



SOUTHERN CALIFORNIA  
ASSOCIATION OF GOVERNMENTS  
900 Wilshire Blvd., Ste. 1700  
Los Angeles, CA 90017  
T: (213) 236-1800  
[www.scag.ca.gov](http://www.scag.ca.gov)

#### REGIONAL COUNCIL OFFICERS

President

**Bill Jahn, Big Bear Lake**

First Vice President

**Randon Lane, Murrieta**

Second Vice President

**Rex Richardson, Long Beach**

Immediate Past President

**Alan D. Wapner, San Bernardino  
County Transportation Authority**

#### COMMITTEE CHAIRS

Executive/Administration

**Bill Jahn, Big Bear Lake**

Community, Economic &  
Human Development

**Peggy Huang, Transportation  
Corridor Agencies**

Energy & Environment

**Linda Parks, Ventura County**

Transportation

**Cheryl Viegas-Walker, El Centro**

## REGULAR MEETING

# ENERGY AND ENVIRONMENT COMMITTEE

*Thursday, September 5, 2019*  
*10:00 a.m. - 12:00 p.m.*

### SCAG MAIN OFFICE

**900 Wilshire Blvd., Ste. 1700**

**Policy A Meeting Room**

**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 - Energy and Environment Committee are also available at: [www.scag.ca.gov/committees](http://www.scag.ca.gov/committees)

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.

This Page Intentionally Left Blank



## ENERGY AND ENVIRONMENT COMMITTEE AGENDA

---

### EEC - Energy and Environment Committee *Members – September 2019*

1. **Sup. Linda Parks**  
EEC Chair, Ventura County
2. **Hon. David Pollock**  
EEC Vice Chair, Moorpark, RC District 46
3. **Hon. Ana Beltran**  
Westmorland, ICTC
4. **Hon. Margaret Clark**  
Rosemead, RC District 32
5. **Hon. Robert Copeland**  
Signal Hill, GCCOG
6. **Hon. Maria Davila**  
South Gate, GCCOG
7. **Hon. Ned Davis**  
Westlake Village, LVMCOG
8. **Hon. Paula Devine**  
Glendale, AVCJPA
9. **Hon. Jordan Ehrenkranz**  
Canyon Lake, WRCOG
10. **Hon. Mike Gardner**  
Riverside, WRCOG
11. **Hon. Sandra Genis**  
Costa Mesa, OCCOG
12. **Hon. Shari Horne**  
Laguna Woods, OCCOG
13. **Hon. Diana Mahmud**  
South Pasadena, SGVCOG
14. **Hon. Judy Mitchell**  
Rolling Hills Estates, RC District 40
15. **Hon. Toni Momberger**  
Redlands, SBCTA

---

#### OUR MISSION

*To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.*

#### OUR VISION

*Southern California's Catalyst for a Brighter Future*

#### OUR CORE VALUES

*Be Open | Lead by Example | Make an Impact | Be Courageous*



## ENERGY AND ENVIRONMENT COMMITTEE AGENDA

---

- 16. Hon. Cynthia Moran**  
Chino Hills, SBCTA
- 17. Hon. Greg Morena**  
Santa Monica, WSCCOG
- 18. Hon. Judy Nelson**  
Glendora, SGVCOG
- 19. Hon. Oscar Ortiz**  
Indio, CVAG
- 20. Hon. Jim Osborne**  
Lawndale, SBCCOG
- 21. Sup. Luis Plancarte**  
Imperial County
- 22. Hon. Carmen Ramirez**  
Oxnard, RC District 45
- 23. Hon. Greg Raths**  
Mission Viejo, OCCOG
- 24. Hon. Deborah Robertson**  
Rialto, RC District 8
- 25. Hon. Meghan Sahli-Wells**  
Culver City, RC District 41
- 26. Hon. Rhonda Shader**  
Placentia, Pres. Appt., Member at Large
- 27. Hon. Emma Sharif**  
Compton, RC District 26
- 28. Hon. Sharon Springer**  
Burbank, SFVCOG
- 29. Hon. John Valdivia**  
San Bernardino, SBCTA
- 30. Hon. Edward Wilson**  
Signal Hill, GCCOG
- 31. Hon. Bonnie Wright**  
Hemet, WRCOG

---

### OUR MISSION

*To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.*

### OUR VISION

*Southern California's Catalyst for a Brighter Future*

### OUR CORE VALUES

*Be Open | Lead by Example | Make an Impact | Be Courageous*



# ENERGY AND ENVIRONMENT COMMITTEE AGENDA

Southern California Association of Governments  
900 Wilshire Boulevard, Suite 1700 – Policy A Meeting Room  
Los Angeles, California 90017  
**Thursday, September 5, 2019**  
**10:00 AM**

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

## **CALL TO ORDER AND PLEDGE OF ALLEGIANCE** *(The Honorable Linda Parks, 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 Public Comment Card to the Assistant prior to speaking. Comments will be limited to three (3) minutes per speaker. The Chair has the discretion to reduce the time limit based upon the number of speakers and may limit the total time for all public comments to twenty (20) minutes.

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

#### **CONSENT CALENDAR**

##### Approval Item

- 1. Minutes of the Meeting - August 1, 2019 Page 7

##### Receive and File

- 2. September is Pedestrian Safety Month Page 13
- 3. Connect SoCal Job Center Strategies Page 15
- 4. EAC Retreat Housing Discussion Follow-Up Page 27

#### **INFORMATION ITEMS**

- 5. Connect SoCal Electric Vehicle Strategy 30 mins. Page 30  
*(Marco Anderson, Program Manager, SCAG)*
- 6. Transportation Safety Element in Connect SoCal 20 mins. Page 46  
*(Hina Chanchlani, Assistant Regional Planner, SCAG)*
- 7. Connect SoCal Goods Movement Environmental Strategy 30 mins. Page 57  
*(Alison Linder, Ph.D.; Senior Regional Planner, SCAG)*

#### **CHAIR'S REPORT** *(The Honorable Linda Parks, Chair)*

---

##### **OUR MISSION**

To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.

##### **OUR VISION**

Southern California's Catalyst for a Brighter Future

##### **OUR CORE VALUES**

Be Open | Lead by Example | Make an Impact | Be Courageous



## ENERGY AND ENVIRONMENT COMMITTEE AGENDA

---

**STAFF REPORT**  
*(Grieg Asher, SCAG Staff)*

**FUTURE AGENDA ITEMS**

**ANNOUNCEMENTS**

**ADJOURNMENT**

The next meeting of the EEC is scheduled for Thursday, October 3, 2019 at the SCAG Los Angeles Office.

---

**OUR MISSION**

*To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.*

**OUR VISION**

*Southern California's Catalyst for a Brighter Future*

**OUR CORE VALUES**

*Be Open | Lead by Example | Make an Impact | Be Courageous*



Southern California Association of Governments  
900 Wilshire Boulevard, Suite 1700, Los Angeles, California 90017  
September 5, 2019

**ENERGY AND ENVIRONMENT COMMITTEE  
MINUTES OF THE MEETING  
THURSDAY, AUGUST 1, 2019**

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

The Energy and Environment Committee (EEC) met at SCAG, 900 Wilshire Blvd., Suite 1700, Los Angeles, CA 90017. A quorum was present.

**Members Present**

Hon. David Pollock, Moorpark (Vice Chair)	District 46
Hon. Margaret Clark, Rosemead	District 32
Hon. Ned Davis, Westlake Village	LVMCOG
Hon. Mike Gardner, Riverside	WRCOG
Hon. Sandra Genis, Costa Mesa	OCCOG
Hon. Shari Horne, Laguna Woods	OCCOG
Hon. Toni Momberger, Redlands	SBCTA
Hon. Greg Morena, Santa Monica	WSCCOG
Hon. Oscar Ortiz, Indio	CVAG
Sup. Luis Plancarte, Imperial County	Imperial County
Hon. Carmen Ramirez, Oxnard	District 45
Hon. Deborah Robertson, Rialto	District 8
Hon. Meghan Sahli-Wells, Culver City	WCCOG
Hon. Emma Sharif, Compton	GCCOG
Hon. Sharon Springer, Burbank	SFVCOG
Hon. John Valdivia, San Bernardino	SBCCOG

**Members Not Present**

Sup. Linda Parks (Chair)Ventura County	
Hon. Ana Beltran, Westmoreland	ICTC
Hon. Robert Copeland, Signal Hill	GCCOG
Hon. Maria Davila, South Gate	GCCOG
Hon. Paula Devine, Glendale	AVCJPA
Hon. Jordan Ehrenkranz, Canyon Lake	WRCOG

**OUR MISSION**

*To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.*

**OUR VISION**

*Southern California’s Catalyst for a Brighter Future*

**OUR CORE VALUES**

*Be Open | Lead by Example | Make an Impact | Be Courageous*



---

Hon. Diana Mahmud, South Pasadena	SGVCOG
Hon. Judy Mitchell, Rolling Hills Estates	District 40
Hon. Cynthia Moran, Chino Hills	SBCTA
Hon. Judy Nelson, Glendora	SGVCOG
Hon. James Osborne, Lawndale	SBCCOG
Hon. Greg Raths, Mission Viejo	OCCOG
Hon. Rhonda Shader, Placentia	President's Appointment
Hon. Edward H.J. Wilson, Signal Hill	GCCOG

**CALL TO ORDER AND PLEDGE OF ALLEGIANCE**

In the absence of EEC Chair Linda Parks, Vice Chair David Pollock called the meeting to order at 10:00 a.m.

Vice Chair Pollock welcomed and introduced new EEC member Councilmember Toni Momberger, Redlands, representing SBCTA, and asked her to lead the Pledge of Allegiance.

**PUBLIC COMMENT PERIOD**

There were no public comment speakers.

**REVIEW AND PRIORITIZE AGENDA ITEMS**

There was no reprioritization of the agenda.

**CONSENT CALENDAR**

Approval Item

1. Minutes of the Meeting - June 6, 2019

Received and File

2. Green Region Initiative - Sustainability Map Update

A MOTION was made (Ramirez) to approve the Consent Calendar. Motion was SECONDED (Gardner) and passed by the following votes:

**AYE/S:** Clark, Robertson, Genis, Pollock, Ramirez, Sahli-Wells, Horne, Gardner, Plancarte, Davis, Sharif, Moran, Momberger, Morena, Ortiz, Springer and Valdivia (16)

**NOE/S:** None (0)

**ABSTAIN/S:** None (0)

**INFORMATION ITEMS**

3. Southern California Regional Climate Adaptation Framework

Vice Chair Pollock introduced the item and asked Grieg Asher, SCAG staff, to provide background information.

Mr. Asher reported that SCAG has initiated and prepared a Southern California Regional Climate Adaptation Framework (CAF) to help the region's jurisdictions improve resiliency to climate-related stressors such as extreme heat, wildfire, drought, flooding, precipitation rates and sea level rise. Mr. Asher introduced Cambridge Systematics Project Manager David Von Stroh to provide an overview on what we will be working on and the tools that we will be developing and sharing with all the cities next year.

With the aid of a PowerPoint presentation, Mr. Van Stroh discussed that adaptation planning coordination and guidance is important in building a framework. He also provided an overview of the outreach tasks, General Plan guidance, transportation and land use analysis, risk and vulnerability mapping, wildfire and flood events analysis. In closing, he shared the various additional tools and resources such as: gap analysis; interactive mapping tool; funding workshop; metrics guidance; decision-making toolkit and the risks/adaptations tracking tool.

On behalf of the EEC, Vice Chair Pollock thanked David Van Stroh for his presentation.

4. Caltrans District Vulnerability Assessments

Vice Chair Pollock introduced the item and asked Jason Greenspan, SCAG staff, to provide background information.

Mr. Greenspan reported that Caltrans is preparing reports on the vulnerability of the state highway system to the effects of climate change such as sea-level rise, storm surge, changes in precipitation, temperature and increased wildfires. Mr. Greenspan introduced Reza Navai, Assistant Division of Transportation Planning Chief, Caltrans, to provide a presentation and overview of the statewide goal, purpose and process of developing vulnerability assessment reports.

---

With the aid of a PowerPoint presentation, Mr. Navai provided information regarding California's diverse landscape and climate zones; impacts of climate change to transportation infrastructure; damaging effects of storms and emergency repairs on the state highway network and its impact to the region. In closing, Mr. Navai stated that recommending strategies for integration of regional transportation investment decisions include developing adaptation strategies through best practices; integrating adaptation into planning, programming, project development, maintenance and operations.

On behalf of the EEC, Vice Chair Pollock thanked Reza Navai for his presentation.

5. Connect SoCal Program Environmental Impact Report (PEIR) Update

Vice Chair Pollock introduced the item and asked Roland Ok, SCAG staff, to provide an update.

Mr. Ok provided a status update on comments received in response to the Notice of Preparation (NOP) for the Connect SoCal Program Environmental Impact Report (PEIR) that SCAG released for a 30-day public review and comment period on January 23, 2019, update on comments received during the Scoping Meetings that were held on February 22, 2019, and an overview of stakeholder outreach meetings that occurred from June 2019 to July 2019. In closing, Mr. Ok referenced the schedule that is included in the agenda packet a preliminary draft outline and key milestones for the PEIR.

**CHAIR'S REPORT**

In the interest of time, a report was not provided.

**STAFF REPORT**

In the interest of time, a report was not provided.

**FUTURE AGENDA ITEM/S**

None.

**ANNOUNCEMENT/S**

None.

