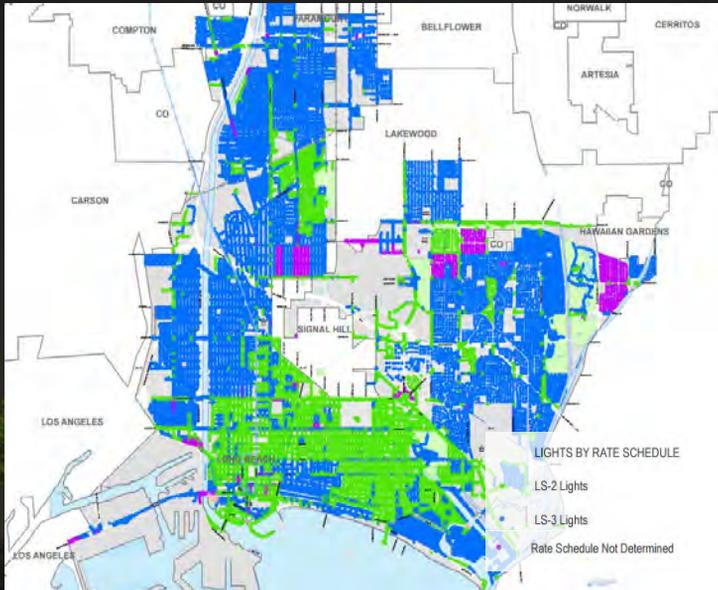
## **Areas of Expertise**

- **Lighting**
- **Mechanical**
- **Streetlights & Outdoor Lighting**
- **Water & Wastewater**



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# City of Long Beach - Street Light Retrofit



- Retrofit of 25,070 Fixtures
- 10% overall energy reduction!
- Over \$15 million estimated savings over project lifetime
- Over \$3 million in utility incentives
- \$4.2 million Utility 0% On-Bill Financing
- Utilizing Port Mitigation Grant Funds for Phase 1
- Estimate construction complete by Mar 2017



# City of Barstow



## Beyond Typical EE Measures

- Industrial Assessment Center (SDSU + DOE)
  - Wastewater Treatment Specialists
- Water Infrastructure System Efficiency (SCE)
  - Water System Optimization Specialists

## 5 Projects - Construction Completed in 2015

- High Standard Oxygen Transfer Efficiency Diffusers
- Pump Overhauls - Influent and Reverse Activated Sludge
- VFD Set-Point Optimization

563,334 kWh Saved  
\$15k Incentives

## What is The Energy Network?

The Energy Network is a program that strives to achieve an unprecedented level of energy savings across Southern California by helping public agencies identify and implement projects

# Collective Achievements

*Together, Agencies in The Network  
have Collectively Achieved...*



20K Tons of  
Greenhouse Gas  
Avoided



658  
Jobs Created



\$61M  
Construction Value



51M  
kWh Savings



*public agencies taking action to save energy*



## Questions?

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[lrothschild@energycoalition.org](mailto:lrothschild@energycoalition.org)