**ADJOURNMENT**



---

There being no further business, Vice Chair Pollock adjourned the Energy and Environment Committee meeting at 12:00 p.m.

The next regular meeting is scheduled for Thursday, September 5, 2019 at the SCAG Los Angeles, Office.

[MINUTES ARE UNOFFICIAL UNTIL APPROVED BY THE EEC]

//

**ENERGY AND ENVIRONMENT COMMITTEE ATTENDANCE REPORT**

2019-20

MEMBERS	Date Appointed if after 5/1/19	Representing	COUNTY	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total Mtgs Attended To Date
Beltran, Ana		Westmoreland, ICTC	Imperial		0		0									0
Clark, Margaret		Rosemead, RC District 32	Los Angeles		1		1									2
Copeland, Robert	Jun-19	Signal Hill, GCCOG	Los Angeles		1		0									1
Davila, Maria		South Gate, GCCOG	Los Angeles		0		0									0
Davis, Ned		Westlake Village, LVMCOG	Los Angeles		1		1									2
Devine, Paula		Glendale, AVCJPA	Los Angeles		1		0									1
Ehrenkranz, Jordan		Canyon Lake, WRCOG	Riverside		1		0									1
Gardner, Mike		Riverside, WRCOG	Riverside		1		1									2
Genis, Sandra		Costa Mesa, OCCOG	Orange		1		1									2
Horne, Shari		Laguna Woods, OCCOG	Orange		1		1									2
Mahmud, Diana		So. Pasadena, SGVCOG	Los Angeles		1		0									1
Mitchell, Judy		Rolling Hills Estates, RC District 40	Los Angeles		0		0									0
Momberger, Toni	Aug-19	Redlands, SBCTA	San Bernardino				1									
Moran, Cynthia		Chino Hills, SBCTA	San Bernardino		0		0									0
Morena, Greg	May-19	Santa Monica, WCCOG	Los Angeles		0		1									1
Nelson, Judy		Glendora, SGVCOG	Los Angeles		0		0									0
Ortiz, Oscar		Indio, CVAG	Riverside		1		1									2
Osborne, Jim		Lawndale, SBCCOG	Los Angeles		1		0									1
Parks, Linda (CHAIR)		Ventura County	Ventura		1		0									1
Plancarte, Luis		Imperial County	Imperial		0		1									1
Pollock, David (Vice Chair)		Moorpark, VCOG	Ventura		1		1									2
Ramirez, Carmen		Oxnard, RC District 45	Ventura		1		1									2
Raths, Greg		Mission Viejo, OCCOG	Orange		0		0									0
Robertson, Deborah		Rialto, RC District 8	San Bernardino		0		1									1
Sahli-Wells, Meghan		Culver City, RC District 41	Los Angeles		0		1									1
Shader, Rhonda	Jun-19	Placentia, President's Appointment			0		0									0
Sharif, Emma		Compton, RC District 26	Los Angeles		1		1									2
Springer, Sharon		Burbank, SFVCOG	Los Angeles		1		1									2
Valdivia, John		San Bernardino, SBCCOG	San Bernardino		0		1									1
Wilson, Edward H.J.		Signal Hill, GCCOG	Los Angeles		1		0									1

Attachment: EEC Attendance Sheet 2019 (Minutes of the Meeting - August 1, 2019)



Southern California Association of Governments  
900 Wilshire Boulevard, Suite 1700, Los Angeles, California 90017  
September 5, 2019

**To:** Community  
Economic & Human Development Committee (CEHD)  
Energy & Environment Committee (EEC)  
Transportation Committee (TC)  
Regional Council (RC)  
**From:** Julia Lippe-Klein, Assistant Regional Planner, Active  
Transportation & Special Programs, (213) 236-1856, Lippe-  
Klein@scag.ca.gov  
**Subject:** September is Pedestrian Safety Month

EXECUTIVE DIRECTOR'S  
APPROVAL

**RECOMMENDED ACTION:**

Receive and File

**STRATEGIC PLAN:**

This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians.

**EXECUTIVE SUMMARY:**

*September is California's Pedestrian Safety Month, dedicated to educating drivers and pedestrians about safe roadway habits and reducing the number of pedestrians killed and injured on California roadways. Staff is conducting and promoting safety activities throughout September to support Pedestrian Safety Month and promote available resources for use during "Walktober," or Walking October, in an effort to reduce pedestrian fatalities and injuries. Example safety resources will be showcased at the SCAG offices during the September regional council meeting.*

**BACKGROUND:**

The SCAG region, like California and the nation as a whole, experienced a period of annual declines in traffic-related fatalities and serious injuries until 2012 when they began to steadily rise. Although the region has made some progress on safety, 1,500 people are killed, 5,200 are seriously injured and 136,000 are injured in traffic collisions on average each year. About 73 percent of those killed since 2001 were in vehicles or on motorcycles, while the remaining 27 percent were walking or bicycling (disproportionate to their mode share, 12 percent of all daily trips are walking or biking trips). The numbers of both pedestrians and motorcyclists killed are the highest they have been for more than a decade. These collisions are happening in every city across the region.

To heighten awareness of the region's transportation safety challenges and opportunities, and to

**OUR MISSION**

*To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.*

**OUR VISION**

*Southern California's Catalyst for a Brighter Future*

**OUR CORE VALUES**

*Be Open | Lead by Example | Make an Impact | Be Courageous*

---

reduce collisions resulting in serious injuries or fatalities, SCAG launched the *Go Human* campaign in 2015. *Go Human* is an award winning community outreach and advertising campaign with the goals of reducing traffic collisions and encouraging people to walk and bike more in the SCAG region. *Go Human* is a collaboration between SCAG and the County Transportation Commissions and Public Health Departments in the region. The campaign provides advertising and educational resources to partners and implements temporary safety demonstration projects to showcase innovative transportation designs and help cities re-envision their streets as safer, more accessible places for walking and biking.

This item is being presented to inform SCAG Policy Members that September is Pedestrian Safety Month and to highlight resources available for use in both September and October, or “Walktober” – National Walking Month. Both months highlight the increased need for safety strategies to reduce fatalities and serious injuries among pedestrians. Resources have been made with through a grant provided by the California Office of Traffic Safety, through the National Highway Traffic Safety Administration. Resources include opportunities for co-branding advertisements; SCAG’s *Go Human Challenge*, which consists of educational, interactive programming modules; and temporary safety demonstration treatments, through SCAG’s Safety Kit of Parts. The Kit includes five different design treatments that partner jurisdictions can borrow. All resources are available for use during Pedestrian Safety Month, “Walktober”, and thereafter. Example materials will be showcased on site at the SCAG offices during the Regional Council meeting.

Visit [www.GoHumanSoCal.org](http://www.GoHumanSoCal.org) to learn more about available safety resources.

**FISCAL IMPACT:**

All costs associated with this item are included in the FY 2019-20 Overall Work Program (OWP) under project number 225-3564.13 and funded by a Pedestrian and Bicycle Safety Program Grant from the California Office of Traffic Safety.



Southern California Association of Governments  
900 Wilshire Boulevard, Suite 1700, Los Angeles, California 90017  
September 5, 2019

**To:** Energy & Environment Committee (EEC)  
Transportation Committee (TC)  
Community, Economic and Human Development Committee (CEHD)  
**From:** Jason Greenspan, Manager of Sustainability, Sustainability, 213-236-1859, greenspan@scag.ca.gov  
**Subject:** Connect SoCal Job Center Strategies

EXECUTIVE DIRECTOR'S  
APPROVAL

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

**RECOMMENDED EEC AND TC ACTION:**  
Receive and File

**STRATEGIC PLAN:**  
This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians.

**EXECUTIVE SUMMARY:**  
*Connect SoCal will coordinate future transportation investments with a regional development pattern that can achieve the ambitious greenhouse gas (GHG) emissions reduction target set forth by the California Air Resource Board (ARB) - a 19 percent reduction in per capita GHG emissions by 2035 from 2005 levels. One of Connect SoCal's approaches in addressing regional challenges is identifying employment rich Job Centers as targets for future employment as well as household growth , i.e., encouraging people to live where current and future jobs are). To maximize the effectiveness of this strategy, SCAG developed a suite of land use and transportation measures that promote increased connectivity between future employment opportunities and residential growth, lessen commute distances and transportation cost burdens, and reduce greenhouse gas emissions. Ultimately, Connect SoCal's preferred scenario will illustrate how Southern California can achieve certain regional outcomes and goals if strategies for Job Centers are embraced and implemented by local jurisdictions and transportation partners.*

**BACKGROUND:**  
The size and diversity of the SCAG region precludes the use of a “one size fits all” approach to achieving sustainability outcomes. Accordingly, Connect SoCal will incorporate a range of best practices for increasing transportation choices; reducing dependence on personal automobiles;

**OUR MISSION**  
To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.

**OUR VISION**  
Southern California's Catalyst for a Brighter Future

**OUR CORE VALUES**  
Be Open | Lead by Example | Make an Impact | Be Courageous

---

encouraging growth in walkable, mixed-use communities with ready access to transit infrastructure and employment opportunities; and further improving air quality.

A longstanding concern in the region is the imbalance between the location of employment and housing—especially affordable housing. While there are some policy mechanisms to promote future household growth at the jurisdictional-level, promoting both job growth and household growth together has been a challenge. Accordingly, Connect SoCal features a new approach which can also encourage regional economic prosperity and global competitiveness.

Job Centers, which have been identified in all six counties in the SCAG region through a data driven methodology (Kane, Hipp, and Kim 2018), represent areas with significantly higher employment density than their surrounding areas. SCAG applied this methodology and identified over 70 Job Centers throughout the region (See Attachment 1). Identified Job Centers represent *local employment peaks* rather than simply areas in the region with the *most* jobs, with many resembling “suburban downtowns.” Importantly, Job Centers are present in over 60 percent of the region’s 197 local jurisdictions and characterize locations where regional strategies that support economic prosperity can be deployed in catalytic ways. Specifically, these areas have the built-in advantage of existing employment density; when future growth is concentrated in Job Centers, the length of vehicle trips for residents will likely be reduced.

Connect SoCal emphasizes Job Centers for four key strategies:

- 1.) **Focused Growth:** Connect SoCal will include a strategy to focus future employment and household growth into over 90% of the region’s Job Centers (specifically those with a high potential for travel demand benefits were they to experience additional growth). Allocation of additional growth into job centers followed two key principles: (a) it did not change a local jurisdiction’s local input totals for household and population growth, and (b) each jurisdiction’s general plan densities were respected.
- 2.) **Co-working Spaces:** During 2019, SCAG undertook survey research of the users of increasingly popular shared workspaces, referred to as “co-working” sites. Well-known examples include WeWork, Regus, and DeskPass. Survey results indicated that a small but important subset of co-working site users substitute long-distance single-occupant vehicle commutes to fixed offices by using co-working spaces closer to their homes. By identifying residential areas *near* job centers in which likely co-work space users live, Connect SoCal proposes a strategy of working with local partners to identify sites, supporting, and developing co-working spaces in over 50% of Job Centers. While targeting co-working areas resembles previous efforts at so-called “telework centers,” this strategy takes advantage of the rapidly increasing market demand for chic, urbane spaces where predominantly information technology and consulting employees enjoy working. This strategy has the

added benefit of linking economic opportunities usually found in the densest urban cores to residents of more remote areas.

- 3.) **Increased Average Vehicle Ridership (AVR):** Recent efforts focus on expanding Travel Demand Management (TDM), including SCAG’s 2018 TDM strategic plan. Additionally in 2018, AB 2548 authorized the Los Angeles Metropolitan Transportation Authority (“Metro”) to require employers with 50 or more workers to offer employee commute benefits, including transit passes and vanpool charges. This law extended existing TDM requirements to a large portion of the region that had previously only applied to employers of 250 workers or more. Connect SoCal will add an additional layer of TDM investment in approximately 30% of Job Centers that are amongst the most dense in the region and implement a performance goal of 1.5 average riders per vehicle. This intensification may also involve the development of additional local TDM ordinances and Transportation Management Associations (TMAs) beyond the handful that currently exist. As an additional mechanism to achieve higher AVR to reduce single-occupant vehicles, incentivize carpooling, and increase transit use (where available), parking pricing would be implemented in this Job Center subset.
  
- 4.) **Parking Strategy:** Research on parking indicates that employees with free parking are much more likely to drive to work alone than those who are charged for parking on a daily basis. The provision of free parking to employees represents a cost to employers in the maintenance of existing facilities. Moreover, for new construction the median cost for a new parking structure is \$19,700 per space and \$59.06 per square foot (Cudney, 2017). Thus “free” parking actually represents a substantial cost for businesses and results in higher vehicles miles traveled for employees. Accordingly, if parking is suitably priced in select Job Centers, communities would experience economic benefits from the reduced costs to businesses, as well as an increase in the use of carpool and transit modes.

Works Cited: Kane, K., Hipp, J. R., & Kim, J. H. 2018. Los Angeles employment centers in the twenty-first century. *Urban Studies* 55:4, 844-869.

Cudney, Gary. 2017. Parking Structure Cost Outlook for 2017. Accessed at <http://denver.streetsblog.org/wp-content/uploads/sites/14/2017/10/2017-Cost-Article.pdf>. August 16, 2019.

**FISCAL IMPACT:**

Costs for this work are included in SCAG’s current Overall Work Program (OWP) in projects 280-483.01 - Future Communities Study and 070-2665.01 - Scenario Planning and Modeling.

**ATTACHMENT:**

1. Connect SoCal Job Center Potential Locations



# Connect SoCal Job Centers Strategy

## Preview of a Meta-Strategy

Kevin Kane, PhD  
Research & Analysis  
September 5, 2019

[www.scag.ca.gov](http://www.scag.ca.gov)



Attachment: Connect SoCal Job Center Potential Locations (Connect SoCal Job Center Strategies)

### Goals



## Core Regional Strategies

### Regional Growth: Priority Growth/Conservation Areas

Housing Opportunity

Smart Communities/Virtual Access

Multi-Modal Infrastructure Investments

New System Management

Resilience and System Preservation

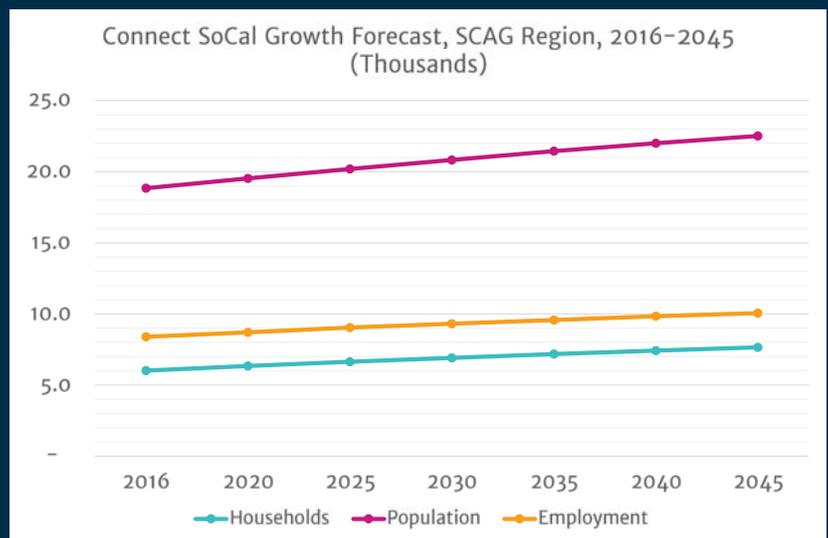
Regional Clean Technology Vision

## Relationship between employment and housing is challenging

- Jobs-housing balance
- Jobs-housing fit
- Wage differentials
- Limited mechanisms to plan land use at the regional level, especially non-housing



Illustration of Jobs-Housing Balance, UCI Metropolitan Futures Initiative



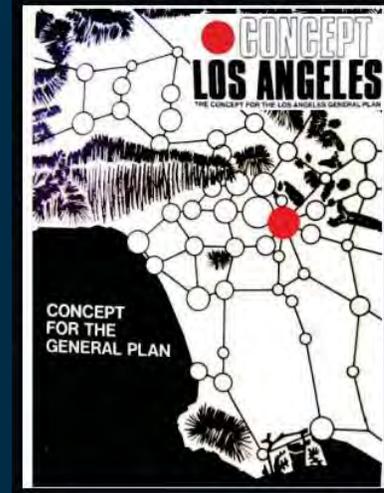
## Why Focus On Job Centers?

- Leverages existing advantages
- Density & infrastructure
- One person's job is another person's travel destination – *it's not just about the work commute*



1926 Los Angeles Region Centers Plan, www.davidrumsey.com

### 1970 Centers Concept



Planetizen.com/files/los-angeles-centers-plan.pdf

## What is a job center?

- Key principle: areas significantly denser *than surroundings*
- Different than absolute job peaks
- New statistical methodology builds on recent research\*
- Systematic approach → equality across a diverse region



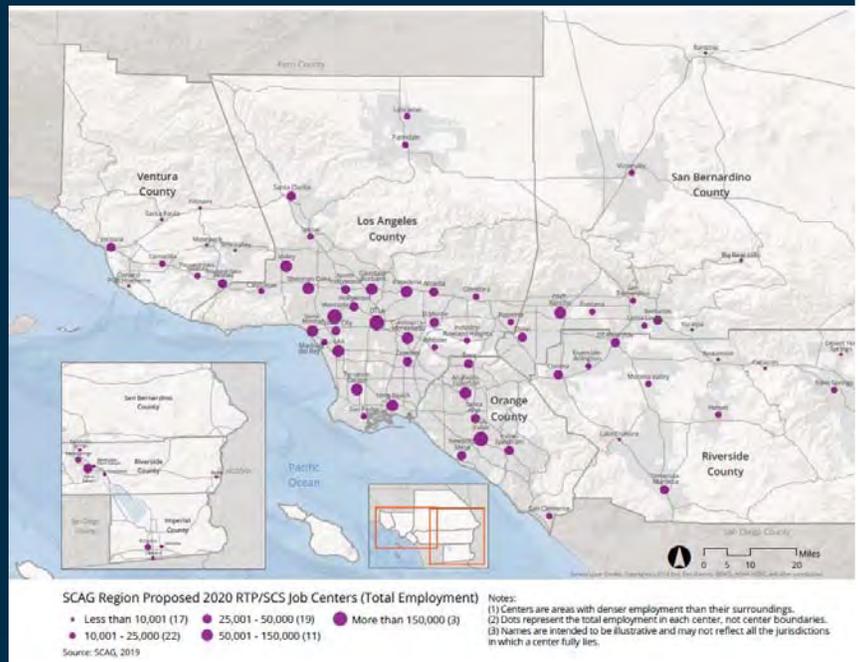
Source: UC-Irvine Metropolitan Futures Initiative

Attachment: Connect SoCal Job Center Potential Locations (Connect SoCal Job Center Strategies)

\*Kane, K., Hipp, J. R., & Kim, J. H. 2018. Los Angeles employment centers in the twenty first century. *Urban Studies* 55:4, 844-869.

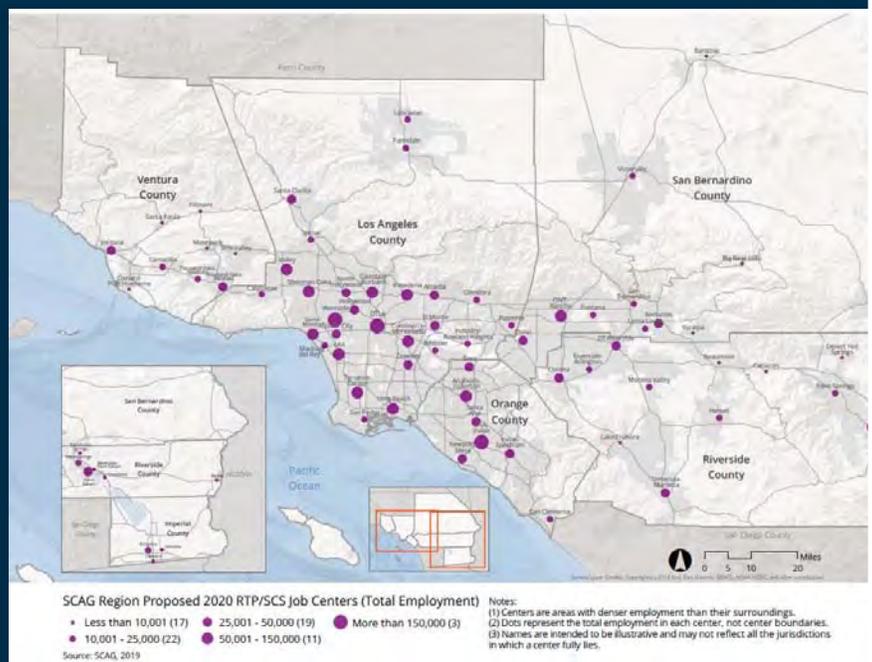
## Where are the proposed job centers in the SCAG region?

- 72 total centers
- 0.8% of land area
- Over 1/3 of region's jobs
- Largest: Downtown LA, Westside (~ 1/4 million jobs/each)
- Smallest: Holtville (1,800 jobs)
- Method ensures they're fairly evenly spaced
- *Some places which feel job rich may not be denser than their surroundings*



## Connect SoCal's Job Center-related strategies

1. Focused growth
2. Co-working spaces
3. Increased Average Vehicle Ridership (AVR)
4. Parking strategy



## Strategy 1: Focusing Growth in Job Centers

- More household *and* employment growth is placed in job centers
- Principles for allocating growth:
  - Local input growth totals at the jurisdiction-level were not changed
  - Local input growth totals at the small area / Transportation Analysis Zone (TAZ)-level were changed
  - Growth does not exceed any local jurisdiction's general plan density
- Comparison of annual growth rates in proposed job centers:

	Household Growth	Employment Growth
2008-2016	0.78%	1.02%
2016-2045, Local Input Scenario	1.12%	0.50%
2016-2045, Preferred Plan Scenario	1.56%	0.66%

## Co-working spaces

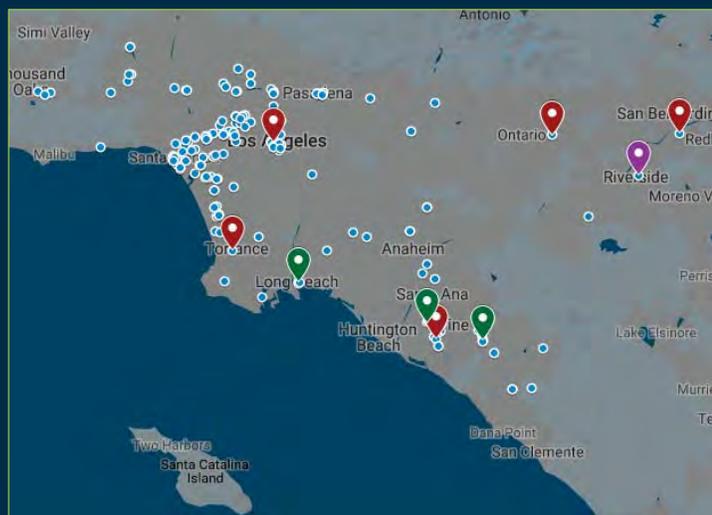
SCAG survey of 273 users of **co-working spaces** in the region. They tend to be:

- Younger
- Overrepresented in IT and consulting
- Generally work full-time
- Over 3/4 are *not* freelancers or entrepreneurs
- 32% would've gone to the office instead
  - Office trips tend to be further



## Are job centers ripe for co-working sites?

- Co-work spaces are businesses responding to market demand
- Could their location patterns be modified to maximize trip reduction benefits?



Map of 196 co-working spaces identified in the SCAG region and 10 survey sites



SCAG Region Proposed 2020 RTP/SCS Job Centers (Total Employment)  
 Notes:  
 (1) Centers are areas with denser employment than their surroundings.  
 (2) Data represent the total employment in each center, not center boundaries.  
 (3) Names are intended to be illustrative and may not reflect all the jurisdictions in which a center fully lies.  
 Source: SCAG, 2019

Attachment: Connect SoCal Job Center Potential Locations (Connect SoCal Job Center Strategies)

## Prioritize people and place for maximum benefit

### Potential Co-work users:

1. Long-distance commuters (> 50 miles one way?)
2. Work in industries ripe for co-working
3. Live in, or very close to job centers

DRAFT ILLUSTRATION: Top candidate sites for co-work trip reduction based on these criteria:

Rank	Center Name	Potential Co-work Users	Average One-Way Commute Distance (of commutes > 50 mi.)
1	Santa Clarita	616	71.767
2	Irvine- Spectrum	572	68.395
3	ONT- Rancho	542	66.597
4	Corona	380	69.662
5	Moreno Valley	309	61.952
6	Pasadena	298	68.092
7	Fontana	292	65.029
8	San Clemente	289	67.216

### Strategy 3: Focus on Average Vehicle Ridership (AVR)

- Efforts to increase Travel Demand Management (TDM)
  - Update of SCAG TDM Toolbox
  - Currently, most comprehensive regional TDM only applies to worksites of 250+ (AQMD Rule 2202)
  - LA Metro now authorized to require commute benefits to worksites of 50-249 (AB 2548)
- Proposed additional TDM investment in 1/3 of proposed job centers
  - Performance goal: 1.5 riders per vehicle
  - Focus on densest centers most likely to achieve target
  - May involve developing more local Transportation Management Associations (TMAs)

### Strategy 4: Parking Pricing

- Evaluate versus the current cost of free parking in a new parking structure:
  - National median: \$19,700/space\*
  - Los Angeles: \$22,334/space\*
  - Higher VMT
- Proposed parking pricing strategy in densest proposed job centers
  - Percentage-based increase in parking cost
  - Densest centers only
  - Places where alternative modes generally more available

\*Cudney, Gary. 2017. Parking Structure Cost Outlook for 2017. Accessed at <http://denver.streetsblog.org/wp-content/uploads/sites/14/2017/10/2017-Cost-Article.pdf>



Thank you

Kevin Kane  
kane@scag.ca.gov  
(213) 236-1828  
[www.scag.ca.gov](http://www.scag.ca.gov)





Southern California Association of Governments  
900 Wilshire Boulevard, Suite 1700, Los Angeles, California 90017  
September 5, 2019

**To:** Executive/Administration Committee (EAC)  
Community  
Economic & Human Development Committee (CEHD)  
Transportation Committee (TC)  
Energy and Environment Committee (EEC)  
**From:** Kome Ajise, Executive Director, Executive Management, 213-  
236-1835, Ajise@scag.ca.gov  
**Subject:** EAC Retreat Housing Discussion Follow-Up

EXECUTIVE DIRECTOR'S  
APPROVAL

**RECOMMENDED ACTION:**

Receive and File

**STRATEGIC PLAN:**

This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians.

**EXECUTIVE SUMMARY:**

*Increasing housing production in the SCAG region to address the housing crisis is a core priority for President Bill Jahn and SCAG's Executive Officers. During the July 2019 SCAG Executive Administration Committee Retreat, the Board Officers and Committee Members discussed SCAG's role in fostering housing development, beyond administering the Regional Housing Needs Assessment (RHNA) process. Committee members highlighted opportunities for SCAG to play a greater leadership role on housing issues and provided direction to staff on policy priorities to consider in developing a robust housing program.*

*This report provides background on housing planning at SCAG and an update on staff actions to advance ideas discussed during the EAC Retreat, including the process for preparing a proposal and delivering programs supported by Assembly Bill 101.*

**BACKGROUND:**

EAC Retreat: Policy Discussion Summary

During the July 2019 SCAG Executive Administration Committee Retreat, the Board Officers and Committee Members discussed SCAG's role in fostering housing development, beyond administering the RHNA process. The conversation was facilitated by housing experts, Steve PonTell and Randall Lewis. PonTell is Chief Executive Officer and President of National CORE, one of

**OUR MISSION**

*To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.*

**OUR VISION**

*Southern California's Catalyst for a Brighter Future*

**OUR CORE VALUES**

*Be Open | Lead by Example | Make an Impact | Be Courageous*

the nation's largest non-profit affordable housing developers. Lewis is an Executive Vice President at the Lewis Group of Companies, a privately held real estate development company focused on the development of master planned communities. Their presentation provided an overview of segments within the housing market and some of the challenges for-profit and non-profit developers face in producing new units. The Committee discussed the importance of ensuring elected officials and planning commissions are educated about the market and some of the unintended consequences of policy decisions. Challenges posed by state regulation including CEQA and the financial structure of cities, which has resulted in the fiscalization of land use and an oversupply of retail, were also discussed. Committee members were asked to provide input on SCAG's role in addressing the barriers to housing production. Areas of interest included working with the state to bring back redevelopment funds and enhance other financing mechanism; providing cities with resources to engage their residents around the type of housing they can support; convening public-private stakeholders to foster collaborative solutions; developing a toolbox of pro-housing policies for local jurisdictions; and addressing abuses of CEQA through legislative reform. SCAG staff was directed to summarize the conversation and come back to the Regional Council with next steps including a work program.

#### SCAG's Housing Program

The Regional Housing Needs Assessment (RHNA) is mandated by State Housing Law as part of the periodic process of updating local housing elements of the General Plan. The RHNA quantifies the need for housing within each jurisdiction during specified planning periods. SCAG is in the process of developing the 6th cycle RHNA allocation plan which will cover the planning period October 2021 through October 2029. It is planned for adoption by SCAG in October 2020. The RHNA does not produce housing, but rather allows communities to anticipate growth, so that collectively the region and subregion can grow in ways that enhance quality of life, improve access to jobs, promotes transportation mobility, and addresses social equity, fair share housing needs. Historically, SCAG has had limited resources to support work on RHNA and housing issues. However, AB 101 recognized the important role regions can play in addressing the housing crisis, beyond RHNA, and established a new funding program for regional councils of governments.

#### AB 101

AB 101 is the comprehensive budget trailer bill dealing with housing production and homeless initiatives. The legislation includes updates to farmworker housing and the density bonus law, and budget allocations for the Infill Infrastructure Program, Low Income Housing Tax Credit program, and to cities/counties/continuums of care for homelessness prevention programs, and a variety of other programs. AB 101 also establishes the Local Government Planning Support Grants Program administered by the California Department of Housing and Community Development (HCD) for the purpose of providing regions with one-time funding. The bill allocates \$250 million to HCD for councils of governments and jurisdictions to be used for technical assistance, the preparation and adoption of planning documents, process improvements to accelerate housing production and to

---

facilitate the compliance with the 6<sup>th</sup> cycle of RHNA. SCAG is expected to be eligible for up to \$50 million of these dollars to administer our RHNA and provide other planning services to our cities and counties. SCAG must put together an application package to HCD and apply for these funds. HCD is anticipated to produce guidelines for the application process over the next six months positioning SCAG to apply for funding in Spring 2020. Pending HCD approval, the proposed programs and grant resources would be incorporated into SCAG's Fiscal Year 2020-2021 Overall Work Program.

#### FY 20 Work Program

With AB 101 resources, SCAG has the opportunity to foster housing production and preservation through regional planning and by providing technical and financial assistance to subregions and cities for housing and infrastructure planning activities and process improvements. Staff will pursue activities in the current fiscal year to establish the foundation for a robust housing program, including preparing a funding proposal to be provided to HCD no later than January 31, 2021 per state law. To undertake this work, SCAG needs to enhance internal capacity and procure, through staff or consultants, additional expertise in housing planning. These resources will be directed toward helping SCAG leadership better understand the housing landscape and opportunities to align new resources to address gaps. In the short-term, staff is also leveraging Sustainable Communities Program partnerships and Housing Monitoring funds programmed through SB 1 to conduct research and case-studies for aligning housing planning with the implementation of Connect SoCal by promoting development priority growth areas.

Staff will provide ongoing updates on this work with the ultimate goal of returning to the Regional Council in Spring 2020 with a program proposal and preliminary expenditure plan for AB 101 resources starting in July 1, 2020, pending HCD approval.

#### **FISCAL IMPACT:**

Funding for staff work is included in FY 19-20 Overall Work Program: 810.0120.16

This Page Intentionally Left Blank



Southern California Association of Governments  
900 Wilshire Boulevard, Suite 1700, Los Angeles, California 90017  
September 5, 2019

**To:** Community  
Economic & Human Development Committee (CEHD)  
Transportation Committee (TC)  
Energy and Environment Committee (EEC)  
**From:** Marco Anderson, Program Manager I, Sustainability, (213)  
236-1879, anderson@scag.ca.gov  
**Subject:** Connect SoCal Electric Vehicle Strategy

EXECUTIVE DIRECTOR'S  
APPROVAL

**RECOMMENDED ACTION FOR EEC:**

For Information Only – No Action Required.

**RECOMMENDED ACTION FOR CEHD AND TC:**

Receive and File.

**STRATEGIC PLAN:**

This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians.

**EXECUTIVE SUMMARY:**

*Connect SoCal identifies ambitious and achievable land-use and transportation strategies to reduce greenhouse gas emissions. This report summarizes investment strategies proposed to promote clean vehicle technologies.*

**BACKGROUND:**

Alternative Fuel Vehicles (AFVs) include automobiles and trucks with engines that can be primarily powered by energy sources other than petroleum gasoline. Alternative powertrain technologies that are the main focus of SCAG’s regional efforts include natural gas, electricity and hydrogen. Compressed natural gas (CNG) and liquefied natural gas (LNG) vehicles are primarily in service in public and private medium and heavy duty fleets. At this point retail consumer vehicle manufacturers are focusing efforts on Plug-in Electric Vehicles (PEVs) and Hydrogen fuel cell (H2) vehicles. PEVs include both battery electrics and plug-in hybrid electrics (PHEVs). Battery electric PEVs feature electric drive engines powered by electricity stored in battery packs. PHEVs have gasoline powered engines that produce electricity in addition to their battery packs. These gasoline engines take over when the battery pack is empty.

Adopting clean vehicle technologies such as battery-electric and fuel cell electric vehicles is integral

**OUR MISSION**

*To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.*

**OUR VISION**

*Southern California’s Catalyst for a Brighter Future*

**OUR CORE VALUES**

*Be Open | Lead by Example | Make an Impact | Be Courageous*

to achieving Connect SoCal's goal to reduce greenhouse gas emissions and improve air quality. Last September, the SCAG 2050 GHG Pathways project reported the importance of electric vehicles to the region. The findings from the project indicated that the transportation sector must rapidly introduce and incorporate vehicle electrification if the region is to achieve a 40% reduction in GHG below 1990 levels by 2030 per SB 32, and an 80% GHG reduction by 2050. SCAG is responsible for developing a Sustainable Communities Strategy (SCS) that reduces per-capita GHG emissions from automobiles and light-duty trucks by 19% below 1990 levels over the next 15 years. For that to occur, it is imperative to identify additional charging opportunities for plug-in electric vehicles (PEVs), especially at multi-unit dwellings and workplaces.

Most retail consumer vehicle manufacturers are focusing efforts on Plug-in Electric Vehicles (PEVs) and Hydrogen fuel cell (H2) vehicles. PEVs include both battery electrics and plug-in hybrid electrics. Battery electric PEVs feature electric drive engines powered by electricity stored in battery packs. Plug-in hybrid electric vehicles or PHEVs have gasoline powered engines that produce electricity in addition to their battery packs. Although battery electrics have limited range, these ranges are being extended by a variety of auto and battery manufacturers, and extensive data from the California Alternative Fuel Vehicle Rebate Program demonstrates that owners quickly adapt to taking advantage of frequent recharging opportunities. In addition, many households report that battery electrics purchased as a second vehicle often become the preferred vehicle for many trips. Planning and incentive efforts are currently focused on increasing the numbers of PEVs purchased in the region, and increasing workplace and multifamily housing charging opportunities.

There are various layers of statewide regulation that apply to PEVs. The federal government provides up to a \$7,500 tax rebate depending on the type of PEV. California provides up to an additional \$7,000 rebate through the Clean Vehicle Rebate Program (CVRP). Additionally, during his tenure Governor Brown issued two executive orders, B-16-12 and B-48-18 establishing targets for PEV fleet penetration. The former called for 1.5 million PEVs by 2025, and the latter called for five million PEVs by 2030. Executive Order B-48-18 also included targets for state government vehicle fleets. In addition to incentives for vehicles, the state legislature passed AB-1236 Local Ordinances: Electric Vehicle Charging Stations, which requires that local jurisdictions streamline permitting and inspection procedures in order to avoid disincentivizing charging station deployment.

#### Electric Vehicle (EV) Strategy

Connect SoCal seeks to accelerate the penetration of electric vehicles in the region through investments that complement and amplify the impact of federal and state programs. These investment include a one-time financial subsidy offered to employers for the purchase and installation of workplace EV charging infrastructure, as well as, one-time financial subsidies offered for the purchase of a qualifying PEV.

---

## Charging Infrastructure

The goal of the Electric Vehicle (EV) Charging Infrastructure strategy is to increase the number of EV chargers in the region to facilitate workplace plug-in hybrid vehicles (PHEVs) charging by employees where the infrastructure is installed at workplaces. Currently, the average potential all-electric range (AER) of the PHEV fleet in California is approximately 33 miles per day per vehicle, while the average actual PHEV electric-drive range for this fleet is only 20 miles per day per vehicle. This difference between the potential PHEV AER and actual PHEV AER electric-drive range suggests that PHEV drivers operate their PHEVs in gasoline operating mode rather than electric operating mode for part of their work commutes.

As PHEVs can operate in gasoline and electric operating modes, the strategy would serve to maximize PHEV operation in electric operating mode and minimize their operation in gasoline mode, thereby reducing tailpipe CO<sub>2</sub> emissions. Providing EV chargers at employee workplaces would help to extend the electric operation range of PHEVs used by employees who use EVs for commuting. Specifically, the strategy assumes PHEV batteries are fully charged prior to an employee beginning a commute trip to their workplace from home, as most PHEVs charge at home where the owner can qualify for low-cost nighttime charging that makes the electricity cheaper than gasoline. To facilitate PHEVs operating in electric mode on the employee's return commute trip to their home from workplace, the PHEV batteries are 'topped off' during work hours through the EV charging infrastructure installed under this strategy.

As part of this strategy, a one-time financial subsidy would be offered to employers for the purchase and installation of workplace EV charging infrastructure.

## Vehicle Incentives

The overall goal of the Electric Vehicle Incentive strategy is to help facilitate the purchase of new PEV's by offering incentives in the form of rebates to offset the additional cost versus non-PEVs. SCAG has identified an incentive program where rebates could be provided to consumers for the purchase of a new zero emission vehicle (ZEV). The Electric Vehicle Incentive program would be separate from CARB's Clean Vehicle Rebate Project (CVRP), which is designed to promote the purchase of battery electric, plug-in hybrid electric, and fuel cell electric vehicles through rebates for the purchase or lease eligible vehicles. As of November 2018, the CVRP has over \$23 million in funds remaining.

## Electric Vehicle Readiness Planning Projects

This strategy builds upon and is supported by local planning grants administered through SCAG's Sustainable Communities Program (SCP) to promote clean vehicle technologies. The EV program within the SCP is a suite of projects approved by the Regional Council in March to create EV

---

---

readiness plans for 18 cities and a Council of Government. The goal of these projects is to develop multiple EV plans that will create and recommend best practice guidelines across all PEV components to optimize future private and public investments in a range of areas including electric vehicle charging supply (EVCS) infrastructure deployment, PEV-friendly buildings, and, where possible EVCS installations along interregional transportation corridors. The purpose of the final project report is for SCAG to partner with communities to identify prime workplaces, multi-unit dwellings (MUDs), and publicly accessible fast charging locations within the applicant jurisdictions using the SCAG PEV Atlas, and to develop strategies to address barriers to implementation that jurisdictions can then implement.

**FISCAL IMPACT:**

This project is included SCAG's current Overall Work Program (OWP) in 065.0137.12 Electric Vehicle (EV) Program Readiness Strategies.

**ATTACHMENT(S):**

1. PowerPoint Presentation - Connect SoCal Overview and EV Strategies



# Plug-in Electric Vehicles, and Connect SoCal Schedule & Status:

Presentation to the Energy & Environment Committee

Marco Anderson, Program Manager

Sustainability

September 5, 2019

[www.scag.ca.gov](http://www.scag.ca.gov)



## Connect SoCal: Policy Discussions and Actions

February 7, 2019 - Who are we planning for?

March 7, 2019 - Where will we grow?

April 4, 2019 - How will we connect?

May 2, 2019 - Beyond Boundaries & Launch of Community Outreach

August 1, 2019 - Major Themes & Policy Direction

September 5, 2019 - Draft Plan: Discuss Major Elements

October 3, 2019 - Draft Plan: Discuss Major Elements

November 7, 2019 - Draft Plan & Performance; Action to Release Draft Plan for Public Comment

April 2, 2020 - Review, Adopt Final Plan

## SB 375 Requirements

- Develop and adopt a Sustainable Communities Strategy (SCS) as part of Regional Transportation Plan (RTP)
- If regional GHG targets not met with an SCS, develop and adopt an Alternative Planning Strategy (APS) separate from RTP
- Achieve per capita regional GHG emissions reduction targets
- Prepare Technical Methodology to estimate GHG emissions from SCS/APS
- Implement extensive public participation process
- Informational meetings in each county to present draft SCS/APS

## Connect SoCal: Policy Challenges

### 1. Higher 2035 Regional GHG Emissions Reduction Target

Year	Reduction from 2005 Levels		
	Connect SoCal Targets	2016 RTP/SCS Targets	Difference
2020	8%	8%	0%
2035	19%	13%	6%

## Connect SoCal: Policy Challenges



### 2. Fewer Years to Achieve the Higher 2035 GHG Reduction Target

- 15 years for Connect SoCal vs. 19 years for 2016 RTP/SCS

## Connect SoCal: Policy Challenges



### 3. Greater Penalty

- Impacted SB 1 Funding Programs (per law):
  - ✓ Solutions for Congested Corridors
  - ✓ Trade Corridor Enhancement Program (TCEP)
- Risk of Reduced Competitiveness in other SB 1 Funded Programs

## Connect SoCal: Technical Challenges



### 1. New Activity-Based Regional Transportation Demand Model (RTDM)

- Different and more sophisticated/complex modeling platform from previous trip-based RTDM
- First application for SCAG's RTP/SCS
- A lot of time is needed to complete all required testing
- Much bigger model data output

## Connect SoCal: Technical Challenges



### 2. Data Challenges for New Strategies

- Changing workplace and micromobility reflect emerging trends and new services
- Potential challenges and constraints:
  - ✓ Collecting consistent data from a variety of jurisdictions
  - ✓ Making accurate estimates due to lack of complete data sets

## Connect SoCal GHG Emissions Estimates for 2035

### I. On-Model Strategies

- 1) Local Pricing Strategies
- 2) Express Lane Pricing
- 3) Improved Bike Infrastructure
- 4) Land Use Strategies
- 5) Infill development and increased density near transit infrastructure
- 6) Mileage-Based User Fee
- 7) New/Enhanced Transit Projects
- 7) Transportation Demand Management

GHG Emissions Reduction Estimate  
(as of August 15):

**-11% to -13%**

## Connect SoCal GHG Emissions Estimates for 2035 (cont.)

### II. Off-Model Strategies

- Bike Share and Micromobility
- Car Share
- Co-Working
- Electric Vehicle Charging/Incentives
- Pedestrian Infrastructure
- Multimodal Dedicated Lanes
- Safe Routes to School
- Transit/TNC Partnership Program
- TDM & AVR for Job Centers
- Parking Deregulation

GHG Emissions Reduction Estimate:  
(as of August 15)

**-6% to -7%**

## Implementation Vision

Greater Local Control, Greater Local Responsibility

Accelerated Action: Faster, Cheaper Solutions

Enhanced Regional Initiatives & Partnerships

## DRAFT Regional Initiatives

Connect SoCal: DRAFT Regional Initiatives	FY 20 Activities (Examples)
System Preservation & Resilience	<ul style="list-style-type: none"> <li>• Caltrans Vulnerability Assessments</li> <li>• Regional Resilience Study</li> <li>• Local Adaptation/ Resilience Planning</li> </ul>
Safety	<ul style="list-style-type: none"> <li>• High Injury Network Mapping</li> <li>• Local Safety Plans/Vision Zero</li> <li>• Technology Solutions</li> </ul>
Complete Streets	<ul style="list-style-type: none"> <li>• Curbside Management Study</li> <li>• Go Human Pilot Projects</li> <li>• Local Plans, Pilot Projects</li> </ul>
Clean Tech	<ul style="list-style-type: none"> <li>• Low Emission Zone-Pilots</li> <li>• EV Infrastructure Studies</li> </ul>
Mobility Innovation (Policies, Programs, Partnerships)	<ul style="list-style-type: none"> <li>• Mobility Innovations and Incentives – Pilot</li> <li>• Last Mile Delivery Pilot Program</li> <li>• School Trip Strategy</li> <li>• Tourism &amp; Travel</li> <li>• Senior Mobility Solutions</li> </ul>

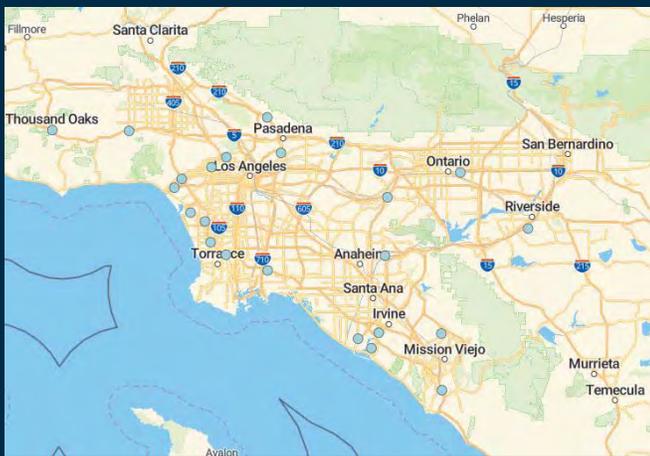
# DRAFT Regional Initiatives

Connect SoCal: DRAFT Regional Initiatives	FY 20 Activities (Examples)
Housing Supportive Infrastructure/Affordable Housing	<ul style="list-style-type: none"> <li>• AB 101 Program Development</li> <li>• SB 743 Mitigation</li> <li>• EIFD</li> </ul>
Advanced Mitigation	<ul style="list-style-type: none"> <li>• Regional Greenprint</li> </ul>
Smart Cities/IT Infrastructure	<ul style="list-style-type: none"> <li>• Future of Work Place</li> <li>• Future Communities Initiative Pilot Projects</li> <li>• AB 101 Program Development (e-permitting)</li> </ul>
Planning Innovation	<ul style="list-style-type: none"> <li>• Regional Data Platform</li> <li>• Activity Based Model</li> <li>• Enhanced Scenario Planning</li> <li>• Sustainable Communities Program/Pilot Projects</li> <li>• MPO Collaborations</li> </ul>

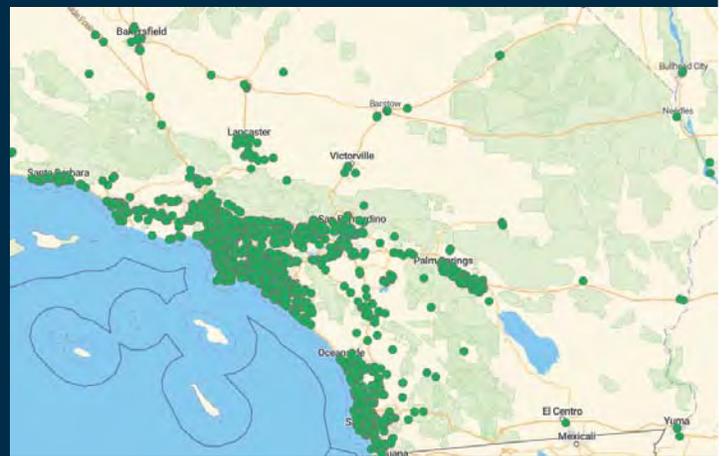
Attachment: PowerPoint Presentation - Connect SoCal Overview and EV Strategies (Connect SoCal Electric Vehicle Strategy)

## Introduction to SCAG's EV Efforts

### Hydrogen Fueling Stations



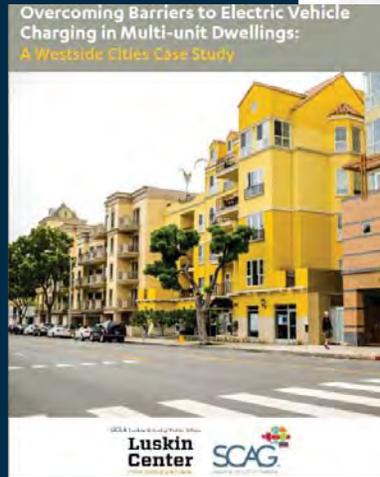
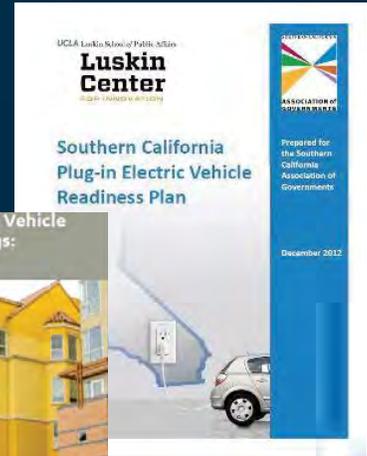
### Electric Vehicle Charging Stations



# Plug-in Electric Vehicle (PEV) Plan Resources

## SCAG Funded Products and Resources:

[www.scag.ca.gov/programs/Pages/RegionalElectric.aspx](http://www.scag.ca.gov/programs/Pages/RegionalElectric.aspx)



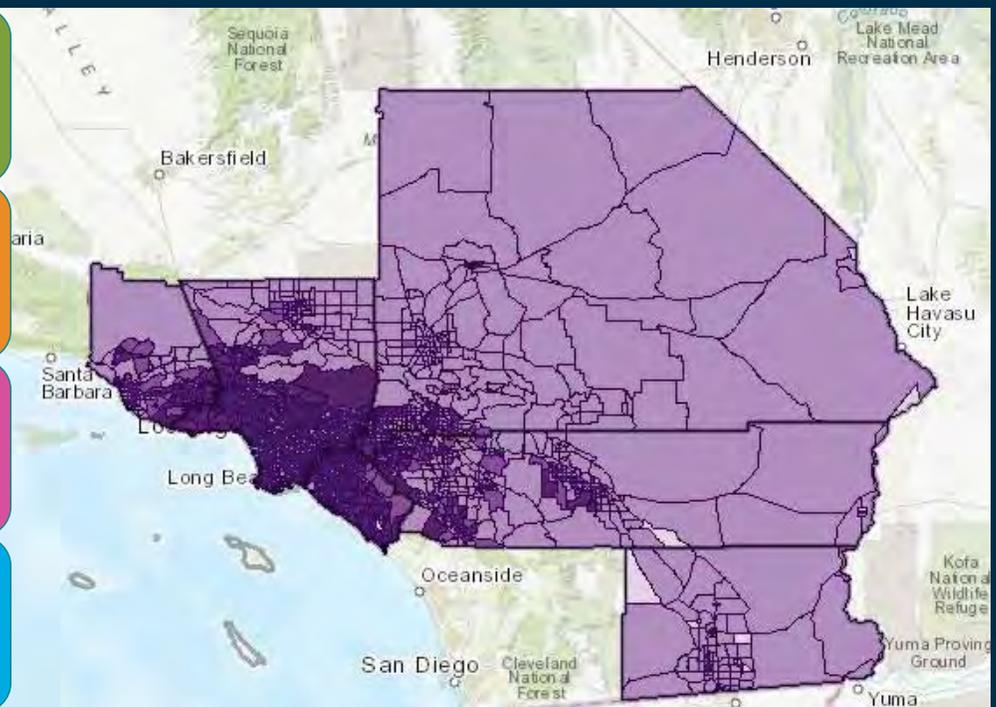
# Southern California Plug-in Electric Vehicle Readiness Atlas

Which neighborhoods have the greatest number of registered PEVs?

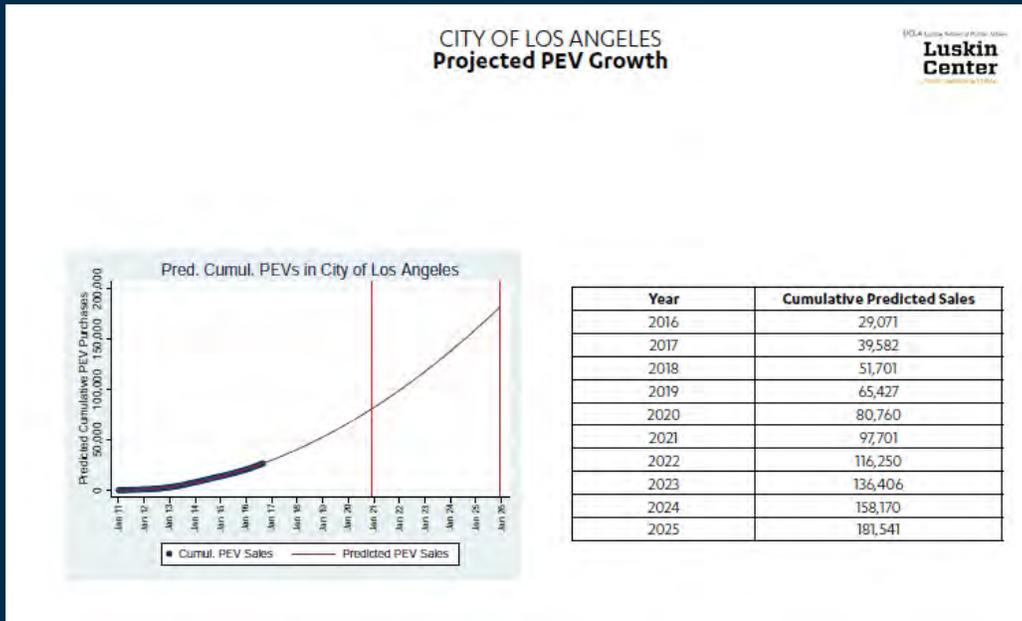
Where is the greatest demand for workplace charging?

Where is the greatest need for retail/commercial charging?

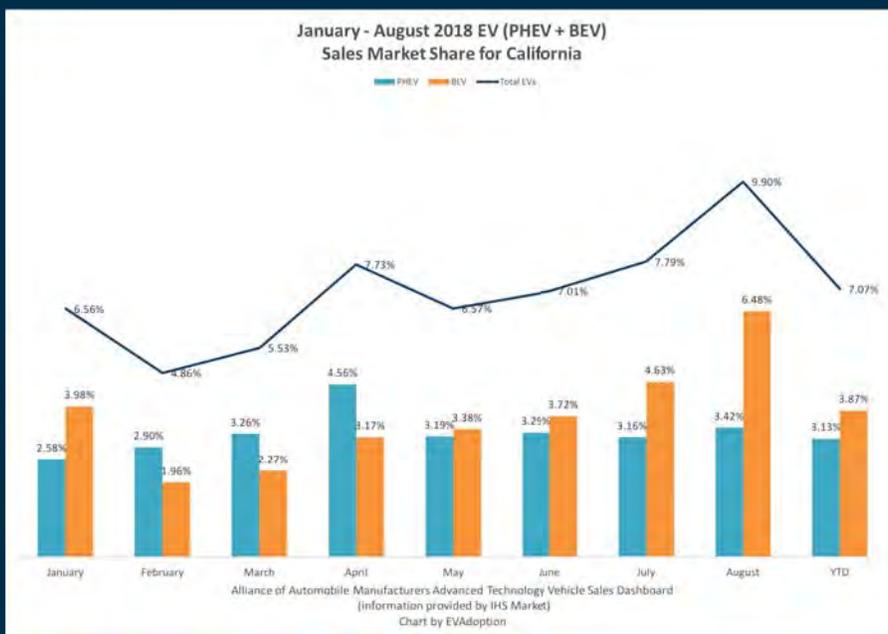
Where is there a lack of nearby charging?



# Growth in Plug-in EV registrations



# Growth in Plug-in EV registrations



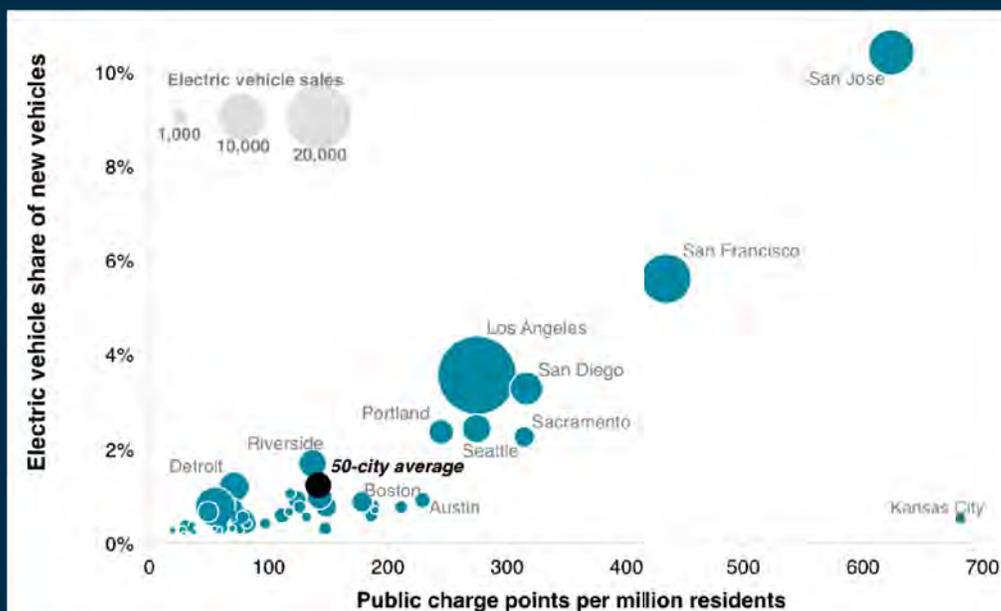
# Growth in Plug-in EVs



48 Different models are available in California

14

# Link Between EVs and EV Charging Stations



Electric vehicle uptake versus available public charging infrastructure

## Electric Vehicle (EV) Strategies

### Charging Infrastructure Strategy

- Based on ARB Zero Emissions Mandate Figures, provide chargers to increase PHEV Electrification (~10%)
- Incentivize Level 2 & 3 Charging stations
- Increase access to charging in Urban & Compact Areas
- **Net -0.3% GHG reduction**

### EV Vehicle Incentives Strategy

- SCAG region specific EV rebates to incentivize EV purchases
- Program will be designed with equity focus
- **Net -0.1% GHG reduction**

## Electric Vehicle Readiness Project List

Plan Category	Jurisdiction
Fast Charging Network Strategies	City of Anaheim
	City of Culver City
	City of Long Beach
	City of Los Angeles
Initial PEV Readiness Planning	City of Artesia
	City of Pico Rivera
	City of Redlands
San Gabriel Valley Region Cities	City of Covina
	City of Diamond Bar
	City of Baldwin Park
	City of Glendora
	City of La Puente
	City of La Verne
	City of Monrovia
	City of Rosemead
	City of San Dimas
	City of South El Monte
	City of Walnut
SGVCOG	

# Electric Vehicle SCP Project Areas



Thank You

Marco Anderson  
[anderson@scag.ca.gov](mailto:anderson@scag.ca.gov)  
213-236-1879  
[www.scag.ca.gov](http://www.scag.ca.gov)





Southern California Association of Governments  
900 Wilshire Boulevard, Suite 1700, Los Angeles, California 90017  
September 5, 2019

**To:** Energy & Environment Committee (EEC)  
Transportation Committee (TC)

**From:** Hina Chanchlani, Assistant Regional Planner, Transportation  
Planning and Programming, 213-236-1829,  
chanchlani@scag.ca.gov

**Subject:** Transportation Safety Element in Connect SoCal

EXECUTIVE DIRECTOR'S  
APPROVAL

**RECOMMENDED ACTION FOR EEC:**

For Information Only – No Action Required

**RECOMMENDED ACTION FOR TC:**

Receive and File

**STRATEGIC PLAN:**

This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians.

**EXECUTIVE SUMMARY:**

*Safety and Security is an important element of the Connect SoCal. Staff will provide an update on the existing conditions and strategies proposed for inclusion in the Draft Connect SoCal, focusing on the Safety. Staff will also provide a quick update on the progress that has been made by the Zero Fatalities Task Force established by AB 2363 at the state level.*

**BACKGROUND:**

Over the past year, SCAG has been developing the content for Connect SoCal. Safety and Security is an important element of the Connect SoCal. Staff is updating the Safety content engaging the key stakeholders through the Regional Safety Working Group. The Safety report includes an analysis of current conditions and continues to build off of the State Highway Safety Plan (SHSP), which is also being updated currently.

**Existing Safety Conditions Report**

SCAG created an existing conditions report which can be found here <http://www.scag.ca.gov/programs/Documents/TransportationSafety091717Lores.pdf> and also identified top three (3) findings for the region by mapping a High Injury Network (HIN). SCAG's High Injury Network captures 65% of collisions occurring on our roadways between 2010 and 2014. SCAG analyzed crash data for the region, including a data-driven methodology and a focuses on the areas

**OUR MISSION**

*To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.*

**OUR VISION**

*Southern California's Catalyst for a Brighter Future*

**OUR CORE VALUES**

*Be Open | Lead by Example | Make an Impact | Be Courageous*

with the greatest need. The top 3 findings identified below are based on geography, demographics, and vulnerability.

1. Fatalities and serious injuries are mostly occurring on a subset of streets.
2. Fatalities and serious injuries are increasing and are disproportionately impacting people walking and bicycling.
3. Fatalities and serious injuries are mostly occurring in Disadvantaged Communities (DAC) and Communities of Concern (CoC).

SCAG identified 109 cities in our region which are a part of SCAG’s High Injury Network (HIN). SCAG aims to work closely with these cities to identify safety concerns, reduce fatalities and serious injuries, and in turn achieve our regions safety targets. While developing HIN at a regional level helps in identifying cities in the SCAG region, it is recommended that cities develop a High Injury Network at the city level to identify concentrations of collisions.

**Towards Zero Deaths**

The Federal Highway Administration (FHWA) issued a Final Rule, effective April 14, 2016, to establish performance measures for state departments of transportation (DOTs) to carry out the Highway Safety Improvement Program (HSIP) as required by the Moving Ahead for Progress in the 21st Century Act (MAP-21). The Final Rule calls for State DOTs, working with Metropolitan Planning Organizations (MPOs), to establish targets for reducing the numbers and rates of transportation fatalities and serious injuries. The California Department of Transportation (Caltrans) established vision-based statewide safety targets in August 2018 for the calendar year 2019. SCAG established regional targets for the year 2019 based on the states methodology and submitted to Caltrans in February 2019.

Calendar year 2019 is the second year for which Safety targets are being established pursuant to the new requirements under MAP-21. SCAG had the option to agree to support the statewide targets, establish numerical targets specific to the region, or use a combination of both. SCAG supports the statewide targets and adopted SCAG-specific targets based on Caltrans’ target setting methodology in Feb 2019. This will allow SCAG to more accurately monitor its performance in relation to the State’s targets going forward. Because targets will be updated annually, SCAG will have the opportunity to revisit and update its targets each calendar year. SCAG is committed to these targets and aims to eliminate fatalities and serious injuries and reach the goal of Towards Zero Deaths (TZD) by 2050. The Regional Council approved the below targets in February 2019, which would set the region on a course to achieve zero deaths in 2050.

Forecasted Reductions				
	Single Yr (SCAG)	**Baseline 5-Year Rolling	State methodology applied to SCAG	Caltrans Targets for



		average (SCAG)	Region (5 Year Rolling Average)	the State 2019
Measure	***2017	2016	2019 Prediction (SCAG)	2019 Prediction (State)
Number of Fatalities	1505	1403	1467	3445.4
Rate of Fatalities per 100 M VMT	0.906	0.88	0.895	0.995
Number of Serious Injuries	6386	5044	5552	12688.1
Rate of Serious Injuries per 100 M VMT	3.843	3.162	3.366	3.661
Total Number of Non-motorized Collisions	2118	2046.4	2133	3949.8
* In all cases, referring to victims, not collisions **2016 data was updated after establishing targets for 2018 so updated data is used to establish targets for 2019 ***2017 Numbers are preliminary				

**Transportation Safety Strategies for Connect SoCal Plan**

As a part of the Connect SoCal Plan, SCAG developed strategies to eliminate traffic fatalities and serious injuries. SCAG aims to reduce fatalities by 3 percent and serious injuries by 1.5 percent annually by 2050 to reach the goal of Towards Zero Death (TZD). Connect SoCal prioritizes ensuring the safety and mobility of the region’s residents, including drivers and passengers, transit riders, pedestrians, and bicyclists. The Plan’s Transportation Safety and Security Technical report provides a framework largely grounded in the State’s Strategic Highway Safety Plan (SHSP), that can help member agencies interested in pursuing safety initiatives and strategies at the local level. The Plan also aims to address actionable strategies in which SCAG can support local jurisdictions. Below are the challenge areas identified in the SHSP 2020-2024 plan. Each challenge area includes actions for agencies in SCAG region on the transportation Safety and Security technical report.

1. Reduce aggressive driving and speeding
2. Improve safety for aging populations:
3. Improve Bicyclist safety
4. Improve Commercial Vehicles safety
5. Ensure Drivers are licensed
6. Improve Emergency Response services
7. Improve Research and Data Collection
8. Reduce Impaired Driving fatalities
9. Reduce Distracted Driving

10. Improve safety at Intersections
11. Reduce the Occurrence of Lane Departure Fatalities
12. Improve Motorcycle safety
13. Improve Occupant Protection by Increased Use of Seat Belts and Child Safety Seats
14. Improve Pedestrian safety
15. Improve Work Zone safety
16. Improve safety for Young drivers

### SCAG Actions

- SCAG will develop and maintain a high injury network mapping tool to support planning efforts related to transportation safety.
- SCAG will work with local jurisdictions to provide active transportation safety education opportunities through its Go Human campaign.
- SCAG will continue to represent Southern California on California Strategic Highway Safety Plan (SHSP) Steering Committee, the California Walk Bike Technical Advisory Committee, the Active Transportation Program Technical Advisory Committee and active transportation emphasis areas.
- SCAG will support regional safety efforts including Vision Zero policies and plans and also provide technical assistance for cities to develop these plans through Safety workshops and webinars.
- SCAG will support bicycle and pedestrian safety as part of SCAG's Sustainable Communities Program.
- SCAG will analyze shared use of sidewalks between different modes (bicyclists, pedestrian's e-scooters) and the impacts on personal safety (i.e. dockless devices blocking foot traffic or other conflicts when riding near pedestrians).
- SCAG should ensure funding strategies reflect unique local needs.
- Work with local jurisdictions and the California Highway Patrol on anti-street racing and sideshow campaigns and programs.

### Zero Traffic Fatalities Taskforce - Assembly Bill 2363

Unsafe speed is the primary collision factor for all collisions in SCAG region. In the SCAG region, about 30 percent of collisions are due to unsafe speed. A pedestrian has only 25 percent chance of survival if struck by a vehicle travelling 50 miles per hour. In contrast, at about 25 miles per hour, if struck, a pedestrian has a 90 percent chance of survival.

Speed is a critical factor in the severity of collisions. AB 2363 was passed on September 2018, the bill requires establishing a Taskforce for Zero Traffic Fatalities by the Secretary of Transportation. The Taskforce will provide a report before Jan. 1, 2020 which will analyze issues related to setting speed limits on the streets. The findings on the report shall include, but are not limited to:

- Existing process for establishing speed limits

- 
- Existing policies on how to reduce speeds on local streets and roads.
  - Recommendation of alternatives to the 85th percentile
  - Engineering recommendations on how to increase vehicular, pedestrian, and bicycle safety.
  - Existing reports and analyses on calculating the 85th percentile at the local, state, national, and international level.
  - Usage of the 85th percentile in urban and rural settings.
  - How local bicycle and pedestrian plans affect the 85th percentile.

Urban areas are usually multi-modal and have more conflict points. As speed increases, driver focuses less on surroundings and the drivers' field of vision and ability to see pedestrians, bicyclists or cars entering the roadway is diminished. Additionally, drivers' ability to react in a timely manner and avoid a crash is reduced and severity of a crash is increased.

Regional Council member Meghan Sahli-Wells represents SCAG on this important Taskforce. She has been an important voice on behalf of SCAG advocating for the region's needs for adjusting appropriate speed limits that will promote safety for all users of the road. Through participation in the Taskforce, SCAG has the opportunity to advance the goals and strategies of Connect SoCal. Staff will continue to update the Transportation Commission on the progress of the Taskforce and bring back any policy recommendations that may result from this effort.

**FISCAL IMPACT:**

Funding for staff work on this issue is included in the OWP (010.00170.08: Transportation Security Planning)

**ATTACHMENT(S):**

1. PowerPoint Presentation on Transportation Safety



# Transportation Safety

Hina Chanchlani  
Transportation planning and Programming  
September 5, 2019

[www.scag.ca.gov](http://www.scag.ca.gov)



## SCAG Transportation Safety Overview



### Goals for the Transportation Safety Report

- Identify strategies that will align with state SHSP goals and will allow Local, County and Regional agencies to identify projects that support Connect SoCal implementation.
- Identify actions SCAG can take in the near future to support transportation safety planning and project implementation across the region

## SCAG Safety Strategies

- Reduce aggressive driving and speeding
- Improve safety for aging populations
- Improve Bicyclist safety
- Improve Commercial Vehicles safety
- Ensure Drivers are licensed
- Improve Emergency Response services
- Improve Research and Data Collection
- Reduce Impaired Driving fatalities
- Reduce Distracted Driving
- Improve safety at Intersections
- Reduce the Occurrence of Lane Departure Fatalities
- Improve Motorcycle safety
- Improve Occupant Protection by Increased Use of Seat Belts and Child Safety Seats
- Improve Pedestrian safety
- Improve Work Zone safety
- Improve safety for Young drivers

## Example : IMPROVE SAFETY FOR AGING POPULATIONS

- Local jurisdictions should support roadway, intersection and interchange improvements that support improving right of way decisions by older populations and road users.
- Local jurisdictions should promote implementation of multimodal guidance for aging road users included in the California **Manual On Uniform Traffic Control Devices (MUTCD)**.
- Local jurisdictions should implement design treatments that support safety such as **curb extensions, bulb-outs and pedestrian refuge islands** that shorten crossing distances.
- Local jurisdictions should work with Transit network companies (TNCs) to explore programs that support transportation options for older adults.
- Work with businesses, community organizations, senior centers, and transit agencies to improve motorized transportation services for the aging population.
- Local jurisdictions should establish **Safe Routes for Seniors programs** that engage older adults, with a focus in areas with older adult serving uses (such as community centers, senior housing, and others), to identify physical and programmatic barriers to mobility including safe pedestrian access, lack of shade and/or seating, and ADA/universal access concerns. Create plans, programs, and allocate funding to improve the identified issues.

# Example : IMPROVE SAFETY FOR AGING POPULATIONS



**Design Element** – each design element is numbered consistently with those in the Handbook to allow for quick reference.

**Treatment** – each recommended treatment is identified with a letter for quick reference.

**References** – Each practice refers back to the page in the Handbook where greater detail can be found.

**Category** – identifies the current section of the guide.

**Figures** – figures are used throughout the guide to illustrate the recommendations. They are numbered for easy reference.

**Note** – Numbers are consistent with the complete Handbook for easy cross-reference.

Handbook for Designing Roadways for the Aging Population

**INTERSECTIONS**

**PROVEN PRACTICES**

**1. Intersecting Angle (Skew)**  
 Intersection skew angle in degrees is the absolute value of the difference between 90 degrees and the actual intersection angle.

**A. Unrestricted Right-of-Way**  
 Where right-of-way is not restricted, all intersecting roadways should meet at a 90-degree angle (as indicated in Figure 3).

**B. Restricted Right-of-Way**  
 Where right-of-way is restricted, intersecting roadways should meet at an angle of not less than 75 degrees (as indicated in Figure 4).

**C. Skewed Signalized Intersections**  
 At skewed signalized intersections where the approach leg to the left intersects the driver's approach leg at an angle of less than 75 degrees, prohibit right turn on red (RTOR) (See Figure 5).

The rationale and supporting evidence for these treatments begins on page 90 of the Handbook.

Figure 3. Example 90° angle of intersection

Figure 4. Example 75° angle of intersection

Figure 5. Skewed signalized intersection with prohibition of right turn on red

Attachment: PowerPoint Presentation on Transportation Safety (Transportation Safety Element in Connect SoCal)

## SCAG Actions

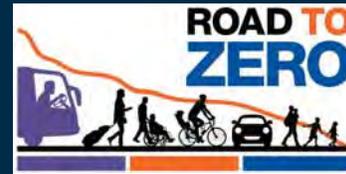
- SCAG will develop and maintain a high injury network mapping tool to support planning efforts related to transportation safety.
- SCAG will work with local jurisdictions to provide active transportation safety education opportunities through its Go Human campaign.
- SCAG will continue to represent Southern California on California Strategic Highway Safety Plan (SHSP) Steering Committee, the California Walk Bike Technical Advisory Committee, the Active Transportation Program Technical Advisory Committee and active transportation emphasis areas.
- SCAG will support regional safety efforts including Vision Zero policies and plans and also provide technical assistance for cities to develop these plans through Safety workshops and webinars.
- SCAG will support bicycle and pedestrian safety as part of SCAG's Sustainable Communities Program.
- SCAG will analyze shared use of sidewalks between different modes (bicyclists, pedestrian's e-scooters) and the impacts on personal safety (i.e. dockless devices blocking foot traffic or other conflicts when riding near pedestrians).
- SCAG should ensure funding strategies reflect unique local needs.
- Work with local jurisdictions and the California Highway Patrol on anti-street racing and sideshow campaigns and programs.

# Safe Systems Approach

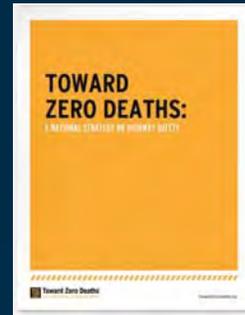
**Vision Zero** – Vision Zero is a road safety policy that aims to eliminate traffic fatalities and severe injuries.



**Road to Zero (RTZ)** – RTZ aims to eliminate traffic fatalities within 30 years, recognizing that traffic fatalities are preventable.



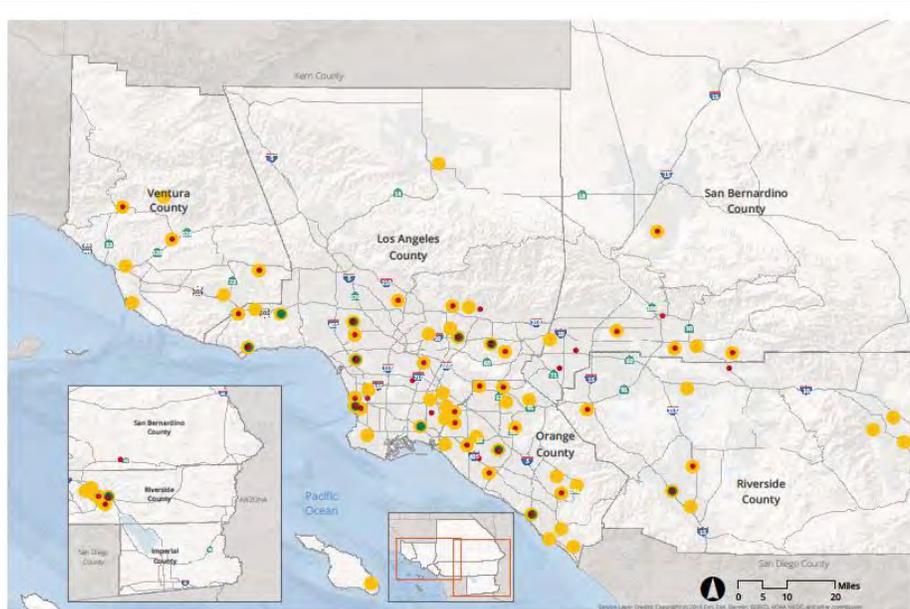
**Towards Zero Deaths (TZD)** – TZD identifies strategies and tactics to reduce roadway fatalities for six emphasis areas:



- **Drivers and Passengers, Vulnerable Users, Vehicles, Infrastructure, Emergency Medical Services, and Safety Management**

Attachment: PowerPoint Presentation on Transportation Safety (Transportation Safety Element in Connect SoCal)

# Vision Zero Policy, Safety Plan/Safety Targets



Legend  
 □ County Boundaries    □ City Boundaries    ~ Freeway    ● Safety Plan/ Safety Targets    ● Vision Zero Policy    ● Traffic Calming Measures

Source: SCAG, 2019

## MAP 21 - Federal Requirements

- Effective April 14, 2016
- Statutory authority under MAP-21 (49 USC 490)
- Establishes 5 safety performance measures
  1. Number of Fatalities (Victims)
  2. Rate of Fatalities (victims) per 100 million VMT
  3. Number of Serious Injuries (Victims)
  4. Rate of Serious Injuries (victims) per 100 million VMT
  5. Number of Non-motorized Fatalities and Non-motorized Serious Injuries (Victims)
- 5-Year Rolling Averages

## MAP 21 - Federal Requirements

### Forecasted Reductions

Measure	Single Yr (SCAG)	**Baseline 5-Year Rolling average (SCAG)	State methodology applied to SCAG Region (5 Year Rolling Average)	Caltrans Targets for the State 2019
	***2017	2016	2019 Prediction (SCAG)	2019 Prediction (State)
Number of Fatalities	1505	1403	1467	3445.4
Rate of Fatalities per 100 M VMT	0.906	0.88	0.895	0.995
Number of Serious Injuries	6386	5044	5552	12688.1
Rate of Serious Injuries per 100 MVMT	3.843	3.162	3.366	3.661
Total Number of Non- motorized Collisions	2118	2046.4	2133	3949.8

\* In all cases, referring to victims, not collisions

\*\*2016 data was updated after establishing targets for 2018 so updated data is used to establish targets for 2019

\*\*\*2017 Numbers are preliminary

## Zero Traffic Fatalities Taskforce - Assembly Bill 2363



- Goal: Coordinated process for early engagement of all parties to develop policies to reduce traffic fatalities to zero
- The Secretary of Transportation will submit findings to the Legislature on or before 1/1/2020
- The findings shall include, but are not limited to:
  - Existing process for establishing speed limits
  - Existing policies on how to reduce speeds on local streets and roads.
  - Recommendation of alternatives to the 85th percentile
  - Engineering recommendations on how to increase vehicular, pedestrian, and bicycle safety.
  - Existing reports and analyses on calculating the 85th percentile at the local, state, national, and international level.
  - Usage of the 85th percentile in urban and rural settings.
  - How local bicycle and pedestrian plans affect the 85th percentile.



Hina Chanchlani  
Chanchlani@scag.ca.gov  
213-236-1829  
[www.scag.ca.gov](http://www.scag.ca.gov)





Southern California Association of Governments  
900 Wilshire Boulevard, Suite 1700, Los Angeles, California 90017  
September 5, 2019

To: Energy and Environment Committee (EEC)

EXECUTIVE DIRECTOR'S  
APPROVAL

From: Alison Linder, Senior Regional Planner, Goods Movement &  
Transportation Finance, (213) 236-1934, linder@scag.ca.gov

Subject: Connect SoCal Goods Movement Environmental Strategy

**RECOMMENDED ACTION:**

For Information Only

**STRATEGIC PLAN:**

This item supports the following Strategic Plan Goal 1: Produce innovative solutions that improve the quality of life for Southern Californians.

**EXECUTIVE SUMMARY:**

*The 2020 Connect SoCal plan includes a strategy to address air quality concerns through cleaner and more efficient operation of vehicles, largely by modifying or replacing the existing fleet with near zero and zero emission vehicles. This report will review this plan, along with a set of action steps to be taken by SCAG and its regional partners.*

**BACKGROUND:**

Ships, trucks, trains and other goods movement equipment are among the largest contributors to regional air pollution, which must be reduced to comply with federal law, meet GHG reduction goals, and improve quality of life. Criteria pollutants such as NOx, PM2.5, SOx and CO can have significant public health impacts, including contributing to asthma and other respiratory ailments, increased stress and increased cancer risk. Freight transport is also a major producer of greenhouse gas (GHG) emissions and a user of energy in the form of diesel fuel. In the South Coast Air Basin, attaining the national ozone standards will require reductions in emissions in NOx of 45% by 2023 and 55% by 2031 beyond already anticipated reductions resulting from current rules, programs and commercially-available technologies.

To help the region meet these goals, the 2020 Connect SoCal plan includes a strategy to address air quality concerns through cleaner and more efficient operation of vehicles, largely by modifying or replacing the existing fleet with zero and near zero emission technologies or efficiency improvements. The 2020 plan expands on the strategy developed in the 2012 and 2016 RTP/SCS, which describes four phased approach to technology development and deployment. New technologies are defined, built and tested in an iterative fashion until they can be deployed as a

**OUR MISSION**

*To foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.*

**OUR VISION**

*Southern California's Catalyst for a Brighter Future*

**OUR CORE VALUES**

*Be Open | Lead by Example | Make an Impact | Be Courageous*

commercially viable product.

The four phases are:

- Phase 1: Project Scoping and Evaluation of Existing Work
- Phase 2: Development and Prototype Demonstrations
- Phase 3: Initial Deployment and Operational Demonstration
- Phase 4: Full-Scale Demonstrations and Commercial Deployment

This report will review the four phases of this process and describe examples of how regional partners have been working through this cycle. For instance, several class 8 heavy duty trucks have been developed, but they have not been demonstrated at scale. Next steps are to deploy these trucks in larger fleets to test their performance.

As compared to the 2012 and 2016 RTP/SCS, the 2020 Connect SoCal plan includes an expanded focus on opportunities to develop the charging and fueling infrastructure needed to support a transition to zero emission goods movement. The plan also encourages that a life cycle approach is taken in consideration of new technologies, looking at the materials made to manufacture them, and how they may eventually be disposed of or recycled. While the plan includes a long term goal of a zero-emission<sup>1</sup> goods movement system where technically feasible and economically viable, near zero-emissions technologies may also serve as bridging options to continue to reduce emissions below today's levels.

The updated plan also includes a set of action steps to be taken by SCAG and its regional partners. These action steps include:

- Convene stakeholders to collaboratively determine regional priorities, pursue funding, and support a regional vision
- Convene stakeholders to proactively address concerns with battery development and disposal and work with statewide agencies to advocate that batteries be designed for reuse, recycling and safe disposal and potentially advocate for producer mandates. Partners may include DTSC, CalRecycle and the Product Stewardship Council.
- Program sound projects that improve the efficiency of the goods movement system and therefore reduce emissions
- Program projects that reduce neighborhood and community impacts
- Engage with providers to incorporate fueling and charging infrastructure into regional projects
- Incorporate incentives into infrastructure planning. These incentives may include reduced tolls for zero-emission vehicles, expedited access to freight facilities, preferred access for

---

<sup>1</sup> As described in this report and presentation, the term “zero-emission” refers to technologies that are zero tailpipe emissions, where emissions are not released at the location of the vehicle, but may still be produced off-site through the production of energy needed to power the vehicle.

last mile delivery, dedicated lanes for advanced clean technology trucks, or low emission zones.

- Identify and secure funding to support technology evaluation and demonstration efforts, execute these projects and share the results with partner agencies and private sector partners.
- Support the development of policies and regulatory efforts that accelerate technology development and deployment.
- Work with and engage regional businesses to best support them in this transition.
  - Continue to engage and collaborate with the private sector to continuously solicit feedback on operational parameters and real world operating conditions.
  - Encourage private sector partners to participate in operational demonstrations. Partners are needed to evaluate the performance of technologies in a real world setting.
  - Support partnerships with OEMs for technology development and send a consistent signal to OEMs that there will be market demand for the new technologies they are investing in and creating.

#### Ongoing and Potential Study Areas for SCAG:

- A component of the forthcoming Integrated Passenger and Freight Rail Forecast will focus on emission reduction strategies for rail operations
- A forthcoming study funded by a Caltrans Sustainable Communities Grant will further study how communities are impacted by goods movement and will make recommendations at the community level for environmental mitigations.
- Conclude the ongoing study, Paths to Clean Vehicle Technology and Alternative Fuels Implementation in San Bernardino County, which will recommend county actions that could facilitate clean vehicle deployment
- Continued study of Last Mile Delivery conditions and curbside access will consider recommendations and pilot projects such as low-emission zones or cargo bikes.
- Convene a study to determine new locations for the installation of charging/fueling infrastructure, and make recommendations on locations for large scale deployment pilot projects. Site screening criteria would be developed and applied to SCAGs existing knowledge of goods movement activity in the region.

By working together SCAG and its partners can achieve the goal of a robust zero-and near zero-emission freight system.

#### **FISCAL IMPACT:**

Work associated with this item is included in the FY 2019-20 Overall Work Program (OWP) budget under project number 130-0162.18, Goods Movement Planning.



**ATTACHMENT(S):**

1. PowerPoint Presentation: GM Environmental Plan

# Goods Movement Environmental Strategy and Action Plan

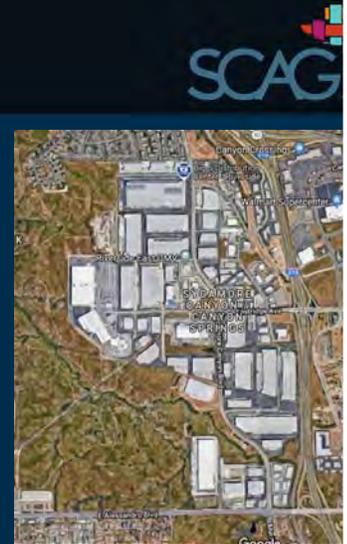
## SCAG Energy and Environment Committee

Alison Linder  
Senior Regional Planner  
September 2019



## Goods Movement Environmental Challenges

- Land Consumption
- Congestion
- Noise
- Consumption and Consumer Waste
- **Air Quality**



# Air Quality Requirements



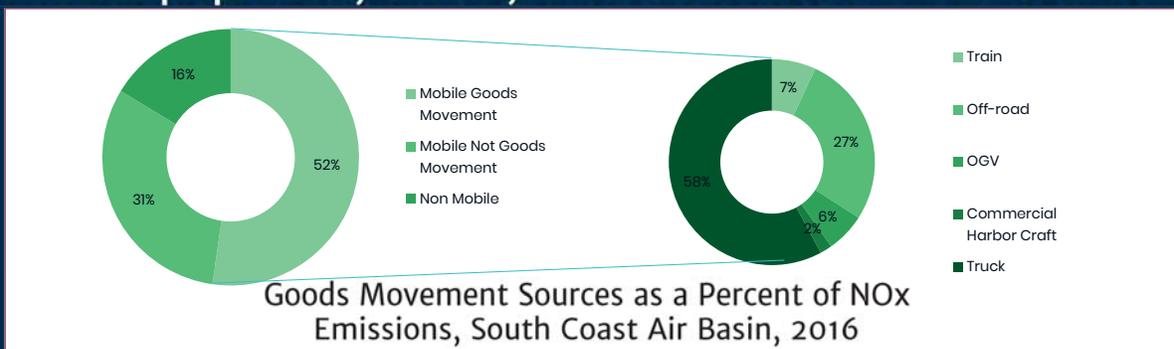
- South Coast region must reduce NOx emissions by 45 percent above and beyond the existing regulations by 2023 and 55% by 2031
- Statewide GHG reductions of 40% below 1990 by 2030, and 80% below 1990 by 2050.

NAAQS Federal Attainment Date	Standard
2024	1997 8 hour ozone
2032	2008 8 hour
2038	2015 8 hour
2019	24 hour PM2.5
2025	2012 annual PM 2.5

# Goods Movement Emission Sources, NOx



- Of 2016 SCAB NOx emissions;
  - 83% are Mobile Sources
  - 52% are Goods Movement related sources
  - and 30% were from trucks
- Of GM sources, trucks are largest source of NOx followed by off road equipment, trains, OGV and commercial harbor craft



## Related Regulatory Initiatives Under Development



- SCAQMD Facility Based Source Measures



- California Sustainable Freight Action Plan
- CARB initiatives
  - Freight handbooks
  - Stricter federal and international standards
  - Low NOx Certification standard
  - Advanced Clean Truck Regulation
- Federal Clean Truck Initiative NOx in-use standards

## Goods Movement Technology Advancement Plan



Phases of Technology Development and Deployment



- Four Step Technology Advancement Strategy
  - Phase 1: Project Scoping and Evaluation of Existing Work
  - Phase 2: Development and Prototype Demonstrations
  - Phase 3: Initial Deployment and Operational Demonstration
  - Phase 4: Full-Scale Demonstrations and Commercial Deployment

## SCAG and Partner Roles and Responsibilities



- Convene Zero and Near Zero Emission Freight Collaborative
- Engage with providers to incorporate fueling and charging infrastructure into regional projects
- Incorporate incentives into infrastructure planning.
- Support policies and regulatory efforts that accelerate technology development and deployment.
- Work with and engage regional businesses to best support them in this transition
- Proactively address concerns with battery development and disposal
- Identify and secure funding to support technology evaluation and demonstration efforts

## Ongoing and Potential Study Areas for SCAG



- Integrated Passenger and Freight Rail Forecast will include emission reduction strategies for rail
- Last Mile Delivery and Curbside Access studies will consider pilot project recommendations such as low-emission zones or cargo bikes
- Pathways to Alternative Vehicles Study in San Bernardino County to recommend county actions that could facilitate clean vehicle deployment
- Environmental Justice Study to determine interventions for impacted communities
- New Study may determine ideal locations for charging/fueling infrastructure and identify potential pilot project sites

# Targets and Milestones



Date	Target	Action Steps
2020	CARB finalizes freight handbooks to provide guidance on the development of freight facilities	<p><u>Phase 1, 2, 3</u></p> <ul style="list-style-type: none"> <li>• ZE Freight Collaborative is reconvened</li> <li>• Partners identify additional federal, state and private funding</li> <li>• OEMs continue development and testing of ZE and NZE technologies.</li> <li>• Lessons from early demonstration projects are shared and built upon</li> <li>• As feasibility is demonstrated, efforts are scaled up.</li> <li>• Technology users put test technologies into service.</li> </ul> <p><u>Phase 1, 2, 3, 4</u></p> <ul style="list-style-type: none"> <li>• Partners identify additional federal, state and private funding sources to incentivize commercial deployment.</li> <li>• New technologies are deployed as required, or through large scale incentive programs</li> </ul>
2020	AQMD Finalizes Facility Based Source Measures for Ports and Warehouses.	
2023	Heavy Duty Vehicles in California must have model year 2010 engines or newer.	
2024	SCE will deploy 870 charging sites to support 8500 medium and heavy duty trucks. (Charge Ready Transport Goal)	
2025	So Cal Gas goal to include 20% Renewable Natural Gas in their pipeline.	
2030	All terminal equipment electrified at San Pedro Bay Ports (CAAP goal)	
2030	SCE to electrify 15% of medium duty and 6% of heavy duty vehicles (Clean Power and Electrification Pathway Goal)	
2030	CARB target of 100,000 deployed zero-emission freight vehicles and equipment	
2030	15% of sales for class 2B-3 and class 7-9 and 50% of sales for Class 4-8 vocational trucks are zero emissions as required by the Advanced Clean Truck Regulation	
2035	Port Drayage Truck Registry only accepts Zero Emission trucks (roughly 17,000 trucks)	

Attachment: PowerPoint Presentation: GM Environmental Plan (Connect SoCal Goods Movement Environmental Strategy)

# Potential Technologies for Truck and Rail



## Truck

- Combustion Engine and Aerodynamic Improvements
- Alternative Fuels
- Hybrid Electric Trucks
- Battery Electric Trucks
- Fuel-Cell Trucks

## Rail

- Accelerated Tier 4 and 5 Deployment
- Distributed Power Units
- After Treatment (Filters)
- Liquid Natural Gas locomotives
- Hybrid electric engine or battery tender car
- Electric Catenary System
- Dual Mode Locomotive
- Linear Synchronous Motor



# Goods Movement Technology Advancement Plan



- Technology Neutral
- Encourages Deployment of Near Zero and Zero Emission Technologies
- Allows for Continuous Innovation
- Includes consideration of charging and fueling infrastructure (in addition to vehicle technologies)
- Encourages that life cycle impacts be considered in addition to in use emissions
- Requires regional cooperation
- Requires significant investment



Cradle to Grave Product Lifecycle

## Thank you

Alison Linder

[linder@scag.ca.gov](mailto:linder@scag.ca.gov)

213-236-1934

